



City of Greater Dandenong Storm and Flood Emergency Plan

A Sub-Plan of the Municipal
Emergency Management Plan

For City of Greater Dandenong
And
VICSES Unit Greater Dandenong

V3.0 April 2019



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Distribution List

Copy No.	Issue To:		Date
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Original	City of Greater Dandenong	MEMP Committee Executive Officer	
1	City of Greater Dandenong	Council Office Copy	
2	City of Greater Dandenong	MEMP Committee Chairman	
3	City of Greater Dandenong	MERO	
4	City of Greater Dandenong	Deputy MERO	
5	City of Greater Dandenong	MRM	
6	VicPol	MERC	
7	VicPol	RERC	
8	VICSES Regional Officer Emergency Management	VICSES Central Region RHQ	
9	VICSES Controller	VICSES Unit Springvale	
10	Melbourne Water	Team Leader Hydrology & Flood Warnings	
11	Flood Warning Manager	Bureau of Meteorology (Flood Warning)	
12	DEPI	Port Phillip Office	
13	Ambulance Victoria	Emergency Management Department	
14	Department of Human Services	Manager Emergency Management	
15	CFA District 8	Operations Manager	
16	VicRoads	Regional Emergency Management Officer	

Document Transmittal Form / Amendment Certificate

This Municipal Flood Emergency Plan (MFEP) will be amended, maintained and distributed as required by VICSES in consultation with the City of Greater Dandenong

Suggestions for amendments to this Plan should be forwarded to VICSES Central Regional, Unit 6, 3-5 Gilda Court, MULGRAVE 3120.

Amendments listed below have been included in this Plan and promulgated to all registered copyholders.

Amendment Number	Date of Amendment	Amendment Entered By	Summary of Amendment
0.1	March 2013	R. Butler	Initial population of maps and appendices
0.2	27/5/2013	R. Butler	Mapping data updated and appendices amended
1.0	17/6/2013	M. Taranto	Update of information in plan to reflect updated mapping
2.0	29/6/2016	R. Butler	Update of Appendix A, B, C & F. Addition of Appendix G.
3.0	05/4/2019	R. Butler	Update of Appendix A, B, C, F & G. Addition of Appendix H

List of Abbreviations & Acronyms

The following abbreviations and acronyms are used in the Plan:

The following abbreviations and acronyms are used in the Plan			
AAR	After Action Review	FZ	Floodway Zone
AEP	Annual Exceedance Probability	IC	Incident Controller
AHD	Australian Height Datum (the height of a location above mean sea level in metres)	ICC	Incident Control Centre
AIDR	Australian Institute of Disaster Resilience	IMT	Incident Management Team
AIIMS	Australasian Inter-service Incident Management System	IMS	Incident Management System
AoCC	Area of Operations Control Centre / Command Centre	EMLO	Emergency Management Liaison Officer
ARI	Average Recurrence Interval	LSIO	Land Subject to Inundation Overlay
ARMCANZ	Agricultural & Resource Management Council of Australia & New Zealand	MECC	Municipal Emergency Coordination Centre
AV	Ambulance Victoria	MEMP	Municipal Emergency Management Plan
BoM	Bureau of Meteorology	MEMPC	Municipal Emergency Management Planning Committee
CEO	Chief Executive Officer	MERC	Municipal Emergency Response Coordinator
CERA	Community Emergency Risk Assessment	MERO	Municipal Emergency Resource Officer
CFA	Country Fire Authority	MFB	Metropolitan Fire and Emergency Services Board
CMA	Catchment Management Authority	MRM	Municipal Recovery Manager
RERC	Regional Emergency Response Coordinator	PMF	Probable Maximum Flood
RERCC	Regional Emergency Response Coordination Centre	RCC	Regional Control Centre
DHHS	Department of Health and Human Services	RDO	Regional Duty Officer
Dol	Department of Infrastructure	SBO	Special Building Overlay
DEDJTR	Department of Economic Development, Jobs, Transport, Resources	SCC	State Control Centre
DELWP	Department of Environment, Land, Water and Planning	SERP	State Emergency Response Plan
EMMV	Emergency Management Manual Victoria	SEWS	Standard Emergency Warning Signal
EMT	Emergency Management Team	SHERP	State Health Emergency Response Plan
EO	Executive Officer	SOP	Standard Operating Procedure
FO	Floodway Overlay	VicPol	Victoria Police
FWS	Flood Warning System	VICSES	Victoria State Emergency Service

Glossary

Below are terms defined for the purpose of this Plan:

Term	Definition
Annual Recurrence Interval (ARI)	The average, or expected, value of the period between exceedances of a given rainfall or flow total accumulated over a given duration
Annual Exceedance Probability (AEP)	The probability that a given total rainfall or flow is accumulated over a given duration will be exceeded in any one year
Flash flooding	Sudden unexpected flooding caused by local heavy rainfall or rainfall in another area. Often defined as flooding which occurs within six hours of the rain which causes flooding.
Flood mapping	The process where the extent of flooding is documented in mapping software based on flood studies and surface elevations
Floodplain	Area of land adjacent to a creek, river, estuary, lake, dam or artificial channel, which is subject to inundation.
Hot spot	A known flood problem area which has a history of repeat flooding of a road, crossing or property, often highlighted through anecdotal information and customer complaints. It is a localised issue which will vary from council to council.
Natural drainage system	Flow paths which are largely undeveloped by human sources, these include rivers, streams, natural depressions and wetlands. All natural systems greater than 60 ha are managed by Melbourne Water.
Overland flooding	Flooding by local runoff caused by heavier than usual rainfall. Overland flooding can be caused by local flow exceeding the capacity of an urban stormwater drainage system or by the backwater effects of mainstream flooding causing urban stormwater drainage system to overflow. For local government areas this is over the 5 year ARI in residential or over 10yr ARI in commercial/industrial. For Melbourne Water catchment areas this is for all other ARIs up to the 100yr ARI. Note that not all overland flows cause flooding under the definition in the Knox City Service Plan Appendices.
Retarding Basin	A Retarding Basin is a large, open, free draining basin that temporarily stores collected stormwater runoff. These basins are normally maintained in a dry condition between storm events.
Stormwater drainage system	A series of drains and waterways into which surface and stormwater flows. Features of a stormwater drainage system can include underground pipe drains, open channels, retarding basins, floodways, waterway improvements, water sensitive urban design, integrated water management systems and environment protection measures. All drainage under 60 ha is maintained and operated by Greater Dandenong Council
Stormwater Runoff	The amount of rainfall that enters the stormwater drainage system, (via pits, pipes, retarding basins, water sensitive structures, harvesting tanks and overland flow paths) after water which is not absorbed into the ground has been taken into account.

Part 1. INTRODUCTION

1.1 Municipal Endorsement

This Municipal Flood Emergency Plan (MFEP) has been prepared by the Municipal Flood Planning Committee (MFPC) and with the authority of the City of Greater Dandenong Municipal Emergency Management Planning Committee (MEMPC) pursuant to Section 20 of the Emergency Management Act 1986 (as amended).

This MFEP is a sub plan of the City of Greater Dandenong Council Municipal Emergency Management Plan (MEMP), is consistent with the Emergency Management Manual Victoria (EMMV), the Victoria Flood Management Strategy (DNRE, 1998a), the Regional Flood Emergency Plan and the State Flood Emergency Plan and takes into account the outcomes of the Community Emergency Risk Management (CERM) process undertaken by the Municipal Emergency Management Planning Committee (MEMPC).

This Municipal Flood Emergency Plan is a result of the cooperative efforts of the City of Greater Dandenong Council Flood Planning Committee (MFPC) and its member agencies.

This Plan is endorsed by the City of Greater Dandenong MEMPC as a sub-plan to the MEMP.

Municipal Flood Planning Committee Endorsement

.....	
Matthew Berry	Date
Chair – City of Greater Dandenong Storm Flood Sub Committee	

Municipal Emergency Management Planning Committee Endorsement

.....	
Mark Doubleday, Chair Dandenong MEMPC	Date
Director of Emergency Management	

1.2 The Municipality

An outline of City of Greater Dandenong in terms of its location, demography and other general matters is provided in the MEMP. An outline of the flood threat is provided in Appendix A of this Plan.

1.3 Purpose and Scope of this Flood Emergency Plan

The purpose of this MFEP is to detail arrangements agreed for the planning, preparedness/prevention, response and recovery from flood incidents within the City of Greater Dandenong

As such, the scope of the Plan is to:

- Identify the Flood Risk to City of Greater Dandenong;
- Support the implementation of measures to minimise the causes and impacts of flood incidents within the City of Greater Dandenong;
- Detail Response and Recovery arrangements including preparedness, Incident Management, Command and Control;
- Identify linkages with Local, Regional and State emergency and wider planning arrangements with specific emphasis on those relevant to flood.

1.4 Municipal Flood Planning Committee (MFPC)

Membership of the City of Greater Dandenong Flood Planning Committee (MFPC) will comprise of the following representatives from the following agencies and organisations:

- VICSES (i.e. Unit Controller & Regional Officer – Emergency Management) (**Chair**),
- City of Greater Dandenong,
- Victoria Police (i.e. Municipal Emergency Response Co-ordinator) (MERC),
- Catchment Management Authority,
- Other agencies as required from time to time

1.5 Responsibility for Planning, Review & Maintenance of this Plan

This Municipal Flood Emergency Plan must be maintained in order to remain effective.

VICSES through the Flood Planning Committee has responsibility for preparing, reviewing, maintaining and distributing this plan.

The MFPC will meet at least once per year.

The plan should be reviewed to, where necessary, amend arrangements and information contained in the plan:

- following any new flood study;
- following a change in non-structural and/or structural flood mitigation measures;
- after the occurrence of a significant flood event within the Municipality to review and where necessary amend arrangements and information contained in this Plan.
- following an exercise where parts of this plan were used

1.6 Endorsement of the Plan

The MFEP will be circulated to MFPC members seeking acceptance of the draft plan.

The MFEP will endorse the plan upon acceptance.

The plan is forwarded to the MEMPC with the recommendation to include the MFEP as a sub-plan of the MEMPlan.

Part 2. PREVENTION / PREPAREDNESS ARRANGEMENTS

2.1 Community Awareness for all Types of Flooding

Details of this MFEP will be released to the community through local media, the FloodSafe program, websites (VICSES and the Municipality) upon formal adoption and as by agreement with by the City of Greater Dandenong and VICSES.

VICSES with the support of City of Greater Dandenong and Melbourne Water will coordinate community education programs for flooding within the council area. E.g. FloodSafe / StormSafe.

2.2 Structural Flood Mitigation Measures

The following summary of structural flood mitigation measures exist within the Council area:

- Levees (location, owner, maintenance responsibility, and protection levels).
- Retarding Basins (location, owner, maintenance responsibility, and protection levels) etc.

Refer to appendix C for detailed information of structural flood mitigation measures.

2.3 Non-structural Flood Mitigation Measures

2.3.1 Exercising the Plan

Arrangements for exercising this Plan will be at the discretion of the MEMPC. This Plan should be regularly exercised, preferably on an annual basis. Refer to section 4.7 of the EMMV for guidance.

2.3.2 Flood Warning

Arrangements for flood warning are contained within the State Flood Emergency Plan and the EMMV (Part 3.7) and on the BoM website.

Specific details of local flood warning system arrangements are provided in appendix E.

2.3.3 Flood Wardens / Observers

Flood Wardens provide a means of gathering information in real time on flood behaviour along a stream system, and a network for the distribution of community information and warnings to the community along the stream system.

There are currently no Flood Wardens / Observers specifically aligned with the City of Greater Dandenong.

Part 3. RESPONSE ARRANGEMENTS

3.1 Introduction

3.1.1 Activation of Response

Flood response arrangements may be activated by the Regional Duty Officer (RDO) VICSES Central Region or Incident Controller.

The Regional Duty Officer (RDO) VICSES Central Region or Incident Controller will activate agencies as required and documented in the State Flood Emergency Plan.

3.1.2 Responsibilities

There are a number of agencies with specific roles that will act in support of VICSES and provide support to the community in the event of a serious flood within the City of Greater Dandenong. These agencies will be engaged through the EMT.

The general roles and responsibilities of supporting agencies are as agreed within the City of Greater Dandenong MEMP, EMMV (Part 7 'Emergency Management Agency Roles'), State Flood Emergency Plan and Regional Flood Emergency Plan.

3.1.3 Municipal Emergency Coordination Centre (MECC)

Liaison with the MECC will be through the established Division/Sector Command and through Municipal involvement in the Incident EMT, in particular the Municipal Emergency Response Coordinator (MERC). The VICSES RDO / ICC will liaise with the MECC directly if no Division/Sector Command is established.

The function, location, establishment and operation of the MECC will be as detailed in the City of Greater Dandenong MEMP.

In the instance where a MECC is not established, VICSES will liaise with the MERO.

3.1.4 Escalation

Most flood incidents are of local concern and an appropriate response can usually be coordinated using local resources. However, when these resources are exhausted, the State's arrangements provide for further resources to be made available, firstly from neighbouring Municipalities (on a regional basis) and then on a State-wide basis.

Resourcing and event escalation arrangements are described in the EMMV ('State Emergency Response Plan' – section 3.5).

3.2 Strategic Control Priorities

To provide guidance to the Incident Management Team (IMT), the following strategic control priorities shall form the basis of incident action planning processes:

1. Protection and preservation of life is paramount - this includes:
 - a. Safety of emergency services personnel, and;
 - b. Safety of community members including vulnerable community members and visitors/tourist located within the incident area.
2. Issuing of community information and community warnings detailing incident information that is timely, relevant and tailored to assist community members make informed decisions about their safety.;
3. Protection of critical infrastructure and community assets that supports community resilience;
4. Protection of residential property as a place of primary residence;
5. Protection of assets supporting individual livelihoods and economic production that supports individual and community financial sustainability
6. Protection of environmental and conservation values that considers the cultural, biodiversity, and social values of the environment;

Circumstances may arise where the Incident Controller is required to vary these priorities, with the exception being that the protection of life should remain the highest. This shall be done in consultation with the State Controller and relevant stakeholders based on sound incident predictions and risk assessments.

3.3 Command, Control & Coordination

The Command, Control and Coordination arrangements in this Municipal Flood Emergency Plan must be consistent with those detailed in State and Regional Flood Emergency Plans. For further information, refer to sections 3.4, 3.5 & 3.6 of the EMMV.

3.3.1 Control

Functions 5(a) and 5(c) at Part 2 of *the Victoria State Emergency Service Act 1986 (as amended)* detail the authority for VICSES to plan for and respond to flood.

Part 7.1 of the EMMV prepared under the *Emergency Management Act 1986 (as amended)*, identifies VICSES as the Control Agency for flood. It identifies DEPI as the Control Agency responsible for “*dam safety, water and sewerage asset related incidents*” and other emergencies

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

3.3.2 Incident Controller (IC)

An Incident Controller (IC) will be appointed by the VICSES (as the Control Agency) to command and control available resources in response to a flood event on the advice of the

Bureau of Meteorology (or other reliable source) that a flood event will occur or is occurring. The Incident Controller responsibilities are as defined in Part 3.5 of the EMMV

3.3.3 Incident Control Centre (ICC)

As required, the Incident Controller will establish an Incident Control Centre (ICC) from which to initiate incident response command and control functions. The decision as to if and when the ICC should be activated, rests with the Control Agency (i.e. VICSES).

Pre-determined VICSES Incident Control Centre locations are

- SES Mulgrave ICC, Unit 6, 3-5 Gilda Court, Mulgrave
- CFA Ferntree Gully ICC, Acacia Rd, Upper Ferntree Gully
- CFA Moorooduc ICC, 755 Derril Rd, Moorooduc

3.3.4 Divisions and Sectors

To ensure that effective Command and Control are in place, the Incident Controller may establish Divisions and Sectors depending upon the complexity of the event and resource capacities.

Divisions and Sectors may be established to assist with the management of flooding within the Municipality

Pre-determined VICSES Division Command locations are:

- SES Pakenham Unit, Princess Hwy, Pakenham
- SES Frankston Unit, 32A McCulloch Avenue, Seaford
- SES Oakleigh Unit, 90 – 92 Bignell Rd, East Bentleigh

Sector Command locations will be determined as required.

3.3.5 Incident Management Team (IMT)

The Incident Controller will form an Incident Management Team (IMT).

Refer to 3.5 of the EMMV for guidance on IMTs and Incident Management Systems (IMs).

3.3.6 Emergency Management Team (EMT)

The Incident Controller will establish a multi-agency Emergency Management Team (EMT) to assist the flood response. The EMT will consist of key personnel with appropriate authority from stakeholder agencies and relevant organisations who need to be informed of strategic issues related to incident control and who are able to provide high-level strategic guidance and policy advice to the Incident Controller for consideration in developing incident management strategies.

Organisations, including, required within the EMT will provide an Emergency Management Liaison Officer (EMLO) to the ICC if and as required as well as other staff and / or resources identified as being necessary, within the capacity of the organisation.

Refer to 3.5 of the EMMV for guidance on EMTs.

3.3.7 On Receipt of a Flood Watch / Severe Weather Warning

The VICSES RDO (until an incident controller is appointed) or the Incident Controller will undertake actions as defined within the flood intelligence cards (appendix C). General considerations by the VICSES RDO/ Incident Controller will be as follows:

- Review flood intelligence to assess likely flood consequences
- Monitor weather and flood information – www.bom.gov.au
- Assess Command and Control requirements.
- Review local resources and consider needs for further resources regarding personnel, property protection, flood rescue and air support
- Notify and brief appropriate officers. This includes Regional Control Centre (RCC) if established, State Control Centre (SCC) if established, City of Greater Dandenong, other emergency services through the EMT.
- Assess ICC readiness including staffing of IMT and EMT and open if required
- Ensure flood bulletins and community information are prepared and issued to the community
- Monitor watercourses and undertake reconnaissance of low-lying areas
- Develop media and community information management strategy
- Ensure flood mitigation works are being checked by owners
- Develop and issue incident action plan, if required
- Develop and issue situation report, if required

3.4 Response to Flash Flooding

Emergency management response to flash flooding should be consistent with the guideline for the emergency management of flash flooding contained within the State Flood Emergency Plan.

When conducting pre-event planning for flash floods the following steps should be followed, and in the order as given:

1. Determine if there are barriers to evacuation by considering warning time, safe routes, resources available and etc.;
2. If evacuation is possible, then evacuation should be the adopted strategy and it must be supported by a public information capability and a rescue contingency plan;
3. Where it is likely people will become trapped by floodwaters due to limited evacuation options safety advice needs to be provided to people at risk advising them not to attempt to flee by entering floodwater if they become trapped, and that it may be safer to seek the highest point within the building and to telephone 000 if they require rescue. This advice needs to be provided even when evacuation may be possible, due the likelihood that not all community members will evacuate.
4. For buildings known to be structurally un-suitable an earlier evacuation trigger will need to be established (return to step 1 of this cycle).
5. If an earlier evacuation is not possible then specific preparations must be made to rescue occupants trapped in structurally unsuitable buildings either pre-emptively or as those people call for help.

During a flash flood it will often be difficult, due the rapid development of flooding, to establish emergency relief centres ahead of actually triggering the evacuation as is normal practice but this is insufficient justification for not adopting evacuation.

3.4.1 On Receipt of the First and Subsequent Flood Warnings

The VICSES RDO (until an incident controller is appointed) or the Incident Controller will undertake actions as defined within the flood intelligence cards (appendix C). General considerations by the VICSES RDO/Incident Controller will be as follows:

- Develop an appreciation of current flood levels and predicted levels. Are floodwaters, rising, peaking or falling?
- Review flood intelligence to assess likely flood consequences. Consider:
 - What areas may be at risk of inundation
 - What areas may be at risk of isolation
 - What areas may be at risk of indirect affects as a consequence of power, gas, water, telephone, sewerage, health, transport or emergency service infrastructure interruption
 - The characteristics of the populations at risk
- Determine what the at-risk community need to know and do as the flood develops.
- Warn the at-risk community including ensuring that an appropriate warning and community information strategy is implemented including details of:
 - The current flood situation
 - Flood predictions
 - What the consequences of predicted levels may be
 - Public safety advice
 - Who to contact for further information
 - Who to contact for emergency assistance
- Liaise with relevant asset owners as appropriate (i.e. water and power utilities)
- Implement response strategies as required based upon flood consequence assessment.
- Continue to monitor the flood situation – www.bom.gov.au/vic/flood/
- Continue to conduct reconnaissance of low-lying areas

3.5 Community Information and Warnings

Guidelines for the distribution of community information and warnings are contained in the State Flood Emergency Plan.

Community information and warnings communication methods available include:

- Emergency Alert;
- Phone messages (including SMS);
- Radio and Television;
- Two-way radio;
- Mobile and fixed public address systems;
- Sirens;

-
- Verbal Messages (i.e. Doorknocking);
 - Agency and Municipal Websites;
 - VICSES Flood Storm Information Line;
 - Variable Message Signs (i.e. road signs);
 - Community meetings;
 - Newspapers;
 - Email;
 - Telephone trees;
 - Community Flood Wardens;
 - Fax Stream;
 - Newsletters;
 - Letter drops;
 - Social media and/or social networking sites (i.e. twitter and/or Facebook).

Refer to **Appendix E** for the specific details of how community information and warnings are to be provided.

The release of flood bulletins and information with regard to response activities at the time of a flood event is the responsibility of VICSES, as the Control Agency.

Council has the responsibility to assist VICSES to warn individuals within the community including activation of flood warning systems, where they exist. Responsibility for public information, including media briefings, rest with VICSES as the Control Agency.

Other agencies such as CFA, DEPI and VICPOL may be requested to assist VICSES with the communication of community flood warnings.

In cases where severe flash flooding is predicted, dam failure is likely or flooding necessitating evacuation of communities is predicted, the Incident Controller may consider the use of the Emergency Alert System and Standard Emergency Warning System (SEWS).

DH will coordinate information regarding public health and safety precautions.

3.6 Media Communication

The Incident Controller through the Information Unit established at the ICC will manage Media communication. If the ICC is not established the RDO will manage all media communication.

3.7 Impact assessment

An impact assessment can be conducted in accordance with part 3 of the EMMV to assess and record the extent and nature of damage caused by flooding. This information may then be used to provide the basis for further needs assessment and recovery planning by DHS and recovery agencies.

3.8 Preliminary Deployments

When flooding is expected to be severe enough to cut access to towns, suburbs and/or communities the Incident Controller will consult with relevant agencies to ensure that resources are in place if required to provide emergency response. These resources might include emergency service personnel, food items and non-food items such as medical supplies, shelter, assembly areas, relief centres etc.

3.9 Evacuation

The decision to recommend or warn people to prepare to evacuate or to evacuate immediately rests with the Incident Controller.

Once the decision is made VicPol are responsible for the management of the evacuation process where possible. VICSES and other agencies will assist where practical. VICSES is responsible for the development and communication of evacuation warnings.

VicPol and/or Australian Red Cross may take on the responsibility of registering people affected by a flood emergency including those who have been evacuated.

Refer to section 3.8 of the EMMV and the Evacuation Guidelines for guidance of evacuations for flood emergencies.

Refer to **Appendix D** of this Plan for detailed evacuation arrangements for City of Greater Dandenong.

3.10 Flood Rescue

VICSES may conduct flood rescues. Appropriately trained and equipped VICSES units or other agencies that have appropriate training, equipment and support may carry out rescues.

Rescue operations may be undertaken where voluntary evacuation is not possible, has failed or is considered too dangerous for an at-risk person or community. An assessment of available flood rescue resources (if not already done prior to the event) should be undertaken prior to the commencement of Rescue operations.

Rescue is considered a high-risk strategy to both rescuers and persons requiring rescue and should not be regarded as a preferred emergency management strategy. Rescuers should always undertake a dynamic risk assessment before attempting to undertake a flood rescue.

Resources available for use for rescues to be carried out within City of Greater Dandenong are detailed in **Appendix D**.

3.11 Aircraft Management

Aircraft can be used for a variety of purposes during flood operations including evacuation, resupply, reconnaissance, intelligence gathering and emergency travel.

Air support operations will be conducted under the control of the Incident Controller.

The Incident Controller may request aircraft support through the State Air Desk located at the State Control Centre will establish priorities.

3.12 Resupply

Communities, neighbourhoods or households can become isolated during floods as a consequence of road closures or damage to roads, bridges and causeways. Under such circumstances, the need may arise to resupply isolated communities/properties with essential items.

When predictions/intelligence indicates that communities, neighbourhoods and/or households may become isolated, VICSES will advise businesses and/or households that they should stock up on essential items.

After the impact, VICSES can support isolated communities through assisting with the transport of essential items to isolated communities and assisting with logistics functions.

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

3.13 Essential Community Infrastructure and Property Protection

Essential Community Infrastructure and Property e.g. residences, businesses, roads, power supply etc. may be affected in the event of a flood.

The City of Greater Dandenong Council maintains a small stock of sandbags, and back-up supplies are available through the VICSES Regional Headquarters. The Incident Controller will determine the priorities related the use of sandbags, which will be consistent with the strategic priorities.

If VICSES sandbags are becoming limited in supply, then priority will be given to protection of Essential Community Infrastructure. Other high priorities may include for example the protection of historical buildings.

Property may be protected by:

- Sandbagging to minimise entry of water into buildings
- Encouraging businesses and households to lift or move contents
- Construction of temporary levees in consultation with the CMA, LGA and VICPOL and within appropriate approval frameworks.

The Incident Controller will ensure that owners of Essential Community Infrastructure are kept advised of the flood situation. Essential Community Infrastructure providers must keep the Incident Controller informed of their status and ongoing ability to provide services.

Refer to Appendix C for further specific details of essential infrastructure requiring protection and location of sandbag collection point(s).

3.14 Disruption to Services

Disruption to services other than essential community infrastructure and property can occur in flood events. Refer to **Appendix D** for specific details of likely disruption to services and proposed arrangements to respond to service disruptions in the City of Greater Dandenong area.

3.15 Road Closures

City of Greater Dandenong and VicRoads will carry out their formal functions of road closures including observation and placement of warning signs, road blocks etc. to its designated local and regional roads, bridges, walking and bike trails. City of Greater Dandenong Council staff may also liaise with and advise VicRoads as to the need or advisability of erecting warning signs and / or of closing roads and bridges under its jurisdiction. VicRoads are responsible for designated main roads and highways and Councils are responsible for the designated local and regional road network.

VICROADS and City of Greater Dandenong Council will communicate community information regarding road closures.

3.16 Dam Failure

DEPI is the Control Agency for dam safety incidents e.g. breach, failure or potential breach / failure of a dam, however VICSES is the Control Agency for any flooding that may result.

Major dams with potential to cause structural and community damage within the City of Greater Dandenong area are contained in **Appendix A**.

3.17 Waste Water related Public Health Issues and Critical Sewerage Assets

Inundation of critical sewerage assets including septic tanks and sewerage pump stations may result in water quality problems within the Municipality. Where this is likely to occur or has occurred the responsibility agency for the critical sewerage asset should undertake the following:

- Advise VICSES of the security of critical sewerage assets to assist preparedness and response activities in the event of flood;
- Maintain or improve the security of critical sewerage assets;
- Check and correct where possible the operation of critical sewerage assets in times of flood;
- Advise the ICC in the event of inundation of critical sewerage assets.

It is the responsibility of the City of Greater Dandenong Council Environmental Health Officer to inspect and report to the MERO on any water quality issues relating to flooding.

3.18 After Action Review

VICSES will coordinate the after action review arrangements of flood operations as soon as practical following an event.

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

Part 4. EMERGENCY RELIEF AND RECOVERY ARRANGEMENTS

4.1 General

Arrangements for recovery from a flood incident within the City of Greater Dandenong are detailed in the City of Greater Dandenong Council MEMP.

4.2 Emergency Relief

The decision to recommend the opening of an emergency relief centre rests with the Incident Controller. Incident Controllers are responsible for ensuring that relief arrangements have been considered and implemented where required under the State Emergency Relief and Recovery Plan (Part 4 of the EMMV).

The range and type of emergency relief services to be provided in response to a flood event will be dependent upon the size, impact, and scale of the flood. Refer to 4.4 of the EMMV for details of the range of emergency relief services that may be provided.

Details of the emergency relief arrangements and suitable emergency relief facilities identified for use during floods are detailed in the MEMP.

4.3 Animal Welfare

Matters relating to the welfare and rescue of livestock and companion animals, including feeding, rescue, and requests for emergency supply and/or delivery of fodder to stranded livestock are to be referred to DEPI.

4.4 Transition from Response to Recovery

VICSES as the Control Agency is responsible for ensuring effective transition from response to recovery. This transition will be conducted in accordance with existing arrangements as detailed in Part 3 Section 3.10 of the EMMV.

APPENDIX A - FLOOD THREATS FOR CITY OF GREATER DANDENONG

General

The City of Greater Dandenong is located approximately 25 kilometres south east of the Melbourne Central Business District and covers an area of 129.6 square kilometres. It is bordered by the municipalities of Monash (north), Kingston (west), Frankston (south), Casey (east) and Knox (north east). According to the Department of Planning and Community Development website, the City of Greater Dandenong's central activities district is Melbourne's second largest retail and commercial centre, including over 7,000 businesses, large shopping complexes at Dandenong and Keysborough and the Dandenong Market.

The City of Greater Dandenong is predominantly a residential and industrial area, with sections of rural land in the south. As of 2006, the City of Greater Dandenong has 10 square kilometres of agricultural land.

Major features of the City of Dandenong include:

- Dandenong CBD
- Dandenong Plaza
- Dandenong Market
- Heritage Hill Museum and Historic Gardens
- Dandenong Creek Trail
- Dandenong Hospital
- Chisholm Institute of TAFE (Dandenong Campus)
- Dandenong Basketball Stadium
- Sandown Racecourse and Entertainment Centre
- Springvale Crematorium and Necropolis.

The municipality is located predominantly in the Dandenong catchment, in which Dandenong Creek is the major creek. The Dandenong catchment ultimately leads to Port Phillip Bay.

Riverine Flooding

Large severe floods within the Municipality generally occur as a result of a moist warm airflow from northern Australia bringing moderate to heavy rainfall over a period of 12 hours or more following a prolonged period of general rainfall. The period of general rainfall "wets up" the catchments and (partially) fills both the on-stream dams and the natural floodplain storage. These combine to increase the runoff generated during the subsequent period of heavy rainfall.

Large but less severe floods result from sequences of cold fronts during winter and spring that progressively wet up the catchments and fill the on-stream dams and the natural floodplain storage. Prolonged moderate to heavy rain leads to major flooding.

Flash Flooding and Overland Flows

Short Duration, high intensity rainfall (usually associated with thunderstorms) can also cause localised flooding within the municipality along overland flow paths when the local urban drainage system surcharges. Such events, which are mainly confined to the summer months, do not generally create widespread flooding since they only last for a short time and affect limited areas. Flooding from these storms occurs with little warning and localised damage can be severe.

High intensity rainfall such as associated with thunderstorms giving average rainfall rates of more than 20mm/hour for an hour or more is likely to lead to flash flooding and / or overland flows, across the urbanised parts of the municipality.

Blocked or capacity impaired stormwater drains can also lead to overland flows and associated flooding: the drain surcharges and excess water flows above ground.

Description of Major Waterways and Drains

The municipality is located predominantly in the Dandenong catchment, in which Dandenong Creek is the major creek and tributaries include Bungalook Creek, Blind Creek, Eumemmerring Creek, Corhanwarrabul Creek and Mile Creek. The Dandenong catchment ultimately leads to Port Phillip Bay.

Patterson River is a partially man made waterway running through Patterson Lakes, Carrum and Bonbeach, approximately 6.2km in length. Patterson River also traverses north-east to south-west, discharging into Port Phillip Bay at the southern end of the municipality.

Mile Creek begins at the north-west extent of the municipal boundary and traverses south-east until it reaches Dandenong Creek north of Keysborough.

Dandenong Creek is the largest waterway and the main floodway through the City of Greater Dandenong region. It traverses approximately north-east to south-west from the Dandenong Ranges National Park and discharges into Mordialloc Creek and the manmade section of the Patterson River.

Melbourne Water Drains & Waterways	Suburb/s	Melbourne Water Drains & Waterways	Suburb/s
Australia Post Wetlands	Dandenong South	Knowles Rd Drain	Dandenong South
Carrum Outfall Drain	Bangholme, Dandenong South & Keysborough	Lyndhurst North Drain	Dandenong South
Chandler Road Drain	Keysborough	McFees Drain	Dandenong North
Cranbourne Outfall Drain	Lyndhurst	Mile Creek	Dandenong, Keysborough, Noble Park & Springvale
Dandenong Creek	Dandenong & Dandenong North	Mile Creek East Branch	Springvale
Dandenong East Drain	Dandenong	Mile Creek West Branch	Springvale
Dandenong South Drain	Dandenong South	Mordialloc Creek	Bangholme & Keysborough
Eastern Contour Drain	Bangholme, Dandenong South & Lyndhurst	Ordish Rd North Drain	Dandenong South & Keysborough
Edithvale Rd Drain	Keysborough, Springvale & Springvale South	Ordish Rd South Drain	Bangholme & Dandenong South
Eumemmerring Creek	Bangholme & Dandenong South	Parkmore Drain	Keysborough
Exells Drain	Dandenong North	Patterson River	Bangholme & Dandenong South
Five Ways Drain	Keysborough	Perry Rd Drain	Keysborough
Gartsides North Drain	Springvale South	Police Rd	Springvale
Greens Lane Drain	Dandenong South	Rings Drain	Dandenong North
Greens Lane East Drain	Dandenong South	Rodds Drain	Dandenong South & Lyndhurst
Haileybury Drain	Bangholme & Keysborough	Sheltons Drain Diversion Drain	Keysborough & Noble Park
Hallam South Drain	Dandenong South	Sheltons Drain West Branch	Keysborough
Hallam Valley Drain	Dandenong South	Smythes Drain	Bangholme
Hampton Park West Drain	Dandenong South	Springs Drain	Bangholme
Hampton Park Industrial Area Drain	Dandenong South	Springvale South Drain	Keysborough, Noble Park & Springvale South
Heatherton – Power Rd Drain	Dandenong	Wadsleys Drain	Bangholme
Keysborough Drain	Keysborough	Westall Drain	Springvale
Keysborough South Drain	Keysborough	Yarraman Creek	Dandenong, Dandenong North, Noble Park & Noble Park North

Table A1 – Melbourne Water Drains and Waterways within or bordering the City of Greater Dandenong

Flood Mitigation Systems

Flood mitigation has predominantly been developed in the form of twenty five Retarding Basins, four Pumping Stations and twenty seven Levees. These flood mitigation systems are as follows in the tables below. To view their locations and connecting waterway/drainage systems, see map B in **Appendix F**.

Retarding Basins

Melbourne Water Retarding Basin	On Drain/ Waterway	Area	Storage Capacity	Spillway Crest Level	Embankment Height & (Crest Level)	ANCOLD Hazard Rating	Buildings In Flow Path (dam breach)	Melway Reference
Abbotts	Eumemmerring Creek	2.0 ha	69 ML	No Spillway	2.0m (10.6m AHD)	Very Low	0	95 F8
Alexander Ave	Yarraman Creek	3.2 ha	37 ML	31.72m AHD	3.3m (32.5m AHD)	Very Low	0	89 K4
Burnham Crescent	Keysborough South D.S.	1.4 ha	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	94 C2
Chandler Road	Chandler Road Drain	2.4 ha	46.0 ML	No Spillway	0.5m (41.5m AHD)	Very Low	0	89 F11
Chapel Road	Sheltons Drain West Branch	0.4 ha	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	94 C1
Cheltenham Road	Edithvale Road Drain	3.0 ha	67.5 ML	15.6m AHD	1.7m (16.3m AHD)	Low	75	89 A8
Commercial Drive	Greens Lane East Drain	1.9 ha	200 ML	12.25m AHD	N/A	Low	0	95 G5
Dandenong Creek (Lower)	Dandenong Creek	2.1 ha	21 ML	11.83m AHD	0.7m (12.6m AHD)	Low	Unavailable	95 A1
Dandenong South	Dandenong South Drain	3.4 ha	50 ML	Unavailable	2.0m	Very Low	0	95 C9
Discovery Road	Eastern Contour Drain	1.3 ha	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	128 D1
Estate One	Hallam Valley	0.8 ha	8.9 ML	15.9m AHD	1.0m (15.9m AHD)	Very Low	Unavailable	96 B2
Greens Lane	Greens Lane Drain	1.5 ha	18.8 ML	Unavailable	1.3m (9.75m AHD)	Very Low	0	95 D9
Hallam Valley	Hallam Valley Contour Drain	27.3 ha	673 ML	No Spillway	1.5m (15.2m AHD)	Very Low	0	95 K4
Hidden Grove	Sheltons Drain West Branch	2.9 ha	37.7 ML	Unavailable	1.6m (9.3m AHD)	Very Low	25	94 B1
Keysborough South D.S.	Keysborough South D.S.	1.6 ha	23 ML	8.15m AHD	(8.40m AHD)	Unavailable	Unavailable	94 E2
Knowles Road	Hampton Park Industrial Area Drain	0.8 ha	Unavailable	No Spillway	N/A	Low	0	95 J7

Melbourne Water Retarding Basin	On Drain/ Waterway	Area	Storage Capacity	Spillway Crest Level	Embankment Height & (Crest Level)	ANCOLD Hazard Rating	Buildings In Flow Path (dam breach)	Melway Reference
Marriott Waters (City of Casey)	Cranbourne Outfall Drain	4.2 ha	115 ML	19.7m AHD	In Cut (20.5m AHD)	Low	0	128 K7
Perry Road Wetland	Dandenong Creek	8.2 ha	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	94 H7
Police Road (City of Knox)	Dandenong Creek	118.1 ha	660 ML	39.6m AHD	4.9m (42.7m AHD)	Very Low	0	81 E5
Somerfield Estate	Keysborough South D.S.	2.7 ha	48.7 ML	6.60m AHD	2.3m (6.95m AHD)	Very Low	Unavailable	94 C2
South Link	Eumemmering Creek	2.7 ha	43 ML	No Spillway	In Cut	Low	0	94 J4
Yarraman Creek	Yarraman Creek	3.8 ha	56.0 ML	45.2m AHD	3.0m (45.5m AHD)	Significant	Unavailable	80 J11

Table A2 – Melbourne Water Retarding Basins within the City of Greater Dandenong

Greater Dandenong City Council Retarding Basin	Suburb	Type	Melway Reference
Burden Park	Springvale South	Gravity Flow	89 A1
Deborah Court	Noble Park	Pumped	89 C4
Laidlaw Court	Keysborough	Valve Operation	89 A6
Louis Twohig Reserve	Dandenong North	Valve Operation	90 E1
Thornton Court Reserve	Dandenong North	Gravity Flow	81 D9
Turner Court Reserve	Dandenong	Gravity Flow	90 G4

Table A3 – Greater Dandenong City Council Retarding Basins

Pumping Stations

Greater Dandenong City Council Pumping Station	Suburb	Melway Reference
Cheltenham Road	Keysborough	
Deborah Court	Noble Park	89 C4
Douglas Street / Mons Parade Pedestrian Underpass	Noble Park	89 G3
Springvale Pedestrian Underpass	Springvale	80 C11

Table A5 – Greater Dandenong City Council Pumping Stations

Levees

Levee	Reach	Side	Levee Height	Levee Length	Expected Level of Protection	ANCOLD Hazard Rating	Consequences of Failure	Melway Reference
Carrum Outfall	Eumemmerring Creek to National Water Sports Centre.	East	3.0m	1.0km	Unavailable	Very Low	Eastern Treatment Plant may flood	97J2-94F10
Carrum Outfall	Eumemmerring Creek to National Water Sports Centre	West	3.0m	1.0km	Unavailable	Significant	16 residential properties and 6 industrial lots may flood	97J2-94F10
Carrum Outfall	Pillars Crossing to Eumemmerring Creek	West	3.0m	4.2km	Unavailable	Significant	8 residential properties and 2 industrial lots may flood	94F10-94G8
Carrum Outfall	Pillars Crossing to Eumemmerring Creek	East	4.0m	4.2km	Unavailable	Low	4 residential properties and 2 industrial lots may flood	94F10-94G8
Dandenong Creek	Bend Road to Greens Road	East	1.9m	0.9km	1% AEP flood event, freeboard Unavailable	Very Low	Unknown with recent Industrial development in area	89J12-94J2
Dandenong Creek	Bend Road to Greens Road	West	1.9m	0.9km	1% AEP flood event, freeboard Unavailable	Very Low	Nil consequence with wetland located behind levee	89J12-94J2
Dandenong Creek	Greens Road to Pillars Crossing	West	2.0m	2.3km	1% AEP flood event, freeboard Unavailable	Low	3 residential properties and 2 industrial lots may flood	94J2-94G7
Dandenong Creek	Greens Road to Pillars Crossing	East	2.0m	2.3km	1% AEP flood event, freeboard Unavailable	Low	1 Industrial lot may flood	94J2-94G7
Dandenong Creek	Heatherton Road (Ross St to David St)	North	3.0m	0.2km	1% AEP flood event, with approx. 1m freeboard	Very Low	Nil consequence expected	90 H5
Dandenong Creek	Heatherton Road (David St to Jesson St)	North	3.0m	0.3km	1% AEP flood event, with approx. 1m freeboard	Very Low	Nil consequence expected	90 H5
Eumemmerring Creek	Abbotts Road to Frankston-Dandenong Road	North	1.5m	1.3km	The 1% AEP flood level exceeds the levee height at the downstream end by 1.1m	Low	2 industrial lots may flood	95F8-95D9
Eumemmerring Creek	Abbotts Road to Frankston-Dandenong Road	South	1.5m	1.3km	1% AEP flood event, freeboard Unavailable	Low	3 industrial lots may flood	95F8-95D9
Eumemmerring Creek	Frankston-Dandenong Road to Eastern Contour Drain	North	2.3m	1.3km	1% AEP flood event, freeboard Unavailable	Low	1 industrial lot may flood	95D9-95A10
Eumemmerring Creek	Frankston-Dandenong Road to Eastern Contour Drain	South	2.2m	1.3km	1% AEP flood event, freeboard Unavailable	High B	152 residential properties, most located within the Big4 Dandenong Tourist Park and Willow Lodge Mobile Home Village likely to flood. 4	95D9-95A10

Levee	Reach	Side	Levee Height	Levee Length	Expected Level of Protection	ANCOLD Hazard Rating	Consequences of Failure	Melway Reference
							industrial lots may also flood	
Eumemmerring Creek	Eastern Contour Drain to Worsley Road	North	3.0m	1.1km	1% AEP flood event, freeboard Unavailable	Low	1 large industrial lot may flood	95A10-94H10
Eumemmerring Creek	Eastern Contour Drain to Worsley Road	South	3.0m	1.1km	1% AEP flood event, freeboard Unavailable	Very Low	Uninhabited land may flood	95A10-94H10
Eumemmerring Creek	Railway Line to Abbotts Road	North	2.4m	1.6km	1% AEP flood event, freeboard Unavailable	Significant	26 industrial lots may flood	95H5-95F8
Eumemmerring Creek	Railway Line to Abbotts Road	South	2.0m	1.6km	1% AEP flood event, freeboard Unavailable	Low	14 industrial lots may flood	95H5-95F8
Eumemmerring Creek	South Gippsland Hwy to Railway Line	North	2.0m	0.5km	Unavailable	Low	5 industrial lots may flood	95H5-95K4
Eumemmerring Creek	Eastlink to Patterson River	South	4.0m	0.7km	1% AEP flood event, freeboard Unavailable	Very Low	Eastern Treatment Plant may flood	94H10-94F10
Eumemmerring Creek	Eastlink to Patterson River	North	3.0m	0.7km	1% AEP flood event, freeboard Unavailable	Very Low	Rural land may flood	94H10-94F10
Hallam Valley Contour Drain	South Gippsland Hwy to South Gippsland Fwy	North	2.0m	0.9km	1% AEP flood event, approximate 0.2m freeboard	Very Low	Nil consequence with wetland located behind levee	95K4-96B4
Eastern Contour Drain	Frankston-Dandenong Road to Glasscocks Road	South	1.5m	2.2km	Unavailable	Significant	4 large industrial lots may flood	95C11-128E3
Eastern Contour Drain	Eumemmerring Creek to Frankston-Dandenong Road	North	2.5m	1.2km	The 1% AEP flood level exceeds the levee height at the downstream end by 0.4m	High A	377 residential properties within the Willow Lodge Mobile Home Village likely to flood	95A10-95C11
Eastern Contour Drain	Eumemmerring Creek to Frankston-Dandenong Road	South	2.5m	1.2km	The 1% AEP flood level exceeds the levee height at the downstream end by 1.1m	Very Low	Rural land may flood	95A10-95C11
Eastern Contour Drain	Glasscocks Road to Thompson Road	South	1.5m	2.0km	Unavailable	Significant	3 industrial lots and agricultural land may flood	128E3-128C7
Mordialloc Creek	Pillars Crossing to Springvale Road	South	3.0m	4.6km	1% AEP flood event, with in excess of 700mm freeboard	Significant	20 residential properties and 21 industrial properties may flood, although because of the length of the levee, only a portion likely to be at risk	94G8-93G5

Table A5 – Levees within the City of Greater Dandenong

Sewerage Infrastructure

Sewerage Infrastructure of note during a severe flood event located within the City of Greater Dandenong is contained within the following two tables. To view their locations, view mapping in **Appendix F**.

Sewer Pumping Stations

Sewerage Pumping Station	On Drain / Waterway	Bank / Side of Waterway	Operator	Location	Melway Reference
Burnham Crescent	Keysborough South D.S.	-	South East Water	60 Tyers Lane, Keysborough	94 C2
Chandler Road	Chandler Rd D.S.	-	South East Water	20-28 Bergen Street, Keysborough	89 G10
Corio Drive	Gartsides North Drain	-	South East Water	36 Corio Drive, Springvale South	88 F1
Eastern Treatment Plant	Wadsleys Drain	Both	Melbourne Water	5 separate locations within Eastern Treatment Plant, Thompson Road, Banghome	98 E3
Greens Road	Greens Lane D.S.	-	South East Water	51 Greens Road, Dandenong South	95 F3
Heart Street	Dandenong Creek	North	South East Water	Woodcock Reserve, Heart Street, Dandenong	90 C9
Morwell Pde	Mile Creek	South	South East Water	11-13 Morwell Pde, Springvale	80 B8
Nathan Road	Hallam Valley	-	South East Water	120 Nathan Road, Dandenong South	96 A3
Perry Road	Perry Rd D.S.	-	South East Water	230-234 Perry Road, Keysborough	94 F3
Perry Road South	Mordialloc Creek	North	South East Water	Jim Harkin Reserve, Perry Road, Keysborough	94 G7
Pinewood Avenue	Local Drainage	-	South East Water	62 Laemmle Street, Dandenong North	81 A12

Table A7 – Sewer Pumping Stations within or close to the City of Greater Dandenong

Sewer Emergency Relief Points

On Drain / Waterway	Bank / Side of Waterway	Location	Melway Reference
Keysborough South Drain System	West	400m north of Mordialloc Creek convergence	93 K4
Eumemmering Creek and Hallam Valley	Northwest	South Link Retarding Basin, South Gippsland Highway, Dandenong South	95 H5

Table A8 – Sewer Emergency Relief Points within or close to the City of Greater Dandenong

Flood Warning System

Within the City of Greater Dandenong, Melbourne Water has seven hydrographic monitoring sites along the four major waterways in the Municipality. These are outlined in the table below. These gauges can be monitored online through Melbourne Water at: <http://www.melbournewater.com.au/waterdata/rainfallandriverleveldata/Pages/Rainfall-and-river-level-new.aspx> or through the Bureau of Meteorology at: http://www.bom.gov.au/cgi-bin/wrap_fwo.pl?IDV60201.html. To view their locations, see mapping in **Appendix F**.

Melbourne Water Hydrographic Monitoring Station	Station No.	Location	Stream Level & Flow Gauge	Rain Gauge	Melway Reference
Dandenong Creek at Hammond Road, Dandenong	228204C	South side of the Channel, at the end of Southbourne Ave, Dandenong	✓		90C9
Dandenong Creek at Eastlink Crossing, Keysborough	228356B	East side of the channel, along the Bicycle / Walking Trail under the Eastlink Bridge. 400m south of Arkwright Drive, Dandenong South	✓	✓	94H5
Mile Creek at Parshall Flume, Springvale West	228362A	West Side of Channel at end of Oakdale Court, Springvale	✓	✓	79K6
Mile Creek downstream of Yarraman Creek, Dandenong West	228210C	East side of the creek in Greaves Reserve, next to Netball Complex, Dandenong	✓		89K6
Eumemmerring Creek at Abbots Road, Dandenong South	228203C	Southeast side of Channel, 70m south of Abbots Road bridge, Dandenong South	✓	✓	95F8
Eumemmerring Creek at Worsley Road, Bangholme	228388A	South side of the Channel at Bicycle / Walking Trail footbridge, 500m west of Worsley Road, Bangholme	✓		94F10
Eastern Contour Drain at Glasscocks Road, Dandenong South	228233A	West side of the channel, 120m north of Glasscocks Road, Dandenong South	✓		128E3

Table A9 – Hydrographic Monitoring Stations within the City of Greater Dandenong

Other gauges located in adjoining Municipalities that may assist in flood warning for the Dandenong, Mordialloc & Eumemmering Creeks are outlined below. To view their locations, see mapping in **Appendix F**.

Melbourne Water Hydrographic Monitoring Station	Station No.	Location	Stream Level & Flow Gauge	Rain Gauge	Melway Reference
Dandenong Creek at Wantirna Road, Wantirna	228357A	South side of the creek 150m east of Wantirna Road, Wantirna	✓	✓	63H3
Blind Creek at High Street Road, Wantirna South	228351A	West side of the creek, South side of High Street Rd, Wantirna South	✓		72E1
Corhanwarrabul Creek at Stud Road, Scoresby	228393A	At the Stud Road Bridge of the Southern Channel, Rowville	✓		72J9
Dandenong Creek at Police Road Retarding Basin, Rowville	228368A	North side of Embankment	✓	✓	81E6
Eumemmering Creek downstream of Hallam-Belgrave Road, Narre Warren North	228235A	North side of the Creek, 500m west of Belgrave – Hallam Road, Narre Warren North	✓	✓	108F4
Hallam Valley Contour Drain, Hampton Park	228231A	North side of the Channel, 1.3km west of Hallam Road, Hampton Park	✓	✓	96D4
Braeside	586095	Along Bicycle / Walking trail in Braeside Park, 300m from Governor Road, Braeside		✓	3 F1

Table A10 – Hydrographic Monitoring Stations within adjacent Municipalities to the City of Greater Dandenong

The Bureau does not issue formal flood warnings for the Mile, Yarraman, Eumemmering or Mordialloc Creeks due to their rapid response to rainfall. This is due either to the size of the catchments or to the urban surrounds which quickly direct stormwater into drains and waterways. This results in rapid stream rises during thunderstorms and heavy rainfall creating a short lead time for response.

There is currently one Melbourne Water flood warning gauge on Dandenong Creek that could be used to assist with public safety through the issue of flood warnings. This is at the Police Road Retarding Basin, Rowville.

Hydrographic Monitoring Station	River / Creek Flood Class Level		
	Minor	Moderate	Major
Dandenong Creek at Police Road Retarding Basin, Rowville	4.6m	5.0m	5.5m

Table A11 – Hydrographic Monitoring Stations with established Flood Class Levels for the City of Greater Dandenong

At this site on the Dandenong Creek, the Bureau of Meteorology (the Bureau) in consultation with Melbourne Water will issue flood warnings if levels reach those classified above. This warning will be placed on the Bureau's website (<http://www.bom.gov.au/vic/warnings/index.shtml>). While the City of Greater Dandenong monitors these warnings in times of high rainfall, there are no specific guidelines to advise how these situations should be responded to.

Historic Floods

Significant floods (with high flood gauge levels and likely flooding consequences to property and infrastructure) to have occurred within the City of Greater Dandenong are as follows in the table below. Where available, radar loops of the storm can be accessed by clicking on the flood event date.

Event	Dandenong Creek at Rowville (228368A)		Dandenong Creek at Dandenong (228204C)	Mile Creek at Springvale West (228362A)		Hallam Valley Contour Drain at Hampton Park (228231A)		Eastern Contour Drain at Lyndhurst (228233B)	
	Rainfall at Gauge	Creek Height	Creek Height	Rainfall at Gauge	Creek Height	Rainfall at Gauge	Creek Height	Rainfall at Gauge	Creek Height
Normal Water Level	-	0.5m	0.6m	-	0.05m	-	0.60m	-	1.20m
Minor Flood Class		4.6m							
Moderate Flood Class		5.0m							
Major Flood Class		5.5m							
30 th June 1977	-	-	-	24mm / 40 hrs	0.67m	-	3.09m	-	-
26 th July 1977	-	-	-	89mm / 26 hrs	0.65m	-	3.25m	-	-
7 th August 1978	43mm / 36 hrs	4.74m	-	32mm / 36 hrs	-	-	3.60m	-	2.13m
19 th November 1978	61mm / 32 hrs	4.88m	-	50mm / 27 hrs	1.13m	-	3.36m	-	1.86m
6 th October 1979	-	4.85m	-	35mm / 18 hrs	1.63m	-	2.70m	-	1.96m
29 th June 1980	51mm / 56 hrs	4.77m	-	27mm / 43 hrs	0.74m	-	1.89m	-	1.58m
25 th May 1981	47mm / 23 hrs	4.77m	-	-	1.33m	-	1.97m	-	1.50m
15 th October 1983	70mm / 33 hrs	4.86m	-	62mm / 32 hrs	1.11m	-	3.34m	-	2.23m
18 th September 1984	91mm / 99 hrs	5.69m	4.64m	-	1.61m	-	3.58m	-	2.12m
26 th July 1987	34mm / 19 hrs	5.14m	-	27mm / 20 hrs	-	-	3.60m	-	2.02m
23 rd August 1989	10mm / 9 hrs	4.62m	-	-	0.72m	-	1.93m	-	1.84m
18 th July 1990	44mm / 55 hrs	4.95m	-	37mm / 6 hrs	1.35m	-	2.79m	-	1.98m
11 th October 1990	45mm / 29 hrs	4.91m	-	55mm / 28 hrs	1.02m	-	3.32m	-	2.27m
5 th July 1991	38mm / 25 hrs	5.04m	-	27mm / 17 hrs	1.14m	-	1.85m	-	1.80m
18 th September 1991	36mm / 36 hrs	4.63m	-	20mm / 20 hrs	0.55m	-	2.51m	-	2.05m
31 st December 1991	46mm / 19 hrs	4.86m	-	26mm / 18 hrs	0.78m	-	1.27m	-	1.55m
15 th September 1993	32mm / 25 hrs	4.85m	-	-	-	-	2.56m	-	2.15m
27 th December 1993	63mm / 46 hrs	4.97m	-	-	2.09m	-	2.32m	-	1.81m

Event	Dandenong Creek at Rowville (228368A)		Dandenong Creek at Dandenong (228204C)	Mile Creek at Springvale West (228362A)		Hallam Valley Contour Drain at Hampton Park (228231A)		Eastern Contour Drain at Lyndhurst (228233B)	
	Rainfall at Gauge	Creek Height	Creek Height	Rainfall at Gauge	Creek Height	Rainfall at Gauge	Creek Height	Rainfall at Gauge	Creek Height
Normal Water Level	-	0.5m	0.6m	-	0.05m	-	0.60m	-	1.20m
Minor Flood Class		4.6m							
Moderate Flood Class		5.0m							
Major Flood Class		5.5m							
23 rd June 1996	-	4.75m	-	47mm / 22 hrs	0.73m	44mm / 22 hrs	2.23m	-	1.66m
29 th July 1996	59mm / 35 hrs	5.12m	-	72mm / 35 hrs	1.00m	63mm / 32 hrs	2.97m	-	2.20m
26 th December 1999	52mm / 25 hrs	1.00m	-	94mm / 27 hrs	2.23m	32mm / 22 hrs	0.91m	-	1.19m
14 th April 2003	66mm / 60 hrs	2.11m	-	63mm / 59 hrs	2.04m	71mm / 60 hrs	2.25m	-	1.19m
3 rd December 2003	30mm / 3 hrs	4.64m	-	36mm / 3 hrs	2.22m	5mm / 2 hrs	0.59m	-	1.24m
13 th November 2004	38mm / 10 hrs	4.91m	-	43mm / 6 hrs	1.53m	38mm / 6 hrs	2.75m	-	-
3 rd February 2005	130mm / 37 hrs	5.56m	-	127mm / 34 hrs	1.69m	107mm / 26 hrs	3.06m	-	2.01m
22 nd December 2007	75mm / 34 hrs	4.76m	-	64mm / 32 hrs	2.18m	81mm / 27 hrs	2.83m	-	2.04m
30th October 2010	68mm / 39 hrs	4.80m	2.49m	67mm / 20 hrs	1.89m	55mm / 20 hrs	2.67m	59mm / 20 hrs	2.15m
20th December 2010	48mm / 46 hrs	4.83m	3.05m	83mm / 17 hrs	2.00m	7mm / 15 hrs	0.85m	10mm / 16 hrs	1.67m
5th February 2011	146mm / 15 hrs	5.45m	4.54m	149mm / 28 hrs	2.62m	160mm / 28 hrs	3.28m	168mm / 25 hrs	2.66m
26th November 2011	52mm / 22 hrs	4.66m	2.79m	70mm / 22 hrs	1.86m	47mm / 22 hrs	2.57m	57mm / 22 hrs	2.35m
21st June 2012	65mm / 31 hrs	4.80m	3.14m	57mm / 26 hrs	0.99m	64mm / 33 hrs	3.03m	66mm / 31 hrs	2.86m
1st June 2013	53mm / 15 hrs	4.87m	3.18m	49mm / 16 hrs	2.46m	46mm / 16 hrs	2.23m	-	-
21st March 2017	25mm / 4 hrs	0.95m	2.28m	22mm / 2 hrs	2.01m	26mm / 4 hrs	2.16m	-	1.08m
3rd December 2017	76mm / 47 hrs	4.76m	3.01m	79mm / 44 hrs	1.21m	50mm / 41 hrs	2.16m	44mm / 41 hrs	0.95m
8th December 2017	65mm / 11 hrs	4.61m	2.61m	47mm / 11 hrs	1.49m	39mm / 14 hrs	2.31m	37mm / 13 hrs	1.13m

Table A12 – Selection of Historical Flood Events along the Dandenong, Mile & Eumemmerring Creeks

Dam Failure

No dams, either in or upstream of the City of Greater Dandenong are expected to affect the Municipality from flooding. See Dam Failure in Section 3 of this plan for more information. Service Reservoirs located within the Municipality are listed below.

Melbourne Water Service Reservoir	Location	Owner	Material	Reservoir Capacity	Melway Reference
Dandenong Reservoir No.1	Hennessy Way, Dandenong North	Melbourne Water	Steel Tank	75 ML	81A8
Dandenong Reservoir No.2	Hennessy Way, Dandenong North	Melbourne Water	Steel Tank	75 ML	81B9

Table A14 – Melbourne Water Service Reservoirs in the City of Greater Dandenong

APPENDIX B - TYPICAL FLOOD PEAK TRAVEL TIMES

In using the information contained in this Appendix, consideration needs to be given to the time of travel of the flood peak. A flood on a 'dry' waterway will generally travel more slowly than a flood on a 'wet' waterway (eg. The first flood after a dry period will travel more slowly than the second flood in a series of floods). Hence, recent flood history, soil moisture and forecast weather conditions all need to be considered when using the following information to direct flood response activities.

Note that flooding will start some time ahead of the time indicated by the following travel times – these are the time between the flood peaks at respective sites.

Where negative values are shown in the table below this indicates that a flood peak may be expected at the gauge downstream before a separate flood peak is experienced at the upstream gauge. This phenomenon may be due to the location of the thunderstorm passing through the catchment between the two gauges, or because of the urban environment found downstream causing floodwaters to enter the waterway quicker than those in a more rural setting upstream. Lastly this may be because of the existence of a retarding basin between the two gauges.

Typical Travel Times

Location From (gauge)	Location To (gauge)	Typical Travel Time	Flood Class	Comments
DANDENONG CREEK				
Wantirna	Rowville	Between 5 to 25 hours	Minor Flood at Rowville	Inflows from Blind, Corhanwarrabul and Mile Creeks may impact on travel time
Rowville	Dandenong	Between 2 to 9 hours		
Dandenong	Keysborough	Between 1min to 3 hours		
Wantirna	Rowville	Between 3 to 7 hours	Moderate Flood at Rowville	Inflows from Blind & Corhanwarrabul Creeks may impact on travel time
Rowville	Dandenong	Between 1 to 3 hours		
Wantirna	Rowville	Between 1min to 1 hour	Major Flood at Rowville	Inflows from Blind & Corhanwarrabul Creeks may impact on travel time
Rowville	Dandenong	Between 2 to 4 hours		
MILE CREEK				
Springvale West	Dandenong West	Around 1 hour	N/A	Inflows from Yarraman Creek likely to impact on travel times
HALLAM VALLEY / EUMEMMERRING CREEK				
Hampton Park	Dandenong South	Between 1min to 3 hours	N/A	Inflows from Upper Eumemmerring Creek may impact on travel time
	Bangholme	Between 1min to 6 hours	N/A	Inflows from Dandenong Creek may impact on travel times

Table B1 – Typical Flood Travel Times between gauges on the Dandenong, Mile & Eumemmerring Creeks

Historical Travel Times

Flood Event	Location From (gauge)	Location To (gauge)	Flood Peak Travel Time	Flood Class at
DANDENONG CREEK				Rowville
7 th August 1978	Wantirna	Rowville	13 hours	Minor
19 th November 1978	Wantirna	Rowville	9 hours	Minor
6 th October 1979	Wantirna	Rowville	9 hours	Minor
29 th June 1980	Wantirna	Rowville	9 hours	Minor
25 th May 1981	Wantirna	Rowville	10 hours	Minor
15 th October 1983	Wantirna	Rowville	25 hours	Minor
18 th September 1984	Wantirna	Rowville	Less than 1 hour	Major
	Rowville	Dandenong	2 hours	
29 th July 1987	Wantirna	Rowville	7 hours	Moderate
	Rowville	Dandenong	3 hours	
23 rd August 1989	Rowville	Dandenong	4 hours	Minor
18 th July 1990	Wantirna	Rowville	Rowville peaked 15 hours before Wantirna	Minor
	Rowville	Dandenong	16 hours	
11 th October 1990	Wantirna	Rowville	16 hours	Minor
	Rowville	Dandenong	4 hours	
5 th July 1991	Wantirna	Rowville	7 hours	Moderate
	Rowville	Dandenong	3 hours	
18 th September 1991	Wantirna	Rowville	17 hours	Minor
	Rowville	Dandenong	3 hours	
31 st December 1991	Wantirna	Rowville	19 hours	Minor
	Rowville	Dandenong	5 hours	
15 th September 1993	Wantirna	Rowville	11 hours	Minor
	Rowville	Dandenong	4 hours	
27 th December 1993	Wantirna	Rowville	5 hours	Minor
	Rowville	Dandenong	7 hours	
23 rd June 1996	Wantirna	Rowville	6 hours	Minor
	Rowville	Dandenong	4 hours	
29 th July 1996	Wantirna	Rowville	6 hours	Moderate
	Rowville	Dandenong	2 hours	
3 rd December 2003	Wantirna	Rowville	14 hours	Minor
	Rowville	Dandenong	7 hours	
13 th November 2004	Wantirna	Rowville	8 hours	Minor
3 rd February 2005	Wantirna	Rowville	1 hour	Major
	Rowville	Dandenong	4 hours	
22 nd December 2007	Wantirna	Rowville	11 hours	Minor
	Rowville	Dandenong	7 hours	
31 st October 2010	Wantirna	Rowville	16 hours	Minor
	Rowville	Dandenong	2 hours	
	Dandenong	Keysborough	1 hour	
20 th December 2010	Wantirna	Rowville	8 hours	Minor
	Rowville	Dandenong	5 hours	
	Dandenong	Keysborough	1 hour	
5 th February 2011	Wantirna	Rowville	3 hours	Moderate
	Rowville	Dandenong	1 hour	
	Dandenong	Keysborough	3 hours	

Flood Event	Location From (gauge)	Location To (gauge)	Flood Peak Travel Time	Flood Class at
26 th November 2011	Wantirna	Rowville	18 hours	Minor
	Rowville	Dandenong	6 hours	
	Dandenong	Keysborough	1 hour	
22 nd June 2012	Wantirna	Rowville	15 hours	Minor
	Rowville	Dandenong	2 hours	
	Dandenong	Keysborough	Less than 1 hour	
1 st June 2013	Wantirna	Rowville	11 hours	Minor
	Rowville	Dandenong	6 hours	
	Dandenong	Keysborough	1 hour	
3 rd December 2017	Wantirna	Rowville	11 hours	Minor
	Rowville	Dandenong	6 hours	
	Dandenong	Keysborough	1 hour	
8 th December 2017	Wantirna	Rowville	20 hours	Minor
	Rowville	Dandenong	4 hours	
	Dandenong	Keysborough	1 hour	
MILE CREEK				N/A
26 th December 1999	Springvale West	Dandenong West	1 hour	N/A
14 th April 2003	Springvale West	Dandenong West	Less than 1 hour	N/A
3 rd December 2003	Springvale West	Dandenong West	Less than 1 hour	N/A
3 rd February 2005	Springvale West	Dandenong West	Less than 1 hour	N/A
22 nd December 2007	Springvale West	Dandenong West	1 hour	N/A
31 st October 2010	Springvale West	Dandenong West	1 hour	N/A
20 th December 2010	Springvale West	Dandenong West	2 hours	N/A
5 th February 2011	Springvale West	Dandenong West	Less than 1 hour	N/A
26 th November 2011	Springvale West	Dandenong West	Less than 1 hour	N/A
22 nd June 2012	Springvale West	Dandenong West	1 hour	N/A
1 st June 2013	Springvale West	Dandenong West	1 hour	N/A
21 st March 2017	Springvale West	Dandenong West	Less than 1 hour	N/A
HALLAM VALLEY / EUMEMMERRING CREEK				N/A
26 th July 1977	Hampton Park	Dandenong South	1 hour	N/A
7 th August 1978	Hampton Park	Dandenong South	Less than 1 hour	N/A
19 th November 1978	Hampton Park	Dandenong South	Less than 1 hour	N/A
6 th October 1979	Hampton Park	Dandenong South	Less than 1 hour	N/A
15 th October 1983	Hampton Park	Dandenong South	Less than 1 hour	N/A
18 th September 1984	Hampton Park	Dandenong South	Less than 1 hour	N/A
18 th July 1990	Hampton Park	Dandenong South	Less than 1 hour	N/A
11 th October 1990	Hampton Park	Dandenong South	1 hour	N/A
15 th September 1993	Hampton Park	Dandenong South	Less than 1 hour	N/A
29 th July 1996	Hampton Park	Dandenong South	2 hours	N/A
13 th November 2004	Hampton Park	Dandenong South	2 hours	N/A
3 rd February 2005	Hampton Park	Dandenong South	3 hours	N/A
31 st October 2010	Hampton Park	Dandenong South	1 hour	N/A
		Bangholme	6 hours	N/A
20 th December 2010	Hampton Park	Dandenong South	3 hours	N/A
		Bangholme	Less than 1 hour	N/A
5 th February 2011	Hampton Park	Dandenong South	1 hour	N/A
		Bangholme	3 hours	N/A
26 th November 2011	Hampton Park	Dandenong South	3 hours	N/A
		Bangholme	5 hours	N/A

Flood Event	Location From (gauge)	Location To (gauge)	Flood Peak Travel Time	Flood Class at
22 nd June 2012	Hampton Park	Dandenong South	2 hours	N/A
		Bangholme	5 hours	N/A
1 st June 2013	Hampton Park	Dandenong South	Less than 1 hour	N/A
		Bangholme	1 hour	N/A

Table B2 – Historical Flood Travel Times between gauges on the Dandenong, Mile & Eumemmerring Creeks

APPENDIX C1 – DANDENONG CREEK FLOOD EMERGENCY PLAN

Overview of Flooding Consequences

This Summary table is generated from Victorian Government data. The State of Victoria does not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for error, loss or damage which may arise from reliance upon it. All persons access this information should make appropriate enquiries to assess the currency of the data.

Summary of Consequences in a 1% AEP (100yr ARI) flood along Dandenong Creek

Property					
Properties	7				
Residential	0				
Commercial	0				
Industrial	0				
Public Land	1	Dandenong Basketball Stadium & State Volleyball Centre			
Rural	6	Properties on Bangholme Road, Bangholme			
Community Infrastructure					
Health Facilities	0		Child Care / Kindergartens	0	
Care Facilities	0		Community Venues	0	
Retirement Villages	0		Places of Worship	0	
Schools / Colleges	0		Prisons	0	
Essential Infrastructure					
Major Roads	1	Heatherton Road	Police Stations	0	
Major Rail	0		Government Buildings	0	
Bus Routes	1	695	Sewerage Facilities	1	Pumping Station
Power Facility	0		Levees	10	
Comms Services	0		Drainage Facilities	1	Police Rd Retarding Basin (City of Knox)
Emergency Services	0		Airports / Airfields	0	
Tourism / Recreation					
Sports Facilities	1	D'nong Basketball Stadium & State Volleyball Centre	Caravan Parks	0	
Recreation Facilities	2	Dandenong Creek Trail; Tirhatuan Park	Camping Grounds	0	
Government Boundaries					
Local Gov't Areas	1	Greater Dandenong	CMA	1	Port Phillip & Westernport
Adjacent LGAs	4	Monash, Knox, Casey, & Kingston	CFA District	1	District 08
SES Unit Area	1	Greater Dandenong	MFB District	0	

Table C1.1 – Consequence Summary of 1% AEP flood along Dandenong Creek

Dandenong Creek in the City of Greater Dandenong and the adjoining suburbs of Dandenong North, Dandenong, Keysborough, Dandenong South and Bangholme are located between 26-30km south-east of Melbourne in a mixed residential, business & industrial area. Dandenong Creek is the

prominent watercourse in the area, flowing from the north through the municipalities of Yarra Ranges, Maroondah, Knox and Monash. Dandenong Creek also has a number of tributaries that may contribute to increased flows during a rainfall event including Blind Creek and Corhanwarrabul Creek in the City of Knox, and Mile Creek, Yarraman Creek & Eumemmerring Creek in the City of Greater Dandenong.

High Intensity, short duration rainfall events can cause flash flooding in and around these tributaries and the number of stormwater drains that connect to Dandenong Creek, while prolonged rainfall may see Dandenong Creek flood. Large flood plains exist in Dandenong North alongside Dandenong Creek before the creek is concentrated into a channel that runs through Dandenong adjacent to the Central Business District. This channel is designed to contain a 1% AEP flood level. The creek then runs south through Keysborough, Dandenong South & Bangholme where levees have been built on either bank. Dandenong Creek then becomes the Carrum Outfall Drain in Bangholme and then the Patterson River before discharging into Port Phillip Bay. See mapping in **Appendix F** for more insight into flooding in the area.

Warning Times

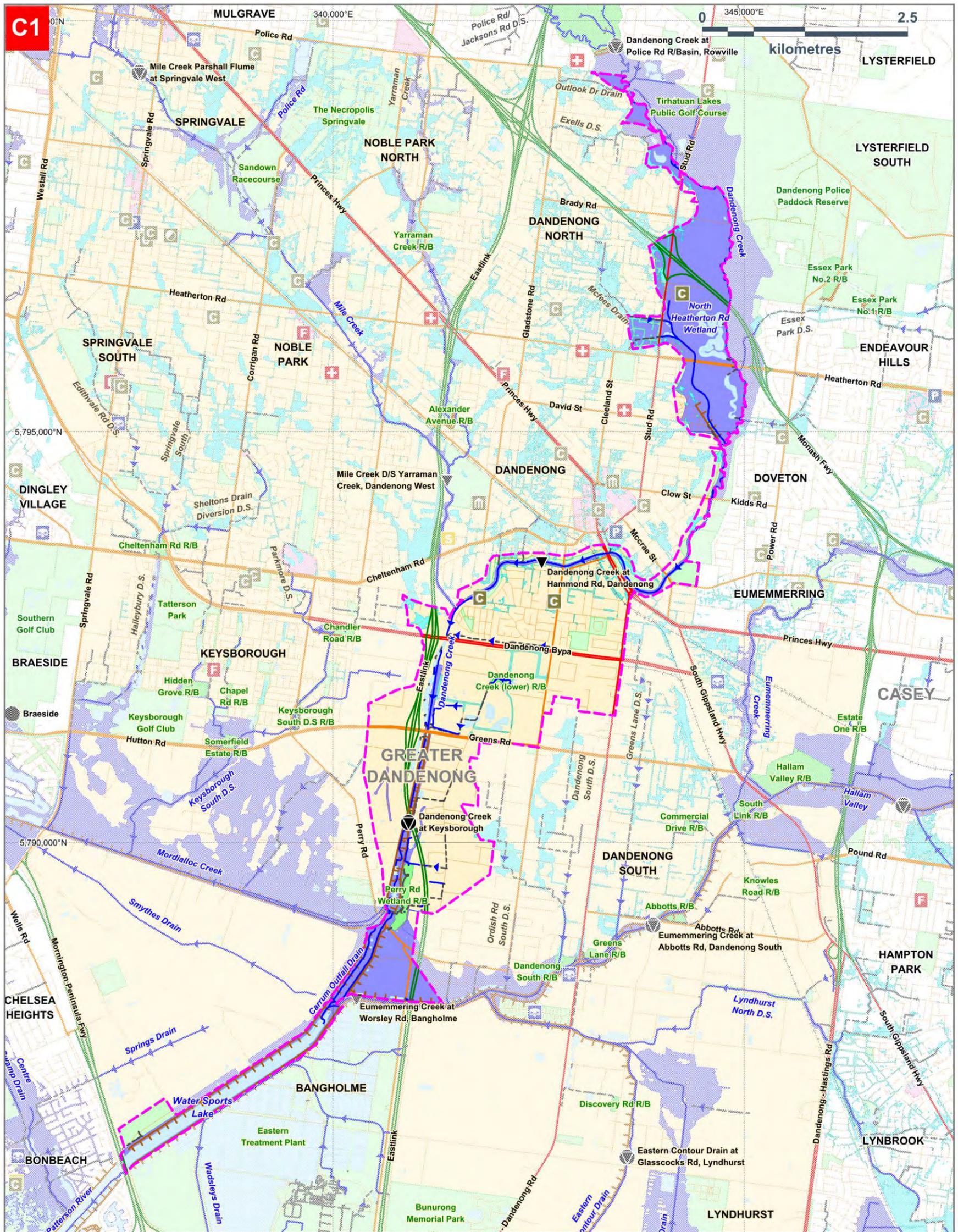
Warnings are available for flooding expected along Dandenong Creek at Rowville. For other hydrographic/telemetry (river gauges) within the Municipality, Melbourne Water does not provide any flood warning service at this point.

Melbourne Water Hydrographic Monitoring Station	Station No.	Location	Stream Level & Flow Gauge	Rain Gauge	Melway Reference
Dandenong Creek at Wantirna Road, Wantirna	228357A	South side of the creek 150m east of Wantirna Road, Wantirna	✓	✓	63 H3
Blind Creek at High Street Road, Wantirna South	228351B	West side of the creek, South side of High Street Rd, Wantirna South	✓		72 E1
Corhanwarrabul Creek at Stud Road, Scoresby	228393A	At the Stud Road Bridge of the Southern Channel, Rowville	✓		72 J9
Dandenong Creek at Police Road Retarding Basin, Rowville	228368A	North side of Embankment	✓	✓	81 E6
Dandenong Creek at Hammond Road, Dandenong	228204C	South side of the Channel, at the end of Southbourne Ave, Dandenong	✓		90 C9
Dandenong Creek at Eastlink Crossing, Keysborough	228356B	East side of the channel, along the Bicycle / Walking Trail under the Eastlink Bridge. 400m south of Arkwright Drive, Dandenong South	✓	✓	94 H5

Table C1.2 – Hydrographic Monitoring Stations within the Dandenong Creek catchment

These Gauges may provide some warning of expected flooding. See the Melbourne Water website for more information on these gauges: <http://www.melbournewater.com.au/waterdata/rainfallandrivervelleveldata/Pages/Rainfall-and-river-level-new.aspx>. It is advised that residents monitor the Bureau of Meteorology's website <http://www.bom.gov.au/> and the VicEmergency website <https://emergency.vic.gov.au/> for any thunderstorm, flood or severe weather warnings present for their area.

Areas of Flood Risk



Map Produced by VICSES March 2019.

CITY OF GREATER DANDENONG

Version 3: March 2019

C1. Areas of flood risk along Dandenong Creek

- | | | |
|---------------------------------|-------------------------|--------------------|
| Park / Reserve | Stormwater Drain | Stream Level Gauge |
| Waterbody | Creek / Waterway | Rain Gauge |
| Melbourne Water Retarding Basin | Embankment | Community Centre |
| 1% AEP Flash Flood Extent | Levee | Caravan Park |
| 1% AEP Riverine Flood Extent | State Emergency Service | Hospital |
| Commercial Precinct | Municipal Depot | Fire Station |
| Police Station | Municipal Offices | |



SES VICTORIA Melbourne Water

This map publication is presented by the Victoria State Emergency Service for the purpose of disseminating emergency management information. The contents of the information have not been independently verified by the Victoria State Emergency Service. No liability is accepted for any damage, loss or injury caused by errors or omissions in this information or for any action taken by any person in reliance upon it.

Figure C1 – Areas of flood risk along Dandenong Creek in the City of Greater Dandenong

Properties at Flood Risk

Properties listed in the table below are at risk from flooding along Dandenong Creek in the City of Greater Dandenong. As more intelligence becomes available, this list may change. This table has been populated based on modelling work as part of the Dandenong Creek (Melbourne Water, December 2001) flood mapping and risk assessment program.

This Property Flood Risk Table is presented by the Victoria State Emergency Service for the purpose of disseminating emergency management information. The contents of the information have not been independently verified by the Victoria State Emergency Service. No liability is accepted for any damage, loss or injury caused by errors or omissions in this information or for any action taken by any person in reliance upon it.

Properties at risk from Flooding along Dandenong Creek during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use
Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
207	Bangholme Road	Bangholme	Dandenong Creek	Riverine
208	Bangholme Road	Bangholme	Dandenong Creek	Riverine
213	Bangholme Road	Bangholme	Dandenong Creek	Riverine
221	Bangholme Road	Bangholme	Dandenong Creek	Riverine
226	Bangholme Road	Bangholme	Dandenong Creek	Riverine
231	Bangholme Road	Bangholme	Dandenong Creek	Riverine
270	Stud Road	Dandenong	Dandenong Creek	Riverine
Total				
7				

Table C1.3 – Properties at risk of flooding along Dandenong Creek in the City of Greater Dandenong

Isolation

No major isolation risks exist for areas along Dandenong Creek in Dandenong North, Dandenong, Keysborough, Dandenong South & Bangholme during a 1% AEP (100yr ARI) event. Some localised short-duration isolation may occur due to flash flooding.

Essential Infrastructure

During an event, see the Public Transport Victoria's Website for details on delays or alterations to services. <http://ptv.vic.gov.au/live-travel-updates/>. A map of Public Transport routes within the City of Greater Dandenong is available via the website at: https://static.ptv.vic.gov.au/siteassets/Maps/Localities/PDFs/18_Greater_Dandenong_LAM.pdf

Apart from the roads outlined below, all other essential infrastructure and services areas around Dandenong Creek in Dandenong North, Dandenong, Keysborough, Dandenong South & Bangholme are expected to remain unaffected by flooding during a 1% AEP (100yr ARI) event.

Road Closures

The following roads are subject to closure during flooding along Dandenong Creek in the City of Greater Dandenong. Check the VicRoads website for more details: <https://traffic.vicroads.vic.gov.au/>. Note that the **Eastlink** and **Monash Freeways** are expected to remain relatively dry during a 1% AEP flood event.

VicRoads Roads likely flooded in a 1% AEP (100yr ARI) event

- Heatherton Road, Dandenong North between Stud Road and the Monash Freeway

Table C1.4 – VicRoads Possible Road Closures during a flooding event

Greater Dandenong City Council Roads likely flooded in a 1% AEP (100yr ARI) event	
BANGHOLME	DANDENONG
• Bangholme Road	• Jesson Crescent
• Pillars Road	DANDENONG NORTH
• Worsley Road	• Brady Road

Table C1.5 – Greater Dandenong City Council Possible Road Closures during a flooding event

Flood Mitigation

Retarding Basins

Melbourne Water Retarding Basin	On Drain/ Waterway	Area	Storage Capacity	Spillway Crest Level	Full Supply Level	Embankment Crest Level	ANCOLD Hazard Rating	Houses In Flow Path (dam breach)	Melway Reference
Police Road (City of Knox)	Dandenong Creek	118.1 ha	660 ML	39.6m AHD	42.0m AHD	4.9m (42.7m AHD)	Very Low	0	81 E5

Table C1.6 – Melbourne Water Retarding Basins within along Dandenong Creek in the City of Greater Dandenong

Levees

Melbourne Water Levee	Reach	Side	Levee Height	Levee Length	Expected Level of Protection	ANCOLD Hazard Rating	Houses at risk behind Levee	Melway Reference
Carrum Outfall	Eumemmerring Creek to National Sports Water Centre	East	3.0m	1.0km	Unavailable	Very Low	Eastern Treatment Plant may flood	97J2-94F10
Carrum Outfall	Eumemmerring Creek to National Sports Water Centre	West	3.0m	1.0km	Unavailable	Significant	16 residential properties and 6 industrial lots may flood	97J2-94F10
Carrum Outfall	Pillars Crossing to Eumemmerring Creek	West	3.0m	4.2km	Unavailable	Significant	8 residential properties and 2 industrial lots may flood	94F10-94G8
Carrum Outfall	Pillars Crossing to Eumemmerring Creek	East	4.0m	4.2km	Unavailable	Low	4 residential properties and 2 industrial lots may flood	94F10-94G8
Dandenong Creek	Bend Road to Greens Road	East	1.9m	0.9km	1% AEP flood event, freeboard Unavailable	Very Low	Unknown with recent Industrial development in area	89J12-94J2
Dandenong Creek	Bend Road to Greens Road	West	1.9m	0.9km	1% AEP flood event, freeboard Unavailable	Very Low	Nil consequence with wetland located behind levee	89J12-94J2
Dandenong Creek	Greens Road to Pillars Crossing	West	2.0m	2.3km	1% AEP flood event, freeboard Unavailable	Low	3 residential properties and 2 industrial lots may flood	94J2-94G7
Dandenong Creek	Greens Road to Pillars Crossing	East	2.0m	2.3km	1% AEP flood event, freeboard Unavailable	Low	1 Industrial lot may flood	94J2-94G7
Dandenong Creek	Heatherton Road (Ross St to David St)	North	3.0m	0.2km	1% AEP flood event, with approx. 1m freeboard	Very Low	Nil consequence expected	90 H5
Dandenong Creek	Heatherton Road (David St to Jesson St)	North	3.0m	0.3km	1% AEP flood event, with approx. 1m freeboard	Very Low	Nil consequence expected	90 H5

Table C1.7 – Melbourne Water Levees along Dandenong Creek in the City of Greater Dandenong

Sewerage Infrastructure

Sewerage Infrastructure of note during a severe flood event located along Dandenong Creek is contained within the following table.

Sewer Pumping Stations

Sewerage Pumping Station	On Drain / Waterway	Bank / Side of Waterway	Operator	Location	Melway Reference
Heart Street	Dandenong Creek	North	South East Water	Woodcock Reserve, Heart Street, Dandenong	90 C9

Table C1.8 – Sewer Pumping Stations along Dandenong Creek in the City of Greater Dandenong

Command, Control and Coordination

VICSES will assume overall control of the response to flood incidents. Other agencies will be requested to support operations as detailed in this Plan. Control and coordination of a flood incident shall be carried out at the lowest effective level and in accordance with the State Emergency Response Plan (EMMV Part 3). During significant events, VICSES will conduct incident management using multi-agency resources.

Flood Impacts & Operational Considerations (Intelligence Cards)

The tables on the following pages provide a breakdown of the possible consequences of flooding along Dandenong Creek at various creek heights within the City of Greater Dandenong. These tables are to be used only as a guide as no two floods at a location will have identical impacts.

Intelligence Cards have been included for the following locations:

- Dandenong Creek, Rowville
- Dandenong Creek, Dandenong
- Dandenong Creek, Keysborough

FLOOD INTELLIGENCE CARD – ROWVILLE GAUGE, DANDENONG CREEK

Version 3 – April 2019



Note: flood intelligence records are approximations. This is because no two floods at a location, even if they peak at the same height, will have identical impacts. Flood intelligence cards detail the relationship between flood magnitude and flood consequences. More details about flood intelligence and its use can be found in the Australian Emergency Management Manuals flood series.

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LOCATION	Police Road Retarding Basin, Rowville
MELWAY REFERENCE:	81 E6
STREAM:	Dandenong Creek
GAUGE NUMBER:	228368A
GAUGE ZERO:	35.31m AHD
GAUGE TYPE	Stream Level & Rain

MINOR:	4.6m
MODERATE:	5.0m
MAJOR	5.5m
SPILLWAY HEIGHT:	4.28m
TELEMETRIC/MANUAL	Telemetric
HIGHEST RECORDED FLOOD:	5.69m (18 th September 1984)

Creek Height	Flood Class or Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
4.28m		<ul style="list-style-type: none"> Spillway Level of Police Road Retarding Basin reached 	
4.34m		<ul style="list-style-type: none"> Low lying areas along Dandenong Creek either side of Heatherton Road are flooded (Melway 90H3-J4) 	
4.6m	MINOR FLOOD LEVEL	Community Infrastructure Flooded <ul style="list-style-type: none"> Dandenong Creek Trail flooded in parts 	
4.768m	3 rd December 2017 Flood Level Peak	Event Summary <ul style="list-style-type: none"> Heatherton Road, Dandenong North closed in both directions due to flooding 	
5.0m	MODERATE FLOOD LEVEL		
5.25m		<ul style="list-style-type: none"> Height of Levee on southern side of Heatherton Road, Dandenong 	
5.4m		Essential Infrastructure Likely Impacted <ul style="list-style-type: none"> Bus Route 695 along Heatherton Road, Dandenong North Water Over Road <ul style="list-style-type: none"> Heatherton Road, Dandenong North between Stud Road and Monash Freeway 	

Creek Height	Flood Class or Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
5.5m	MAJOR FLOOD LEVEL 1% AEP (100yr ARI) Flood Level	<ul style="list-style-type: none"> Note: It is not known at what level property and infrastructure contained below starts being flooded <p>Properties at Flood Risk</p> <p>1 Property in Total</p> <ul style="list-style-type: none"> 270 Stud Road, Dandenong <p>Community Infrastructure Flooded</p> <ul style="list-style-type: none"> Tirhatuan Park, Dandenong North Dandenong Basketball Stadium & State Volleyball Centre on Stud Road, Dandenong North <p>Water Over Road</p> <ul style="list-style-type: none"> Brady Road, Dandenong North at Dandenong Creek bridge Jesson Crescent, Dandenong adjacent to Creek 	
5.56m	3 rd February 2005 Flood Level Peak		
5.69m	18 th September 1984 Flood Level Peak		
6.69m		<ul style="list-style-type: none"> Full Supply Level of Police Road Retarding Basin reached 	
7.39m		<ul style="list-style-type: none"> Embankment Level of Police Road Retarding Basin reached 	

Table C1.9 – Breakdown of likely consequences at various Rowville gauge level heights along Dandenong Creek with operational considerations

FLOOD INTELLIGENCE CARD – DANDENONG GAUGE, DANDENONG CREEK

Version 3 – April 2019



Note: flood intelligence records are approximations. This is because no two floods at a location, even if they peak at the same height, will have identical impacts. Flood intelligence cards detail the relationship between flood magnitude and flood consequences. More details about flood intelligence and its use can be found in the Australian Emergency Management Manuals flood series.

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LOCATION	South side of the Channel, at the end of Southbourne Ave, Dandenong
MELWAY REFERENCE:	90 C9
STREAM:	Dandenong Creek
GAUGE NUMBER:	228204C
GAUGE ZERO:	10.834m AHD
GAUGE TYPE	Stream Level

MINOR:	Not Established
MODERATE:	Not Established
MAJOR	Not Established
CHANNEL HEIGHT:	6.6m
TELEMETRIC/MANUAL	Telemetric
HIGHEST RECORDED FLOOD:	4.64m (18th September 1984)

Creek Height	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
4.64m	18 th September 1984 Flood Level Peak		
5.87m	1% AEP (100yr ARI) Flood Level	<ul style="list-style-type: none"> Nil. Water expected to be contained within channel through Dandenong 	
6.6m	Bank Full Level Flood Level	<ul style="list-style-type: none"> Dandenong Creek at capacity through Dandenong 	

Table C1.10 – Breakdown of likely consequences at various Dandenong gauge level heights along Dandenong Creek with operational considerations

FLOOD INTELLIGENCE CARD – KEYSBOROUGH GAUGE, DANDENONG CREEK

Version 3 – April 2019



Note: flood intelligence records are approximations. This is because no two floods at a location, even if they peak at the same height, will have identical impacts. Flood intelligence cards detail the relationship between flood magnitude and flood consequences. More details about flood intelligence and its use can be found in the Australian Emergency Management Manuals flood series.

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LOCATION	East side of the channel, along the Bicycle / Walking Trail under the Eastlink Bridge. 400m south of Arkwright Drive, Dandenong South
MELWAY REFERENCE:	94 H5
STREAM:	Dandenong Creek
GAUGE NUMBER:	228356B
GAUGE ZERO:	6.15m AHD
GAUGE TYPE	Stream Level & Rain

MINOR:	Not Established
MODERATE:	Not Established
MAJOR	Not Established
LEVEE HEIGHT:	5.2m
TELEMETRIC/MANUAL	Telemetric
HIGHEST RECORDED FLOOD:	3.495m (5th February 2011)

Creek Height	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
4.5m	1% AEP (100yr ARI) Flood Level	Properties at Flood Risk 6 Properties in Total <ul style="list-style-type: none"> • 207, 208, 213, 221, 226 & 231 Bangholme Road, Bangholme Water Over Road <ul style="list-style-type: none"> • Pillars Road, Bangholme near Perry Road • Bangholme Road, Bangholme near Perry Road • Worsley Road, Bangholme near Perry Road 	
5.08m		<ul style="list-style-type: none"> • Bank Full at Gauging Location 	
5.2m		<ul style="list-style-type: none"> • Approximate height of Levee 	

Table C1.11 – Breakdown of likely consequences at various Keysborough gauge level heights along Dandenong Creek with operational considerations

APPENDIX C2 – EUMEMMERRING CREEK & EASTERN CONTOUR DRAIN FLOOD EMERGENCY PLAN

Overview of Flooding Consequences

These Summary tables are generated from Victorian Government data. The State of Victoria does not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for error, loss or damage which may arise from reliance upon it. All persons access this information should make appropriate enquiries to assess the currency of the data.

Summary of Consequences in a 1% AEP (100yr ARI) flood along Eumemmerring Creek & Hallam Valley Drain

Property					
Properties	164				
Residential	0				
Commercial	129				
Industrial	29				
Public Land	0				
Rural	6				
Community Infrastructure					
Health Facilities	0		Child Care / Kindergartens	0	
Care Facilities	0		Community Venues	0	
Retirement Villages	0		Places of Worship	0	
Schools / Colleges	0		Prisons	0	
Essential Infrastructure					
Major Roads	1	South Gippsland Highway	Police Stations	0	
Major Rail	0		Government Buildings	0	
Bus Routes	2	857, 892	Sewerage Facilities	2	1 Pumping Station and 1 Emergency Relief Point
Power Facility	0		Levees	16	
Comms Services	0		Drainage Facilities	5	Retarding Basins
Emergency Services	0		Airports / Airfields	0	
Tourism / Recreation					
Sports Facilities	0		Caravan Parks	0	
Recreation Facilities	0		Camping Grounds	0	
Government Boundaries					
Local Gov't Areas	1	Greater Dandenong	CMA	1	Port Phillip & Westport
Adjacent LGAs	1	Casey	CFA District	1	District 08
SES Unit Area	1	Greater Dandenong	MFB District	0	

Table C2.1 – Consequence Summary of 1% AEP flood along Eumemmerring Creek & Hallam Valley Drain in Greater Dandenong

Summary of Consequences in a 1% AEP (100yr ARI) flash flood in Dandenong South

Property					
Properties	78				
Residential	0				
Commercial	0				
Industrial	78				
Public Land	0				
Rural	0				
Community Infrastructure					
Health Facilities	0		Child Care / Kindergartens	0	
Care Facilities	0		Community Venues	0	
Retirement Villages	0		Places of Worship	0	
Schools / Colleges	0		Prisons	0	
Essential Infrastructure					
Major Roads	2	Frankston – Dandenong Road; & Greens Road	Police Stations	0	
Major Rail	0		Government Buildings	0	
Bus Routes	2	890 & 901	Sewerage Facilities	1	1 Pumping Stations and 1 Emergency Relief Point
Power Facility	0		Levees	0	
Comms Services	0		Drainage Facilities	2	Retarding Basins
Emergency Services	0		Airports / Airfields	0	
Tourism / Recreation					
Sports Facilities	0		Caravan Parks	0	
Recreation Facilities	0		Camping Grounds	0	
Government Boundaries					
Local Gov't Areas	1	Greater Dandenong	CMA	1	Port Phillip & Westernport
Adjacent LGAs	1	Casey	CFA District	1	District 08
SES Unit Area	1	Greater Dandenong	MFB District	0	

Table C2.1 – Consequence Summary of 1% AEP flood along Eumemmerring Creek & Hallam Valley Drain in Greater Dandenong

Eumemmerring Creek and the surrounding suburbs of Dandenong South and Bangholme in the City of Greater Dandenong are located approximately 33km south-east of Melbourne in a predominantly business and industrial area. Eumemmerring Creek is the prominent watercourse in the area, flowing from the Northeast while a number of tributaries connect to the creek in the City of Greater Dandenong including the Hallam Valley Contour Drain, Eastern Contour Drain, the Dandenong South Drain and Greens Lane Drain. The creek flows east to west before discharging into Dandenong Creek in Bangholme.

High Intensity, short duration rainfall events can cause flash flooding in and around the tributaries connecting Eumemmerring Creek, while prolonged rainfall may see Eumemmerring Creek flood. Although the creek is bordered by levees along most of its length, a low point in the terrain near the junction with Dandenong Creek poses a flood risk for the number of residential properties in the area. See mapping in **Appendix F** for more insight into flooding in the area.

Warning Times

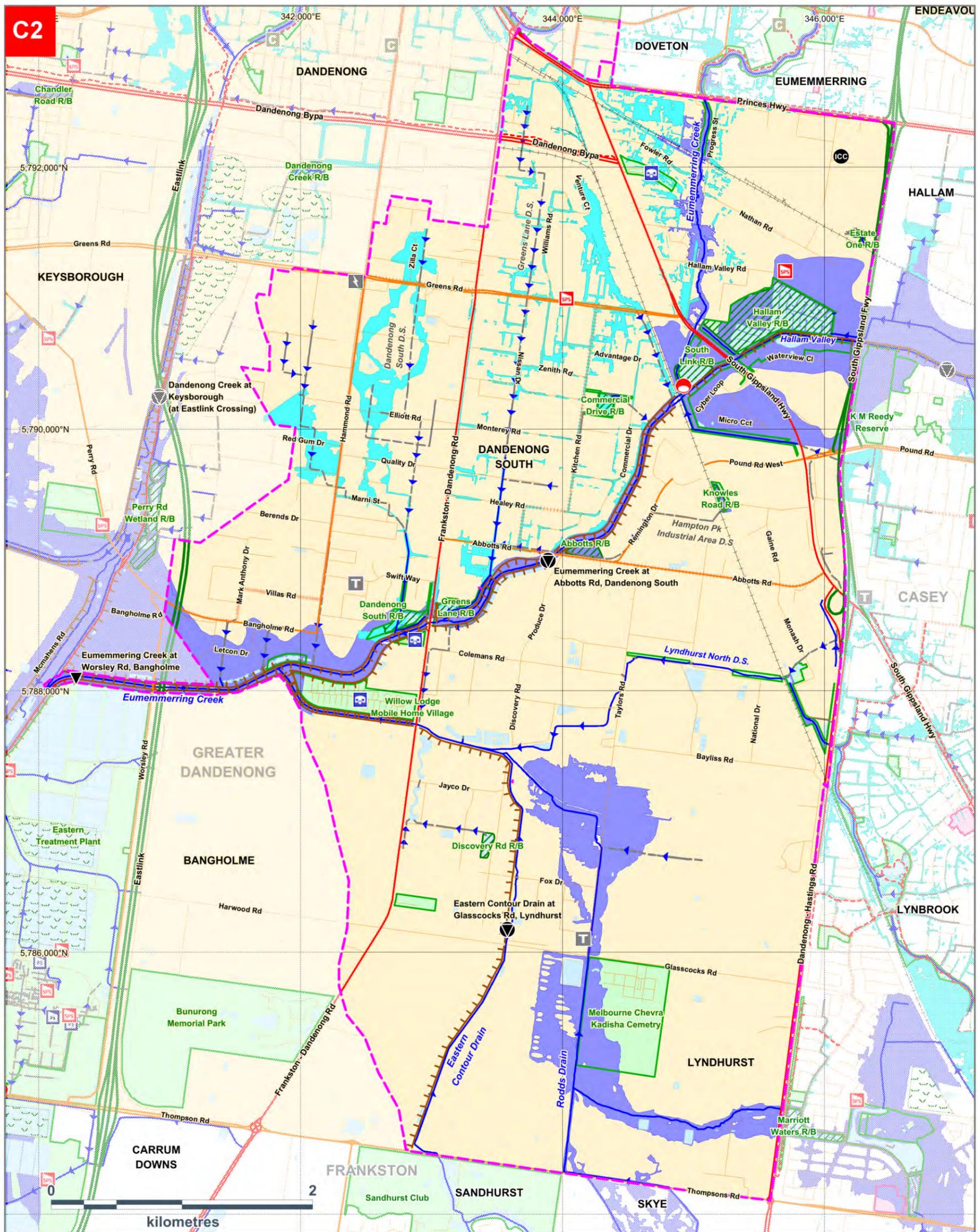
Neither the Bureau of Meteorology nor Melbourne Water currently provides flood forecasts for Eumemmerring Creek or the Eastern Contour Drain. All flood response actions must therefore be driven by rainfall and / or river level observations. Telemetered water level / flood gauges are located at Narre Warren North, Hampton Park, Dandenong South, Lyndhurst & Bangholme within the Eumemmerring Creek catchment. See **Appendix B** for typical flood travel times for Eumemmerring Creek.

Melbourne Water Hydrographic Monitoring Station	Station No.	Location	Stream Level & Flow Gauge	Rain Gauge	Melway Reference
Eumemmerring Creek downstream of Hallam-Belgrave Road, Narre Warren North	228235A	North side of the Creek, 500m west of Belgrave – Hallam Road, Narre Warren North	✓	✓	108F4
Hallam Valley Contour Drain, Hampton Park	228231A	North side of the Channel, 1.3km west of Hallam Road, Hampton Park	✓	✓	96D4
Eumemmerring Creek at Abbotts Road, Dandenong South	228203C	Southeast side of Channel, 70m south of Abbotts Road bridge, Dandenong South	✓	✓	95F8
Eumemmerring Creek at Worsley Road, Bangholme	228388A	South side of the Channel at Bicycle / Walking Trail footbridge, 500m west of Worsley Road, Bangholme	✓		94F10
Eastern Contour Drain at Glasscocks Road, Dandenong South	228233A	West side of the channel, 120m north of Glasscocks Road, Dandenong South	✓		128E3

Table C2.2 – Hydrographic Monitoring Stations within the Eumemmerring Creek catchment

These Gauges may provide some warning of expected flooding. See the Melbourne Water website for more information on these gauges: <http://www.melbournewater.com.au/waterdata/rainfallandriverveldata/Pages/Rainfall-and-river-level-new.aspx>. It is advised that residents monitor the Bureau of Meteorology's website <http://www.bom.gov.au/> and the VicEmergency website <https://emergency.vic.gov.au/> for any thunderstorm, flood or severe weather warnings present for their area.

Areas of Flood Risk



Map Produced by VICSES March 2019

CITY OF GREATER DANDENONG

Version 3. March 2019

C2. Areas of flood risk around Dandenong South and Lyndhurst

- | | | | | | |
|--|---------------------------------|--|----------------------------------|--|--------------------------|
| | Waterbody | | Bus Route (PTV) | | Telephone Exchange |
| | 1% AEP Riverine Flood Extent | | Embankment | | Drainage Pumping Station |
| | 1% AEP Flash Flood Extent | | Levee | | Community Centre |
| | Reserve / Park | | Boundary for this Appendix | | Power Terminal Station |
| | Commercial Precinct | | Melbourne Water Stormwater Drain | | Rain Gauge |
| | Melbourne Water Retarding Basin | | River / Creek | | Stream Level Gauge |
| | Natural Wetland | | Bicycle / Walking Trail | | Caravan Park |
| | | | Sewer Emergency Relief Point | | Point |
| | | | Sewer Pumping Station | | |



SES VICTORIA
Melbourne Water

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Figure C2 – Areas of flood risk along Eumemmerring Creek & the Eastern Contour Drain in the City of Greater Dandenong

Properties at Flood Risk

Properties listed in the table below are at risk from flooding along Eumemmerring Creek or the Hallam Valley Contour Drain in the City of Greater Dandenong. As more intelligence becomes available, this list may change. This table has been populated based on modelling work as part of the Eumemmerring Creek u/s Hallam Valley (Cardno, October 2017), Eumemmerring Creek d/s Hallam Valley (Melbourne Water, March 2001) and the Hallam Valley Contour Drain (Melbourne Water, March 2001) flood mapping and risk assessment programs.

This Property Flood Risk Table is presented by the Victoria State Emergency Service for the purpose of disseminating emergency management information. The contents of the information have not been independently verified by the Victoria State Emergency Service. No liability is accepted for any damage, loss or injury caused by errors or omissions in this information or for any action taken by any person in reliance upon it.

Properties at risk from Flooding around Eumemmerring Creek during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use
Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
45	Bangholme Road	Bangholme	Eumemmerring Creek	Riverine
81	Bangholme Road	Bangholme	Eumemmerring Creek	Riverine
83-95	Bangholme Road	Bangholme	Eumemmerring Creek	Riverine
117	Bangholme Road	Bangholme	Eumemmerring Creek	Riverine
189	Bangholme Road	Bangholme	Eumemmerring Creek	Riverine
207	Bangholme Road	Bangholme	Eumemmerring Creek	Riverine
208	Bangholme Road	Bangholme	Eumemmerring Creek	Riverine
213	Bangholme Road	Bangholme	Eumemmerring Creek	Riverine
221	Bangholme Road	Bangholme	Eumemmerring Creek	Riverine
226	Bangholme Road	Bangholme	Eumemmerring Creek	Riverine
231	Bangholme Road	Bangholme	Eumemmerring Creek	Riverine
2-20	Carter Way	Dandenong South	Hallam Valley Contour Drain	Riverine
8/22	Carter Way	Dandenong South	Hallam Valley Contour Drain	Riverine
3-5	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
7-9	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
18-20	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
19-25	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
22-24	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
26-28	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
30-36	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
31-33	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
38	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
39-45	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
40-42	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
44-46	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
47	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
1/48-58	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
2/48-58	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
3/48-58	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
4/48-58	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
49	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
60-62	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine

Properties at risk from Flooding around Eumemmerring Creek during a 1% AEP event

Properties at risk from Flooding around Eumemmerring Creek during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use
Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
64-66	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
68-70	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
72-74	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
76-78	Cyber Loop	Dandenong South	Hallam Valley Contour Drain	Riverine
96-108	Greens Road	Dandenong South	Eumemmerring Creek	Riverine
110-116	Greens Road	Dandenong South	Eumemmerring Creek	Riverine
47-53	Hallam Valley Road	Dandenong South	Eumemmerring Creek	Riverine
47-59	Hallam Valley Road	Dandenong South	Eumemmerring Creek	Riverine
55-59	Hallam Valley Road	Dandenong South	Eumemmerring Creek	Riverine
1-23	Letcon Drive	Bangholme	Eumemmerring Creek	Riverine
2-14	Letcon Drive	Bangholme	Eumemmerring Creek	Riverine
10X	Letcon Drive	Bangholme	Eumemmerring Creek	Riverine
16-30	Letcon Drive	Bangholme	Eumemmerring Creek	Riverine
25-29	Letcon Drive	Bangholme	Eumemmerring Creek	Riverine
31-35	Letcon Drive	Bangholme	Eumemmerring Creek	Riverine
32-44	Letcon Drive	Bangholme	Eumemmerring Creek	Riverine
37-41	Letcon Drive	Bangholme	Eumemmerring Creek	Riverine
43-55	Letcon Drive	Bangholme	Eumemmerring Creek	Riverine
46-54	Letcon Drive	Bangholme	Eumemmerring Creek	Riverine
55X	Letcon Drive	Bangholme	Eumemmerring Creek	Riverine
56	Letcon Drive	Bangholme	Eumemmerring Creek	Riverine
57-67	Letcon Drive	Bangholme	Eumemmerring Creek	Riverine
58-66	Letcon Drive	Bangholme	Eumemmerring Creek	Riverine
5	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
6-10	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
7	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
11-15	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
12-16	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
17-21	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
18-22	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
23-25	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
24	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
26-28	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
27-29	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
30-32	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
34	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
35-39	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
36-40	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
41-45	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
42-44	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
46	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
48-52	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
53	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
56	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine

Properties at risk from Flooding around Eumemmerring Creek during a 1% AEP event

Properties at risk from Flooding around Eumemmerring Creek during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use
Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
58	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
60	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
62	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
64	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
1/66-74	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
2/66-74	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
3/66-74	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
4/66-74	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
5/66-74	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
6/66-74	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
7/66-74	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
76-80	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
82	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
84-86	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
88-92	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
94-98	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
100-104	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
106-110	Micro Circuit	Dandenong South	Hallam Valley Contour Drain	Riverine
120	Nathan Road	Dandenong South	Hallam Valley Contour Drain	Riverine
15	Nicholas Drive	Dandenong South	Eumemmerring Creek	Riverine
15A	Nicholas Drive	Dandenong South	Eumemmerring Creek	Riverine
17	Nicholas Drive	Dandenong South	Eumemmerring Creek	Riverine
1/19	Nicholas Drive	Dandenong South	Eumemmerring Creek	Riverine
2/19	Nicholas Drive	Dandenong South	Eumemmerring Creek	Riverine
21	Nicholas Drive	Dandenong South	Eumemmerring Creek	Riverine
23	Nicholas Drive	Dandenong South	Eumemmerring Creek	Riverine
25	Nicholas Drive	Dandenong South	Eumemmerring Creek	Riverine
31A	Princes Highway	Dandenong South	Eumemmerring Creek	Riverine
31B	Princes Highway	Dandenong South	Eumemmerring Creek	Riverine
42	Progress Street	Dandenong South	Eumemmerring Creek	Riverine
44	Progress Street	Dandenong South	Eumemmerring Creek	Riverine
46	Progress Street	Dandenong South	Eumemmerring Creek	Riverine
48	Progress Street	Dandenong South	Eumemmerring Creek	Riverine
50	Progress Street	Dandenong South	Eumemmerring Creek	Riverine
52	Progress Street	Dandenong South	Eumemmerring Creek	Riverine
54	Progress Street	Dandenong South	Eumemmerring Creek	Riverine
56	Progress Street	Dandenong South	Eumemmerring Creek	Riverine
6-12	Round Tower Road	Dandenong South	Eumemmerring Creek	Riverine
1/9-11	South Link	Dandenong South	Hallam Valley Contour Drain	Riverine
2/9-11	South Link	Dandenong South	Hallam Valley Contour Drain	Riverine
3/9-11	South Link	Dandenong South	Hallam Valley Contour Drain	Riverine
6/10-12	South Link	Dandenong South	Hallam Valley Contour Drain	Riverine
13-15	South Link	Dandenong South	Hallam Valley Contour Drain	Riverine
17-19	South Link	Dandenong South	Hallam Valley Contour Drain	Riverine

Properties at risk from Flooding around Eumemmerring Creek during a 1% AEP event

Properties at risk from Flooding around Eumemmerring Creek during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use
Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
21-23	South Link	Dandenong South	Hallam Valley Contour Drain	Riverine
22	South Link	Dandenong South	Hallam Valley Contour Drain	Riverine
26	South Link	Dandenong South	Hallam Valley Contour Drain	Riverine
28	South Link	Dandenong South	Hallam Valley Contour Drain	Riverine
29-31	South Link	Dandenong South	Hallam Valley Contour Drain	Riverine
30-32	South Link	Dandenong South	Hallam Valley Contour Drain	Riverine
33	South Link	Dandenong South	Hallam Valley Contour Drain	Riverine
34-36	South Link	Dandenong South	Hallam Valley Contour Drain	Riverine
35	South Link	Dandenong South	Hallam Valley Contour Drain	Riverine
37-39	South Link	Dandenong South	Hallam Valley Contour Drain	Riverine
38-40	South Link	Dandenong South	Hallam Valley Contour Drain	Riverine
42-44	South Link	Dandenong South	Hallam Valley Contour Drain	Riverine
46-48	South Link	Dandenong South	Hallam Valley Contour Drain	Riverine
216-222	South Gippsland Highway	Dandenong South	Hallam Valley Contour Drain	Riverine
224-230	South Gippsland Highway	Dandenong South	Hallam Valley Contour Drain	Riverine
236-238	South Gippsland Highway	Dandenong South	Hallam Valley Contour Drain	Riverine
240-242	South Gippsland Highway	Dandenong South	Hallam Valley Contour Drain	Riverine
244-246	South Gippsland Highway	Dandenong South	Hallam Valley Contour Drain	Riverine
296-298	South Gippsland Highway	Dandenong South	Hallam Valley Contour Drain	Riverine
300	South Gippsland Highway	Dandenong South	Hallam Valley Contour Drain	Riverine
302	South Gippsland Highway	Dandenong South	Hallam Valley Contour Drain	Riverine
306	South Gippsland Highway	Dandenong South	Hallam Valley Contour Drain	Riverine
308	South Gippsland Highway	Dandenong South	Hallam Valley Contour Drain	Riverine
310	South Gippsland Highway	Dandenong South	Hallam Valley Contour Drain	Riverine
314-322	South Gippsland Highway	Dandenong South	Hallam Valley Contour Drain	Riverine
324	South Gippsland Highway	Dandenong South	Hallam Valley Contour Drain	Riverine
326	South Gippsland Highway	Dandenong South	Hallam Valley Contour Drain	Riverine
328-330	South Gippsland Highway	Dandenong South	Hallam Valley Contour Drain	Riverine
1-9	Waterview Close	Dandenong South	Hallam Valley Contour Drain	Riverine
10-18	Waterview Close	Dandenong South	Hallam Valley Contour Drain	Riverine
11-55	Waterview Close	Dandenong South	Hallam Valley Contour Drain	Riverine
20-50	Waterview Close	Dandenong South	Hallam Valley Contour Drain	Riverine
52-62	Waterview Close	Dandenong South	Hallam Valley Contour Drain	Riverine
57	Waterview Close	Dandenong South	Hallam Valley Contour Drain	Riverine
59	Waterview Close	Dandenong South	Hallam Valley Contour Drain	Riverine
61	Waterview Close	Dandenong South	Hallam Valley Contour Drain	Riverine
63	Waterview Close	Dandenong South	Hallam Valley Contour Drain	Riverine
64-84	Waterview Close	Dandenong South	Hallam Valley Contour Drain	Riverine
65	Waterview Close	Dandenong South	Hallam Valley Contour Drain	Riverine
67	Waterview Close	Dandenong South	Hallam Valley Contour Drain	Riverine
69	Waterview Close	Dandenong South	Hallam Valley Contour Drain	Riverine
1/73-79	Waterview Close	Dandenong South	Hallam Valley Contour Drain	Riverine
86	Waterview Close	Dandenong South	Hallam Valley Contour Drain	Riverine
88-92	Waterview Close	Dandenong South	Hallam Valley Contour Drain	Riverine

Properties at risk from Flooding around Eumemmerring Creek during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use
Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
Total				
164				

Table C2.3 – Properties at risk of flooding along the Eumemmerring Creek catchment in the City of Greater Dandenong

Properties listed in the table below are at risk from flooding along the Dandenong South and Greens Lane Drainage Systems during a 1% AEP flood event. As more intelligence becomes available, this list may change. This table has been populated based on modelling work as part of the Dandenong South Drain (CMPS&F, April 1998) and the Greens Lane (Cardno, June 2016) flood mapping and risk assessment programs.

This Property Flood Risk Table is presented by the Victoria State Emergency Service for the purpose of disseminating emergency management information. The contents of the information have not been independently verified by the Victoria State Emergency Service. No liability is accepted for any damage, loss or injury caused by errors or omissions in this information or for any action taken by any person in reliance upon it.

Properties at risk from Flooding along Dandenong South and Greens Lane Drains during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use
Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
6-8	Abbotts Road	Dandenong South	Greens Lane Drainage System	Flash
1-2/10-36	Abbotts Road	Dandenong South	Greens Lane Drainage System	Flash
3/10-36	Abbotts Road	Dandenong South	Greens Lane Drainage System	Flash
4/10-36	Abbotts Road	Dandenong South	Greens Lane Drainage System	Flash
2	Advantage Drive	Dandenong South	Greens Lane Drainage System	Flash
4	Advantage Drive	Dandenong South	Greens Lane Drainage System	Flash
46	Brooks Drive	Dandenong South	Dandenong South Drainage System	Flash
7-9	Cahill Street	Dandenong South	Dandenong South Drainage System	Flash
10	Cahill Street	Dandenong South	Dandenong South Drainage System	Flash
11	Cahill Street	Dandenong South	Dandenong South Drainage System	Flash
12-14	Cahill Street	Dandenong South	Dandenong South Drainage System	Flash
13	Cahill Street	Dandenong South	Dandenong South Drainage System	Flash
16	Cahill Street	Dandenong South	Dandenong South Drainage System	Flash
15-17	Capital Drive	Dandenong South	Greens Lane Drainage System	Flash
41-51	Elliott Road	Dandenong South	Dandenong South Drainage System	Flash
46-48	Elliott Road	Dandenong South	Dandenong South Drainage System	Flash
46-52	Elliott Road	Dandenong South	Dandenong South Drainage System	Flash
54-56	Elliott Road	Dandenong South	Dandenong South Drainage System	Flash
57-59	Elliott Road	Dandenong South	Dandenong South Drainage System	Flash
127-139	Frankston-Dandenong Road	Dandenong South	Greens Lane Drainage System	Flash
269-271	Frankston-Dandenong Road	Dandenong South	Greens Lane Drainage System	Flash
35	Greens Road	Dandenong South	Greens Lane Drainage System	Flash
51-95	Greens Road	Dandenong South	Greens Lane Drainage System	Flash
60-64	Greens Road	Dandenong South	Greens Lane Drainage System	Flash
1/66	Greens Road	Dandenong South	Greens Lane Drainage System	Flash
2/66	Greens Road	Dandenong South	Greens Lane Drainage System	Flash

Properties at risk from Flooding along Dandenong South and Greens Lane Drains during a 1% AEP event

Residential	Commercial	Industrial	Rural	Public Use
Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
68-70	Greens Road	Dandenong South	Greens Lane Drainage System	Flash
72-74	Greens Road	Dandenong South	Greens Lane Drainage System	Flash
97	Greens Road	Dandenong South	Greens Lane Drainage System	Flash
137	Greens Road	Dandenong South	Dandenong South Drainage System	Flash
139-145	Greens Road	Dandenong South	Dandenong South Drainage System	Flash
1B/314-316	Hammond Road	Dandenong South	Dandenong South Drainage System	Flash
1A/314-316	Hammond Road	Dandenong South	Dandenong South Drainage System	Flash
2/314-316	Hammond Road	Dandenong South	Dandenong South Drainage System	Flash
3/314-316	Hammond Road	Dandenong South	Dandenong South Drainage System	Flash
4/314-316	Hammond Road	Dandenong South	Dandenong South Drainage System	Flash
318-320	Hammond Road	Dandenong South	Dandenong South Drainage System	Flash
322-324	Hammond Road	Dandenong South	Dandenong South Drainage System	Flash
326-328	Hammond Road	Dandenong South	Dandenong South Drainage System	Flash
401-407	Hammond Road	Dandenong South	Dandenong South Drainage System	Flash
1/409-411	Hammond Road	Dandenong South	Dandenong South Drainage System	Flash
2/409-411	Hammond Road	Dandenong South	Dandenong South Drainage System	Flash
3/409-411	Hammond Road	Dandenong South	Dandenong South Drainage System	Flash
10-12	Johnston Court	Dandenong South	Greens Lane Drainage System	Flash
31	Marni Street	Dandenong South	Dandenong South Drainage System	Flash
33	Marni Street	Dandenong South	Dandenong South Drainage System	Flash
4	Maxwell Street	Dandenong South	Greens Lane Drainage System	Flash
6	Maxwell Street	Dandenong South	Greens Lane Drainage System	Flash
8	Maxwell Street	Dandenong South	Greens Lane Drainage System	Flash
10	Maxwell Street	Dandenong South	Greens Lane Drainage System	Flash
12	Maxwell Street	Dandenong South	Greens Lane Drainage System	Flash
14	Maxwell Street	Dandenong South	Greens Lane Drainage System	Flash
16-18	Maxwell Street	Dandenong South	Greens Lane Drainage System	Flash
2	Portlink Drive	Dandenong South	Rodds Drain	Flash
15-17	Quality Drive	Dandenong South	Dandenong South Drainage System	Flash
6	Red Gum Drive	Dandenong South	Dandenong South Drainage System	Flash
7	Red Gum Drive	Dandenong South	Dandenong South Drainage System	Flash
8	Red Gum Drive	Dandenong South	Dandenong South Drainage System	Flash
9	Red Gum Drive	Dandenong South	Dandenong South Drainage System	Flash
10	Red Gum Drive	Dandenong South	Dandenong South Drainage System	Flash
11	Red Gum Drive	Dandenong South	Dandenong South Drainage System	Flash
12	Red Gum Drive	Dandenong South	Dandenong South Drainage System	Flash
13-17	Red Gum Drive	Dandenong South	Dandenong South Drainage System	Flash
14	Red Gum Drive	Dandenong South	Dandenong South Drainage System	Flash
14	Red Gum Drive	Dandenong South	Dandenong South Drainage System	Flash
1/14	Red Gum Drive	Dandenong South	Dandenong South Drainage System	Flash
2/14	Red Gum Drive	Dandenong South	Dandenong South Drainage System	Flash
19	Red Gum Drive	Dandenong South	Dandenong South Drainage System	Flash
21-23	Red Gum Drive	Dandenong South	Dandenong South Drainage System	Flash
33	Tatterson Road	Dandenong South	Dandenong South Drainage System	Flash

Properties at risk from Flooding along Dandenong South and Greens Lane Drains during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use
Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
92-96	Williams Road	Dandenong South	Greens Lane Drainage System	Flash
98-100	Williams Road	Dandenong South	Greens Lane Drainage System	Flash
65	Zenith Road	Dandenong South	Greens Lane Drainage System	Flash
1/75	Zenith Road	Dandenong South	Greens Lane Drainage System	Flash
9-13	Zilla Court	Dandenong South	Dandenong South Drainage System	Flash
15-19	Zilla Court	Dandenong South	Dandenong South Drainage System	Flash
21-23	Zilla Court	Dandenong South	Dandenong South Drainage System	Flash
25	Zilla Court	Dandenong South	Dandenong South Drainage System	Flash
6-8	Abbotts Road	Dandenong South	Greens Lane Drainage System	Flash
1-2/10-36	Abbotts Road	Dandenong South	Greens Lane Drainage System	Flash
3/10-36	Abbotts Road	Dandenong South	Greens Lane Drainage System	Flash
4/10-36	Abbotts Road	Dandenong South	Greens Lane Drainage System	Flash
Total				
78				

Table C2.4 – Properties at risk of flash flooding in Dandenong South in the City of Greater Dandenong

Isolation

No major isolation risks exist for areas around Dandenong South, Lyndhurst or Bangholme during a 1% AEP (100yr ARI) event. Some localised short-duration isolation may occur due to flash flooding.

Essential Infrastructure

During an event, see the Public Transport Victoria's Website for details on delays or alterations to services. <http://ptv.vic.gov.au/live-travel-updates/>. A map of Public Transport routes within the City of Greater Dandenong is available via the website at: https://static.ptv.vic.gov.au/siteassets/Maps/Localities/PDFs/18_Greater_Dandenong_LAM.pdf

Apart from the roads outlined below, all other essential infrastructure and services areas around Dandenong South, Lyndhurst or Bangholme are expected to remain unaffected by flooding during a 1% AEP (100yr ARI) event.

Road Closures

The following roads are subject to closure during flooding around Dandenong South, Lyndhurst or Bangholme. Check the VicRoads website for more details: <https://traffic.vicroads.vic.gov.au/>

VicRoads Roads flooded in a 1% AEP (100yr ARI) event
• Frankston - Dandenong Road, Dandenong South north of Eumemmerring Creek
• Frankston - Dandenong Road, Dandenong South north of the Dandenong Bypass
• Greens Road, Dandenong South between Frankston – Dandenong Road and South Gippsland Highway
• South Gippsland Hwy, Dandenong South, south of Greens Road and North of Pound Road West

Table C2.5 – VicRoads Possible Road Closures during a flooding event

Greater Dandenong City Council Roads flooded in a 1% AEP (100yr ARI) event	
BANGHOLME	<ul style="list-style-type: none"> • Kitchen Road
<ul style="list-style-type: none"> • Bangholme Road 	<ul style="list-style-type: none"> • Marni Street
<ul style="list-style-type: none"> • Letcon Drive 	<ul style="list-style-type: none"> • Maxwell Street
<ul style="list-style-type: none"> • Worsley Road 	<ul style="list-style-type: none"> • Micro Circuit
DANDENONG SOUTH	<ul style="list-style-type: none"> • Nissan Drive
<ul style="list-style-type: none"> • Abbots Road 	<ul style="list-style-type: none"> • Portlink Drive
<ul style="list-style-type: none"> • Advantage Drive 	<ul style="list-style-type: none"> • Progress Street
<ul style="list-style-type: none"> • Cahill Street 	<ul style="list-style-type: none"> • Redgum Drive
<ul style="list-style-type: none"> • Capital Drive 	<ul style="list-style-type: none"> • Round Tower Road
<ul style="list-style-type: none"> • Carter Way 	<ul style="list-style-type: none"> • South Link
<ul style="list-style-type: none"> • Cyber Loop 	<ul style="list-style-type: none"> • Waterview Close
<ul style="list-style-type: none"> • Elliott Road 	<ul style="list-style-type: none"> • Williams Road
<ul style="list-style-type: none"> • Fowler Road 	<ul style="list-style-type: none"> • Zenith Road
<ul style="list-style-type: none"> • Hallam Valley Road 	<ul style="list-style-type: none"> • Zilla Court
<ul style="list-style-type: none"> • Johnston Court 	<ul style="list-style-type: none"> •

Table C2.6 – Greater Dandenong City Council possible road closures during a flooding event

Flood Mitigation

Retarding Basins

Melbourne Water Retarding Basin	On Drain/ Waterway	Area	Storage Capacity	Spillway Crest Level	Embankment Height & (Crest Level)	ANCOLD Hazard Rating	Buildings In Flow Path (dam breach)	Melway Reference
Abbotts	Eumemmerring Creek	2.0 ha	69 ML	No Spillway	2.0m (10.6m AHD)	Very Low	0	95 F8
Commercial Drive	Greens Lane East Drain	1.9 ha	200 ML	12.25m AHD	N/A	Low	0	95 G5
Dandenong South	Dandenong South Drain	3.4 ha	50 ML	Unavailable	2.0m	Very Low	0	95 C9
Discovery Road	Eastern Contour Drain	1.3 ha	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	128 D1
Estate One	Hallam Valley	0.8 ha	8.9 ML	15.9m AHD	1.0m (15.9m AHD)	Very Low	Unavailable	96 B2
Greens Lane	Eumemmerring Creek	1.5 ha	18.8 ML	Unavailable	1.3m (9.75m AHD)	Very Low	0	95 D9
Hallam Valley	Hallam Valley Contour Drain	27.3 ha	673 ML	No Spillway	1.5m (15.2m AHD)	Very Low	0	95 K4
Knowles Road	Hampton Park Industrial Area Drain	0.8 ha	Unavailable	No Spillway	N/A	Low	0	95 J7
Marriott Waters (City of Casey)	Cranbourne Outfall Drain	4.2 ha	115 ML	19.7m AHD	In Cut (20.5m AHD)	Low	0	128 K7
South Link	Eumemmerring Creek	2.7 ha	43 ML	No Spillway	In Cut	Low	0	94 J4

Table C2.7 – Melbourne Water Retarding Basins within the Eumemmerring Creek catchment in the City of Greater Dandenong

Levees

Levee	Reach	Side	Levee Height	Levee Length	Expected Level of Protection	ANCOLD Hazard Rating	Consequences of Failure	Melway Reference
Eumemmerring Creek	Abbotts Road to Frankston-Dandenong Road	North	1.5m	1.3km	The 1% AEP flood level exceeds the levee height at the downstream end by 1.1m	Low	2 industrial lots may flood	95F8-95D9
Eumemmerring Creek	Abbotts Road to Frankston-Dandenong Road	South	1.5m	1.3km	1% AEP flood event, freeboard Unavailable	Low	3 industrial lots may flood	95F8-95D9
Eumemmerring Creek	Frankston-Dandenong Road to	North	2.3m	1.3km	1% AEP flood event,	Low	1 industrial lot may flood	95D9-95A10

Levee	Reach	Side	Levee Height	Levee Length	Expected Level of Protection	ANCOLD Hazard Rating	Consequences of Failure	Melway Reference
	Eastern Contour Drain				freeboard Unavailable			
Eumemmerring Creek	Frankston-Dandenong Road to Eastern Contour Drain	South	2.2m	1.3km	1% AEP flood event, freeboard Unavailable	High B	152 residential properties, most located within the Big4 Dandenong Tourist Park and Willow Lodge Mobile Home Village likely to flood. 4 industrial lots may also flood	95D9-95A10
Eumemmerring Creek	Eastern Contour Drain to Worsley Road	North	3.0m	1.1km	1% AEP flood event, freeboard Unavailable	Low	1 large industrial lot may flood	95A10-94H10
Eumemmerring Creek	Eastern Contour Drain to Worsley Road	South	3.0m	1.1km	1% AEP flood event, freeboard Unavailable	Very Low	Uninhabited land may flood	95A10-94H10
Eumemmerring Creek	Railway Line to Abbots Road	North	2.4m	1.6km	1% AEP flood event, freeboard Unavailable	Significant	26 industrial lots may flood	95H5-95F8
Eumemmerring Creek	Railway Line to Abbots Road	South	2.0m	1.6km	1% AEP flood event, freeboard Unavailable	Low	14 industrial lots may flood	95H5-95F8
Eumemmerring Creek	South Gippsland Hwy to Railway Line	North	2.0m	0.5km	Unavailable	Low	5 industrial lots may flood	95H5-95K4
Eumemmerring Creek	Eastlink to Patterson River	South	4.0m	0.7km	1% AEP flood event, freeboard Unavailable	Very Low	Eastern Treatment Plant may flood	94H10-94F10
Eumemmerring Creek	Eastlink to Patterson River	North	3.0m	0.7km	1% AEP flood event, freeboard Unavailable	Very Low	Rural land may flood	94H10-94F10
Hallam Valley Contour Drain	South Gippsland Hwy to South Gippsland Fwy	North	2.0m	0.9km	1% AEP flood event, approximate 0.2m freeboard	Very Low	Nil consequence with wetland located behind levee	95K4-96B4
Eastern Contour Drain	Frankston-Dandenong Road to Glasscocks Road	South	1.5m	2.2km	Unavailable	Significant	4 large industrial lots may flood	95C11-128E3
Eastern Contour Drain	Eumemmerring Creek to Frankston-Dandenong Road	North	2.5m	1.2km	The 1% AEP flood level exceeds the levee height at the downstream end by 0.4m	High A	377 residential properties within the Willow Lodge Mobile Home Village likely to flood	95A10-95C11
Eastern Contour Drain	Eumemmerring Creek to Frankston-Dandenong Road	South	2.5m	1.2km	The 1% AEP flood level exceeds the levee height at the downstream end by 1.1m	Very Low	Rural land may flood	95A10-95C11
Eastern Contour Drain	Glasscocks Road to Thompson Road	West	1.5m	2.0km	Unavailable	Significant	3 industrial lots and agricultural land may flood	128E3-128C7

Table C2.8– Melbourne Water Levees in the Eumemmerring Creek Catchment in the City of Greater Dandenong

Sewerage Infrastructure

Sewerage Infrastructure of note during a severe flood event located around Eumemmerring Creek is contained within the following two tables.

Sewer Pumping Stations

Sewerage Pumping Station	On Drain / Waterway	Bank / Side of Waterway	Operator	Location	Melway Reference
Greens Road	Greens Lane D.S.	-	South East Water	51 Greens Road, Dandenong South	95 F3
Nathan Road	Hallam Valley	-	South East Water	120 Nathan Road, Dandenong South	96 A3

Table C2.9 – Sewer Pumping Stations within the Eumemmerring Creek Catchment in the City of Greater Dandenong

Sewer Emergency Relief Points

On Drain / Waterway	Bank / Side of Waterway	Location	Melway Reference
Eumemmerring Creek and Hallam Valley	Northwest	South Link Retarding Basin, South Gippsland Highway, Dandenong South	95 H5

Table C2.10 – Sewer Emergency Relief Points in the Eumemmerring Creek Catchment in the City of Greater Dandenong

Command, Control and Coordination

VICSES will assume overall control of the response to flood incidents. Other agencies will be requested to support operations as detailed in this Plan. Control and coordination of a flood incident shall be carried out at the lowest effective level and in accordance with the State Emergency Response Plan (EMMV Part 3). During significant events, VICSES will conduct incident management using multi-agency resources.

Flood Impacts & Operational Considerations (Intelligence Cards)

The tables on the following pages provide a breakdown of the possible consequences of flooding along Eumemmerring Creek and Hallam Valley Contour Drain at various creek or drain heights within Greater Dandenong. These tables are to be used only as a guide as no two floods at a location will have identical impacts.

Intelligence Cards have been included for the following locations:

- Eumemmerring Creek at Narre Warren North
- Hallam Valley Contour Drain at Hampton Park
- Eumemmerring Creek at Dandenong South
- Dandenong South and Greens Lane Drainage Systems, Dandenong South
- Rodds Drain at Lyndhurst

FLOOD INTELLIGENCE CARD – NARRE WARREN NORTH GAUGE, EUMEMMERRING CREEK

Version 3 – April 2019



Note: flood intelligence records are approximations. This is because no two floods at a location, even if they peak at the same height, will have identical impacts. Flood intelligence cards detail the relationship between flood magnitude and flood consequences. More details about flood intelligence and its use can be found in the Australian Emergency Management Manuals flood series.

This Flood Intelligence Card publication is presented by the Victoria State Emergency Service for the purpose of disseminating emergency management information. The contents of the information have not been independently verified by the Victoria State Emergency Service. No liability is accepted for any damage, loss or injury caused by errors or omissions in this information or for any action taken by any person in reliance upon it.

LOCATION	North side of the Creek, 500m west of Belgrave – Hallam Road, Narre Warren North
MELWAY REFERENCE:	108 F4
STREAM:	Eumemmerring Creek
GAUGE NUMBER:	228235A
GAUGE ZERO:	58.025m AHD
GAUGE TYPE	Stream Level & Rain

MINOR:	Not Established
MODERATE:	Not Established
MAJOR	Not Established
LEVEE HEIGHT:	N/A
TELEMETRIC/MANUAL	Telemetric
HIGHEST RECORDED FLOOD:	2.87m (3 rd February 2005)

Creek Height	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
3.83m	1% AEP (100yr ARI) Flood Level	<ul style="list-style-type: none"> Note: It is not known at what level infrastructure contained below starts being flooded <p>Properties at Flood Risk 16 Properties in Total</p> <ul style="list-style-type: none"> 96-108 & 110-116 Greens Road, Dandenong South 47-53, 47-59 & 55-59 Hallam Valley Road, Dandenong South 31A & 31B Princes Highway, Dandenong South 42, 44, 46, 48, 50, 52, 54 & 56 Progress Street, Dandenong South 6-12 Round Tower Road, Dandenong South <p>Essential Infrastructure Likely Impacted</p> <ul style="list-style-type: none"> Bus Route 892 along South Gippsland Highway between Greens Road and Pound Road <p>Water Over Road</p> <ul style="list-style-type: none"> Progress Street, Dandenong South Fowler Road, Dandenong South Round Tower Road, Dandenong South between Railway Line and Hallam Valley Road Hallam Valley Road, Dandenong South near Round Tower Road South Gippsland Hwy, Dandenong South at Greens Road 	

Table C2.11 – Breakdown of likely consequences at various Narre Warren North gauge level heights along Eumemmerring Creek in Greater Dandenong with operational considerations

FLOOD INTELLIGENCE CARD – HAMPTON PARK GAUGE, HALLAM VALLEY CONTOUR DRAIN

Version 3 – April 2019



Note: flood intelligence records are approximations. This is because no two floods at a location, even if they peak at the same height, will have identical impacts. Flood intelligence cards detail the relationship between flood magnitude and flood consequences. More details about flood intelligence and its use can be found in the Australian Emergency Management Manuals flood series.

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LOCATION	North side of the Channel, 1.3km west of Hallam Road, Hampton Park
MELWAY REFERENCE:	96 D4
STREAM:	Hallam Valley Contour Drain
GAUGE NUMBER:	228231A
GAUGE ZERO:	11.668m AHD
GAUGE TYPE	Stream Level & Rain

MINOR:	Not Established
MODERATE:	Not Established
MAJOR	Not Established
LEEVE HEIGHT:	3.5m (approximate)
TELEMETRIC/MANUAL	Telemetric
HIGHEST RECORDED FLOOD:	3.60m (7 th August 1978 and 26 th July 1987)

Creek Height	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
3.33m	1% AEP (100yr ARI) Flood Level	<ul style="list-style-type: none"> Note: It is not known at what level infrastructure contained below starts being flooded Properties at Flood Risk 115 Properties in Total 2-20 & 8/22 Carter Way, Dandenong South 3-5, 7-9, 18-20, 19-25, 22-24, 26-28, 30-36, 31-33, 38, 39-45, 40-42, 44-46, 47, Factories 1-4/48-58, 49, 60-62, 64-66, 68-70, 72-74 & 76-78 Cyber Loop, Dandenong South 5, 6-10, 7, 11-15, 12-16, 17-21, 18-22, 23-25, 24, 26-28, 27-29, 30-32, 34, 35-39, 36-40, 41-45, 42-44, 46, 48-52, 53, 56, 58, 60, 62, 64, Factories 1-7/66-74, 76-80, 82, 84-86, 88-92, 94-98, 100-104 & 106-110 Micro Circuit, Dandenong South 120 Nathan Road, Dandenong South 216-222, 224-230, 236-238, 240-242, 244-246, 296-298, 300, 302, 306, 308, 310, 314-322, 324, 326 & 328-330 South Gippsland Highway, Dandenong South Factories 1-3/9-11, 6/10-12, 13-15, 17-19, 21-23, 22, 26, 28, 29-31, 30-32, 33, 34-36, 35, 37-39, 38-40, 42-44 & 46-48 South Link, Dandenong South 1-9, 10-18, 11-55, 20-50, 52-62, 57, 59, 61, 63, 64-84, 65, 67, 69, 1/73-79, 86 & 88-92 Waterview Close, Dandenong South Water Over Road Waterview Close, Dandenong South South Gippsland Hwy, Dandenong South north of Pound Road West 	

Creek Height	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		<ul style="list-style-type: none"> • Carter Way, Dandenong South • South Link, Dandenong South • Cyber Loop, Dandenong South • Micro Circuit, Dandenong South 	
3.5m		<ul style="list-style-type: none"> • Approximate Levee Height 	
3.60m	7 th August 1978 and 26 th July 1987 Flood Level peaks		

Table C2.12 – Breakdown of likely consequences at various Hampton Park gauge level heights along the Hallam Valley Contour Drain with operational considerations

FLOOD INTELLIGENCE CARD – DANDENONG SOUTH GAUGE, EUMEMMERRING CREEK

Version 3 – April 2019



Note: flood intelligence records are approximations. This is because no two floods at a location, even if they peak at the same height, will have identical impacts. Flood intelligence cards detail the relationship between flood magnitude and flood consequences. More details about flood intelligence and its use can be found in the Australian Emergency Management Manuals flood series.

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LOCATION	Southeast side of Channel, 70m south of Abbots Road bridge, Dandenong South
MELWAY REFERENCE:	95 F8
STREAM:	Eumemmerring Creek
GAUGE NUMBER:	228203C
GAUGE ZERO:	7.496m AHD
GAUGE TYPE	Stream Level & Rain

MINOR:	Not Established
MODERATE:	Not Established
MAJOR	Not Established
LEEVE HEIGHT:	4.2m
TELEMETRIC/MANUAL	Telemetric
HIGHEST RECORDED FLOOD:	3.49m (5th February 2011)

Creek Height	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
3.49m	5 th February 2011 Flood Level Peak		
3.80m	1% AEP (100yr ARI) Flood Level	<p>Properties at Flood Risk 33 Properties in Total</p> <ul style="list-style-type: none"> 15, 15A, 17, Factories 1-2/19, 21, 23 & 25 Nicholas Drive, Dandenong South 45, 81, 83-95, 117, 189, 207, 208, 213, 221, 226 & 231 Bangholme Road, Bangholme 1-23, 2-14, 10X, 16-30, 25-29, 31-35, 32-44, 37-41, 43-55, 46-54, 55X, 56, 57-67 & 58-66 Letcon Drive, Bangholme <p>Essential Infrastructure Likely Impacted</p> <ul style="list-style-type: none"> Bus Route 857 along Bangholme Road and Worsley Road <p>Water Over Road</p> <ul style="list-style-type: none"> Letcon Drive, Bangholme Bangholme Road, Bangholme 	
4.20m		<ul style="list-style-type: none"> Approximate Levee Height at gauge location 	
4.80m		<ul style="list-style-type: none"> Approximate Levee Height at Big 4 Dandenong Tourist Park and Willow Lodge Mobile Home Retirement Village on Dandenong-Frankston Rd 	

Table C2.13 – Breakdown of likely consequences at various Dandenong South gauge level heights along Eumemmerring Creek with operational considerations

FLOOD INTELLIGENCE CARD – DANDENONG SOUTH AND GREENS LANE DRAINAGE SYSTEMS (UNGAUGED)

Version 1 – April 2019



Note: flood intelligence records are approximations. This is because no two floods at a location, even if they peak at the same height, will have identical impacts. Flood intelligence cards detail the relationship between flood magnitude and flood consequences. More details about flood intelligence and its use can be found in the Australian Emergency Management Manuals flood series.

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CLOSEST RAIN GAUGE	Eumemmerring Creek at Abbots Road, Dandenong South
LOCATION	Southeast side of Channel, 70m south of Abbots Road bridge, Dandenong South
MELWAY REF:	95 F8

GAUGE NUMBER	288203C
GAUGE TYPE	Rain
TELEMETRIC/MANUAL	Telemetric

Design Rainfall Depths (mm) – Indication of Possible Flooding	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
23mm in 10 mins; 38mm in 30 mins; 46mm in 1 hour; 55mm in 2 hours; 60mm in 3 hours; or 74mm in 6 hours Note: rainfall depths are a very rough method of estimating flood events and have been used due to the ungauged nature of the catchment. This should be used as a guide only.	1% AEP (100 year ARI)	<ul style="list-style-type: none"> Note: It is not known at what level infrastructure contained below starts being flooded Properties at Flood Risk 78 Properties in Total <ul style="list-style-type: none"> Dandenong South Drainage System <ul style="list-style-type: none"> 46 Brooks Drive, Dandenong South 7-9, 10, 11, 12-14, 13 & 16 Cahill Street, Dandenong South 41-51, 46-48, 46-52, 54-56 & 57-59 Elliott Road, Dandenong South 137 & 139-145 Greens Road, Dandenong South 1B/314-316, 1A/314-316, 2/314-316, 3/314-316, 4/314-316, 318-320, 322-324, 326-328, 401-407 & Factories 1-3/409-411 Hammond Road, Dandenong South 31 & 33 Marni Street, Dandenong South 15-17 Quality Drive, Dandenong South 6, 7, 8, 9, 10, 11, 12, 13-17, 14, 14, 1/14, 2/14, 19 & 21-23 Red Gum Drive, Dandenong South 33 Tatterson Road, Dandenong South 9-13, 15-19, 21-23 & 25 Zilla Court, Dandenong South Greens Lane Drainage System <ul style="list-style-type: none"> 6-8, 1-2/10-36, 3/10-36 & 4/10-36 Abbots Road, Dandenong South 2 & 4 Advantage Drive, Dandenong South 15-17 Capital Drive, Dandenong South 127-139 & 269-271 Frankston-Dandenong Road, Dandenong South 35, 51-95, 60-64, 1/66, 2/66, 68-70, 72-74 & 97 Greens Road, Dandenong South 	

Design Rainfall Depths (mm) – Indication of Possible Flooding	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		<ul style="list-style-type: none"> • 10-12 Johnston Court, Dandenong South • 4, 6, 8, 10, 12, 14 & 16-18 Maxwell Street, Dandenong South • 92-96 & 98-100 Williams Road, Dandenong South • 65 & 1/75 Zenith Road, Dandenong South • Rodds Drain • 2 Portlink Drive, Dandenong South <p>Essential Infrastructure Likely Impacted</p> <ul style="list-style-type: none"> • Bus Route 890 along Greens Road, Dandenong South • Bus Route 901 along Frankston – Dandenong Road, Dandenong South <p>Water Over Road</p> <p>Dandenong South Drainage System</p> <ul style="list-style-type: none"> • Cahill Street, Dandenong South • Elliott Road, Dandenong South • Marni Street, Dandenong South • Redgum Drive, Dandenong South <p>Greens Lane Drainage System</p> <ul style="list-style-type: none"> • Abbots Road, Dandenong South • Advantage Drive, Dandenong South • Captial Drive, Dandenong South • Greens Road, Dandenong South between Frankston – Dandenong Road and South Gippsland Highway • Johnston Court, Dandenong South • Maxwell Street, Dandenong South • Williams Road, Dandenong South • Zenith Road, Dandenong South 	

Table C1.14 – Breakdown of possible flash flood consequences at various rainfall intensities in Dandenong South with operational considerations

FLOOD INTELLIGENCE CARD – RODDS DRAIN, LYNDHURST (UNGAUGED)

Version 1 – April 2019



Note: flood intelligence records are approximations. This is because no two floods at a location, even if they peak at the same height, will have identical impacts. Flood intelligence cards detail the relationship between flood magnitude and flood consequences. More details about flood intelligence and its use can be found in the Australian Emergency Management Manuals flood series.

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CLOSEST RAIN GAUGE	Eastern Contour Drain at Glasscocks Road, Lyndhurst
LOCATION	West side of the channel, 120m north of Glasscocks Road, Dandenong South
MELWAY REF:	128 E3

GAUGE NUMBER	228233A
GAUGE TYPE	Rain
TELEMETRIC/MANUAL	Telemetric

Design Rainfall Depths (mm) – <i>Indication of Possible Flooding</i>	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
23mm in 10 mins; 38mm in 30 mins; 46mm in 1 hour; 55mm in 2 hours; 60mm in 3 hours; or 74mm in 6 hours Note: rainfall depths are a very rough method of estimating flood events and have been used due to the ungagged nature of the catchment. This should be used as a guide only.	1% AEP (100 year ARI)	<ul style="list-style-type: none"> Note: It is not known at what level infrastructure contained below starts being flooded Properties at Flood Risk 1 Properties in Total <ul style="list-style-type: none"> 2 Portlink Drive, Dandenong South Water Over Road <ul style="list-style-type: none"> Portlink Drive, Dandenong South 	

Table C1.15 – Breakdown of possible consequences at various rainfall intensities around the Rodds Drain in Dandenong South and Lyndhurst with operational considerations

APPENDIX C3 – MILE & YARRAMAN CREEKS FLOOD EMERGENCY PLAN

Overview of Flooding Consequences

This Summary table is generated from Victorian Government data. The State of Victoria does not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for error, loss or damage which may arise from reliance upon it. All persons access this information should make appropriate enquiries to assess the currency of the data.

Summary of Consequences in a 1% AEP (100yr ARI) flood along Mile and Yarraman Creeks

Property					
Properties	277				
Residential	202				
Commercial	30				
Industrial	39				
Public Land	6				
Rural	0				
Community Infrastructure					
Health Facilities	0		Child Care / Kindergartens	0	
Care Facilities	0		Community Venues	0	
Retirement Villages	0		Places of Worship	0	
Schools / Colleges	0		Prisons	0	
Essential Infrastructure					
Major Roads	7	Centre Rd; Chandler Rd; Cheltenham Rd; Elonera Rd; Jacksons Rd; Police Rd; & Princes Hwy	Police Stations	0	
Major Rail	0		Government Buildings	0	
Bus Routes	5	631, 800, 814, 828 & 978	Sewerage Facilities	2	Pumping Stations
Power Facility	1	SP AusNet Springvale	Levees	0	
Comms Services	0		Drainage Facilities	4	2 Retarding Basins; & 2 Pumping Stations
Emergency Services	0		Airports / Airfields	0	
Tourism / Recreation					
Sports Facilities	2	Sandown Racecourse & Motor Raceway; Springvale Athletics Centre	Caravan Parks	0	
Recreation Facilities	3	Greaves Reserve; Oakwood Park; & Warner Reserve	Camping Grounds	0	
Government Boundaries					
Local Gov't Areas	1	Greater Dandenong	CMA	1	Port Phillip & Westernport
Adjacent LGAs	1	Monash	CFA District	1	District 08
SES Unit Area	1	Greater Dandenong	MFB District	1	Eastern

Table C3.1 – Consequence Summary of 1% AEP flood along Mile and Yarraman Creeks

Mile Creek and Yarraman Creek and the surrounding suburbs of Springvale, Noble Park North, & Noble Park are located between 20-28km southeast of Melbourne in a mixed residential and industrial area. Mile Creek is the prominent watercourse in the area, flowing from the north in the City of Monash and flowing south to connect with Dandenong Creek in Dandenong. Yarraman creek is one of a number of tributaries that join Mile Creek which also flows north to south, discharging into Mile Creek at Greaves Reserve in Dandenong.

High Intensity, short duration rainfall events are the primary concern for the catchment. Apart from the number of residential properties, factories and roads at risk from flooding, the SP AusNnet Terminal Station in Springvale is also at risk during a 1% AEP Event. See mapping in **Appendix F** for more insight into flooding in the area.

Warning Times

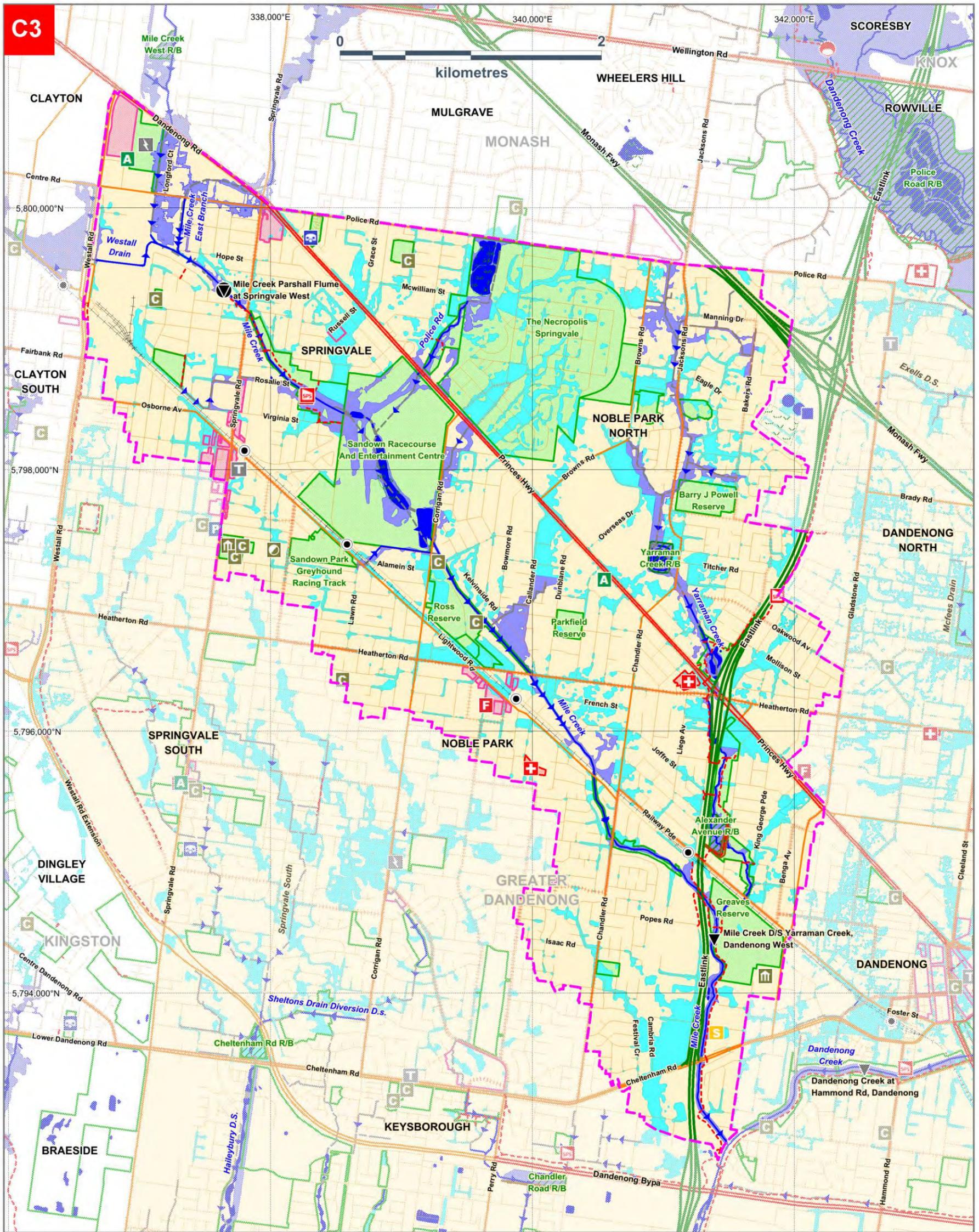
Neither the Bureau of Meteorology nor Melbourne Water currently provides flood forecasts for Mile or Yarraman Creeks. All flood response actions must therefore be driven by rainfall and / or river level observations. Telemetered water level / flood gauges are located at Springvale and Dandenong within the Mile Creek catchment. See Appendix B for typical flood travel times for Mile Creek.

Melbourne Water Hydrographic Monitoring Station	Station No.	Location	Stream Level & Flow Gauge	Rain Gauge	Melway Reference
Mile Creek at Parshall Flume, Springvale West	228362A	West Side of Channel at end of Oakdale Court, Springvale	✓	✓	79K6
Mile Creek downstream of Yarraman Creek, Dandenong West	228210C	East side of the creek in Greaves Reserve, next to Netball Complex, Dandenong	✓		89K6

Table C3.2 – Hydrographic Monitoring Stations within the Mile Creek catchment

These Gauges may provide some warning of expected flooding. See the Melbourne Water website for more information on these gauges: <http://www.melbournewater.com.au/waterdata/rainfallandriverleveldata/Pages/Rainfall-and-river-level-new.aspx>. It is advised that residents monitor the Bureau of Meteorology's website <http://www.bom.gov.au/> and the VicEmergency website <https://emergency.vic.gov.au/> for any thunderstorm, flood or severe weather warnings present for their area.

Areas of Flood Risk



Map Produced by VICSES March 2019

CITY OF GREATER DANDENONG

Version 3. March 2019

C3. Areas of flood risk along the Mile and Yarraman Creeks

- | | | | |
|---------------------------------|----------------------------------|------------------------|--------------|
| Waterbody | Bus Route (PTV) | Telephone Exchange | Hospital |
| 1% AEP Riverine Flood Extent | Embankment | Police Station | Caravan Park |
| 1% AEP Flash Flood Extent | Levee | Community Centre | Caravan Park |
| Reserve / Park | Boundary for this Appendix | Power Terminal Station | |
| Commercial Precinct | Melbourne Water Stormwater Drain | Rain Gauge | |
| Melbourne Water Retarding Basin | River / Creek | Stream Level Gauge | |
| Natural Wetland | Bicycle / Walking Trail | Municipal Offices | |
| State Emergency Service | Sewer Emergency Relief Point | Municipal Depot | |
| Ambulance Station | Fire Station | | |
| | Sewer Pumping Station | | |



SES VICTORIA **Melbourne Water**

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Figure C3 – Areas of flood risk around Mile and Yarraman Creeks in the City of Greater Dandenong
Greater Dandenong Flood Emergency Plan – A Sub-Plan of the MEMPlan V3.0 April 2019

Properties at Flood Risk

Properties listed in the table below are at risk from flooding within the Mile Creek and Yarraman Creek catchments. As more intelligence becomes available, this list may change. This table has been populated based on modelling work as part of the Mile Creek (BMT WBM, March 2014) flood mapping and risk assessment program. Note that any multi-lot properties situated above ground floor likely impacted by isolation only with flooding on ground floor impacting access to common areas and/or carpark and storage facilities. Information on above ground-floor properties is not available in this list.

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Properties at risk from Flooding along Mile and Yarraman Creeks during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use
Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
10	Barbara Avenue	Dandenong North	Yarraman Creek	Flash
12	Barbara Avenue	Dandenong North	Yarraman Creek	Flash
14	Barbara Avenue	Dandenong North	Yarraman Creek	Flash
15	Barbara Avenue	Dandenong North	Yarraman Creek	Flash
16	Barbara Avenue	Dandenong North	Yarraman Creek	Flash
17	Barbara Avenue	Dandenong North	Yarraman Creek	Flash
18	Barbara Avenue	Dandenong North	Yarraman Creek	Flash
19	Barbara Avenue	Dandenong North	Yarraman Creek	Flash
2/21	Barbara Avenue	Dandenong North	Yarraman Creek	Flash
2	Bird Street	Springvale	Mile Creek	Flash
4	Bird Street	Springvale	Mile Creek	Flash
1/6-8	Bird Street	Springvale	Mile Creek	Flash
2/6-8	Bird Street	Springvale	Mile Creek	Flash
3/6-8	Bird Street	Springvale	Mile Creek	Flash
4/6-8	Bird Street	Springvale	Mile Creek	Flash
12	Birmingham Street	Springvale	Mile Creek	Flash
44	Birmingham Street	Springvale	Mile Creek	Flash
46	Birmingham Street	Springvale	Mile Creek	Flash
48	Birmingham Street	Springvale	Mile Creek	Flash
6	Bridge Road	Keysborough	Mile Creek	Flash
30	Cambria Road	Keysborough	Mile Creek	Flash
1/32	Cambria Road	Keysborough	Mile Creek	Flash
2/32	Cambria Road	Keysborough	Mile Creek	Flash
3/32	Cambria Road	Keysborough	Mile Creek	Flash
34	Cambria Road	Keysborough	Mile Creek	Flash
10	Carlyon Court	Springvale	Mile Creek	Flash
1612-1624	Centre Road	Springvale	Mile Creek	Flash
1626-1638	Centre Road	Springvale	Mile Creek	Flash
1648	Centre Road	Springvale	Mile Creek	Flash
1654	Centre Road	Springvale	Mile Creek	Flash
1656	Centre Road	Springvale	Mile Creek	Flash

Properties at risk from Flooding along Mile and Yarraman Creeks during a 1% AEP event

Residential	Commercial	Industrial	Rural	Public Use
Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
1661	Centre Road	Springvale	Mile Creek	Flash
1663-1665	Centre Road	Springvale	Mile Creek	Flash
1674-1676	Centre Road	Springvale	Mile Creek	Flash
1675-1693	Centre Road	Springvale	Mile Creek	Flash
1678	Centre Road	Springvale	Mile Creek	Flash
194-198	Cheltenham Road	Keysborough	Mile Creek	Flash
18	Clive Street	Springvale	Mile Creek	Flash
6	Coolavin Road	Noble Park North	Yarraman Creek	Flash
8	Coolavin Road	Noble Park North	Yarraman Creek	Flash
10	Coolavin Road	Noble Park North	Yarraman Creek	Flash
12	Coolavin Road	Noble Park North	Yarraman Creek	Flash
14	Coolavin Road	Noble Park North	Yarraman Creek	Flash
16	Coolavin Road	Noble Park North	Yarraman Creek	Flash
18	Coolavin Road	Noble Park North	Yarraman Creek	Flash
52	Corrigan Road	Noble Park	Mile Creek	Flash
69	Corrigan Road	Noble Park	Mile Creek	Flash
71	Corrigan Road	Noble Park	Mile Creek	Flash
73	Corrigan Road	Noble Park	Mile Creek	Flash
75	Corrigan Road	Noble Park	Mile Creek	Flash
77	Corrigan Road	Noble Park	Mile Creek	Flash
79	Corrigan Road	Noble Park	Mile Creek	Flash
1/81	Corrigan Road	Noble Park	Mile Creek	Flash
2/81	Corrigan Road	Noble Park	Mile Creek	Flash
2/87	Corrigan Road	Noble Park	Mile Creek	Flash
23	Douglas Street	Noble Park	Mile Creek	Flash
24	Douglas Street	Noble Park	Mile Creek	Flash
24A	Douglas Street	Noble Park	Mile Creek	Flash
25	Douglas Street	Noble Park	Mile Creek	Flash
25A	Douglas Street	Noble Park	Mile Creek	Flash
26	Douglas Street	Noble Park	Mile Creek	Flash
26A	Douglas Street	Noble Park	Mile Creek	Flash
27	Douglas Street	Noble Park	Mile Creek	Flash
27A	Douglas Street	Noble Park	Mile Creek	Flash
28	Douglas Street	Noble Park	Mile Creek	Flash
28A	Douglas Street	Noble Park	Mile Creek	Flash
29	Douglas Street	Noble Park	Mile Creek	Flash
29A	Douglas Street	Noble Park	Mile Creek	Flash
30	Douglas Street	Noble Park	Mile Creek	Flash
30A	Douglas Street	Noble Park	Mile Creek	Flash
1/31-32	Douglas Street	Noble Park	Mile Creek	Flash
2/31-32	Douglas Street	Noble Park	Mile Creek	Flash
31A	Douglas Street	Noble Park	Mile Creek	Flash
33	Douglas Street	Noble Park	Mile Creek	Flash
34	Douglas Street	Noble Park	Mile Creek	Flash

Properties at risk from Flooding along Mile and Yarraman Creeks during a 1% AEP event

Properties at risk from Flooding along Mile and Yarraman Creeks during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use
Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
35-36	Douglas Street	Noble Park	Mile Creek	Flash
35A-39A	Douglas Street	Noble Park	Mile Creek	Flash
37-38	Douglas Street	Noble Park	Mile Creek	Flash
2	Ebden Street	Noble Park North	Yarraman Creek	Flash
4	Ebden Street	Noble Park North	Yarraman Creek	Flash
6	Ebden Street	Noble Park North	Yarraman Creek	Flash
8	Ebden Street	Noble Park North	Yarraman Creek	Flash
10	Ebden Street	Noble Park North	Yarraman Creek	Flash
39	Elonera Road	Noble Park North	Yarraman Creek	Flash
41	Elonera Road	Noble Park North	Yarraman Creek	Flash
43	Elonera Road	Noble Park North	Yarraman Creek	Flash
1/44	Elonera Road	Noble Park North	Yarraman Creek	Flash
2/44	Elonera Road	Noble Park North	Yarraman Creek	Flash
45	Elonera Road	Noble Park North	Yarraman Creek	Flash
1/46	Elonera Road	Noble Park North	Yarraman Creek	Flash
2/46	Elonera Road	Noble Park North	Yarraman Creek	Flash
1	Facey Court	Noble Park North	Yarraman Creek	Flash
2	Facey Court	Noble Park North	Yarraman Creek	Flash
3	Facey Court	Noble Park North	Yarraman Creek	Flash
4	Facey Court	Noble Park North	Yarraman Creek	Flash
5	Facey Court	Noble Park North	Yarraman Creek	Flash
33	Festival Crescent	Keysborough	Mile Creek	Flash
35	Festival Crescent	Keysborough	Mile Creek	Flash
37	Festival Crescent	Keysborough	Mile Creek	Flash
29	Flynn Street	Springvale	Mile Creek	Flash
1	Ford Court	Noble Park North	Yarraman Creek	Flash
2	Ford Court	Noble Park North	Yarraman Creek	Flash
3	Ford Court	Noble Park North	Yarraman Creek	Flash
4	Ford Court	Noble Park North	Yarraman Creek	Flash
2-36	Furnew Street	Springvale	Mile Creek	Flash
29	Garnsworthy Street	Springvale	Mile Creek	Flash
31	Garnsworthy Street	Springvale	Mile Creek	Flash
68	Gove Street	Springvale	Mile Creek	Flash
1/70	Gove Street	Springvale	Mile Creek	Flash
2/70	Gove Street	Springvale	Mile Creek	Flash
3/72	Gove Street	Springvale	Mile Creek	Flash
2/9	Hodgkinson Court	Springvale	Mile Creek	Flash
20-30	Ian Street	Noble Park	Mile Creek	Flash
2	Ivan Court	Noble Park North	Yarraman Creek	Flash
3	Ivan Court	Noble Park North	Yarraman Creek	Flash
4	Ivan Court	Noble Park North	Yarraman Creek	Flash
33	Jacksons Road	Noble Park North	Yarraman Creek	Flash
35	Jacksons Road	Noble Park North	Yarraman Creek	Flash
36	Jacksons Road	Noble Park North	Yarraman Creek	Flash

Properties at risk from Flooding along Mile and Yarraman Creeks during a 1% AEP event

Properties at risk from Flooding along Mile and Yarraman Creeks during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use
Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
37	Jacksons Road	Noble Park North	Yarraman Creek	Flash
39	Jacksons Road	Noble Park North	Yarraman Creek	Flash
41	Jacksons Road	Noble Park North	Yarraman Creek	Flash
88	Jacksons Road	Noble Park North	Yarraman Creek	Flash
90	Jacksons Road	Noble Park North	Yarraman Creek	Flash
92	Jacksons Road	Noble Park North	Yarraman Creek	Flash
94	Jacksons Road	Noble Park North	Yarraman Creek	Flash
96	Jacksons Road	Noble Park North	Yarraman Creek	Flash
110	Jacksons Road	Noble Park North	Yarraman Creek	Flash
112	Jacksons Road	Noble Park North	Yarraman Creek	Flash
114	Jacksons Road	Noble Park North	Yarraman Creek	Flash
26	Jasper Street	Noble Park	Mile Creek	Flash
30	Jasper Street	Noble Park	Mile Creek	Flash
2/32	Jasper Street	Noble Park	Mile Creek	Flash
2/34	Jasper Street	Noble Park	Mile Creek	Flash
13	Joan Court	Noble Park North	Yarraman Creek	Flash
14	Joan Court	Noble Park North	Yarraman Creek	Flash
2	Joyce Street	Springvale	Mile Creek	Flash
4	Joyce Street	Springvale	Mile Creek	Flash
6	Joyce Street	Springvale	Mile Creek	Flash
8	Joyce Street	Springvale	Mile Creek	Flash
29	Justin Drive	Noble Park North	Yarraman Creek	Flash
7	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
9	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
11	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
12	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
13	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
14	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
16	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
18	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
20	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
20A	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
22	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
24	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
26	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
28	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
30	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
32	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
34	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
36	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
38	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
40	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
42	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
44	Kernot Crescent	Noble Park North	Yarraman Creek	Flash

Properties at risk from Flooding along Mile and Yarraman Creeks during a 1% AEP event

Properties at risk from Flooding along Mile and Yarraman Creeks during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use
Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
46	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
48	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
50	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
52	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
54	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
56	Kernot Crescent	Noble Park North	Yarraman Creek	Flash
82-86	Kirkham Road West	Keysborough	Mile Creek	Flash
1-5	Longford Court	Springvale	Mile Creek	Flash
7	Longford Court	Springvale	Mile Creek	Flash
9-15	Longford Court	Springvale	Mile Creek	Flash
10	Longford Court	Springvale	Mile Creek	Flash
12	Longford Court	Springvale	Mile Creek	Flash
17-19	Longford Court	Springvale	Mile Creek	Flash
18	Longford Court	Springvale	Mile Creek	Flash
21	Longford Court	Springvale	Mile Creek	Flash
6	Lume Court	Noble Park	Mile Creek	Flash
2/5	Marcella Avenue	Dandenong North	Yarraman Creek	Flash
7	Marcella Avenue	Dandenong North	Yarraman Creek	Flash
10	Marcella Avenue	Dandenong North	Yarraman Creek	Flash
20	Memorial Drive	Noble Park	Mile Creek	Flash
50	Mollison Street	Dandenong North	Yarraman Creek	Flash
52	Mollison Street	Dandenong North	Yarraman Creek	Flash
2	Morwell Parade	Springvale	Mile Creek	Flash
9	Morwell Parade	Springvale	Mile Creek	Flash
11-13	Morwell Parade	Springvale	Mile Creek	Flash
27	Newcomen Road	Springvale	Mile Creek	Flash
29	Newcomen Road	Springvale	Mile Creek	Flash
31	Newcomen Road	Springvale	Mile Creek	Flash
3	Noel Court	Noble Park North	Yarraman Creek	Flash
5	Noel Court	Noble Park North	Yarraman Creek	Flash
6	Noel Court	Noble Park North	Yarraman Creek	Flash
102	Oakwood Avenue	Noble Park North	Yarraman Creek	Flash
27-29	Overseas Drive	Noble Park	Yarraman Creek	Flash
31-33	Overseas Drive	Noble Park	Yarraman Creek	Flash
35-37	Overseas Drive	Noble Park	Yarraman Creek	Flash
39-41	Overseas Drive	Noble Park	Yarraman Creek	Flash
43-45	Overseas Drive	Noble Park	Yarraman Creek	Flash
47-49	Overseas Drive	Noble Park	Yarraman Creek	Flash
591-659	Princes Highway	Springvale	Mile Creek	Flash
1/719	Princes Highway	Springvale	Mile Creek	Flash
2/719	Princes Highway	Springvale	Mile Creek	Flash
3/719	Princes Highway	Springvale	Mile Creek	Flash
4/719	Princes Highway	Springvale	Mile Creek	Flash
841	Princes Highway	Springvale	Mile Creek	Flash

Properties at risk from Flooding along Mile and Yarraman Creeks during a 1% AEP event

Properties at risk from Flooding along Mile and Yarraman Creeks during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use
Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
841A	Princes Highway	Springvale	Mile Creek	Flash
843	Princes Highway	Springvale	Mile Creek	Flash
893-895	Princes Highway	Springvale	Mile Creek	Flash
897	Princes Highway	Springvale	Mile Creek	Flash
899-903	Princes Highway	Springvale	Mile Creek	Flash
905	Princes Highway	Springvale	Mile Creek	Flash
907	Princes Highway	Springvale	Mile Creek	Flash
907A	Princes Highway	Springvale	Mile Creek	Flash
1	Redington Drive	Noble Park	Yarraman Creek	Flash
2	Redington Drive	Noble Park	Yarraman Creek	Flash
3	Redington Drive	Noble Park	Yarraman Creek	Flash
4	Redington Drive	Noble Park	Yarraman Creek	Flash
5	Redington Drive	Noble Park	Yarraman Creek	Flash
6	Redington Drive	Noble Park	Yarraman Creek	Flash
7	Redington Drive	Noble Park	Yarraman Creek	Flash
8	Redington Drive	Noble Park	Yarraman Creek	Flash
10	Redington Drive	Noble Park	Yarraman Creek	Flash
12	Redington Drive	Noble Park	Yarraman Creek	Flash
9	Rosemont Court	Dandenong North	Yarraman Creek	Flash
12	Rosemont Court	Dandenong North	Yarraman Creek	Flash
1	Russell Street	Springvale	Mile Creek	Flash
1/4	Sandy Court	Dandenong North	Yarraman Creek	Flash
2/4	Sandy Court	Dandenong North	Yarraman Creek	Flash
6	Short Street	Springvale	Mile Creek	Flash
8	Short Street	Springvale	Mile Creek	Flash
8	Smale Court	Noble Park North	Yarraman Creek	Flash
9	Smale Court	Noble Park North	Yarraman Creek	Flash
10	Smale Court	Noble Park North	Yarraman Creek	Flash
11	Smale Court	Noble Park North	Yarraman Creek	Flash
23	Smith Road	Springvale	Mile Creek	Flash
2/24	Sullivan Street	Springvale	Mile Creek	Flash
12	Sunline Avenue	Noble Park	Yarraman Creek	Flash
14	Sunline Avenue	Noble Park	Yarraman Creek	Flash
1/15	Sunline Avenue	Noble Park	Yarraman Creek	Flash
2/15	Sunline Avenue	Noble Park	Yarraman Creek	Flash
3/15	Sunline Avenue	Noble Park	Yarraman Creek	Flash
16	Sunline Avenue	Noble Park	Yarraman Creek	Flash
26	Templewood Avenue	Noble Park	Yarraman Creek	Flash
28	Templewood Avenue	Noble Park	Yarraman Creek	Flash
30	Templewood Avenue	Noble Park	Yarraman Creek	Flash
32	Templewood Avenue	Noble Park	Yarraman Creek	Flash
33	Templewood Avenue	Noble Park	Yarraman Creek	Flash
35	Templewood Avenue	Noble Park	Yarraman Creek	Flash
8	Terrigal Drive	Noble Park North	Yarraman Creek	Flash

Properties at risk from Flooding along Mile and Yarraman Creeks during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use
Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
10	Terrigal Drive	Noble Park North	Yarraman Creek	Flash
3	Titcher Road	Noble Park North	Yarraman Creek	Flash
4	Titcher Road	Noble Park North	Yarraman Creek	Flash
6	Titcher Road	Noble Park North	Yarraman Creek	Flash
7	Titcher Road	Noble Park North	Yarraman Creek	Flash
9	Titcher Road	Noble Park North	Yarraman Creek	Flash
11	Titcher Road	Noble Park North	Yarraman Creek	Flash
13	Titcher Road	Noble Park North	Yarraman Creek	Flash
15	Titcher Road	Noble Park North	Yarraman Creek	Flash
17	Titcher Road	Noble Park North	Yarraman Creek	Flash
1	Tillbrook Court	Noble Park North	Yarraman Creek	Flash
41	Timberglade Drive	Noble Park	Yarraman Creek	Flash
43	Timberglade Drive	Noble Park	Yarraman Creek	Flash
45	Timberglade Drive	Noble Park	Yarraman Creek	Flash
6	Tudor Crescent	Noble Park North	Yarraman Creek	Flash
8	Tudor Crescent	Noble Park North	Yarraman Creek	Flash
14	Tudor Crescent	Noble Park North	Yarraman Creek	Flash
16	Tudor Crescent	Noble Park North	Yarraman Creek	Flash
88	Virginia Street	Springvale	Mile Creek	Flash
13	Watson Road	Noble Park North	Yarraman Creek	Flash
15	Watson Road	Noble Park North	Yarraman Creek	Flash
11	Wincanton Court	Noble Park North	Yarraman Creek	Flash
12	Wincanton Court	Noble Park North	Yarraman Creek	Flash
14	Wincanton Court	Noble Park North	Yarraman Creek	Flash
16	Wincanton Court	Noble Park North	Yarraman Creek	Flash
Total				
277				

Table C3.3 – Properties at risk of flooding along the Mile Creek catchment in the City of Greater Dandenong

Isolation

No major isolation risks exist for Springvale, Noble Park & Noble Park North around Mile Creek & Yarraman Creek during a 1% AEP (100yr ARI) event. Some localised short-duration isolation may occur due to flash flooding.

Essential Infrastructure

- The SP AusNet Springvale Terminal Station on Princes Hwy, Springvale may experience flooding along its eastern boundary during a 1% AEP event.

During an event, see the Public Transport Victoria's Website for details on delays or alterations to services. <http://ptv.vic.gov.au/live-travel-updates/>. A map of Public Transport routes within the City of Greater Dandenong is available via the website at: https://static.ptv.vic.gov.au/siteassets/Maps/Localities/PDFs/18_Greater_Dandenong_LAM.pdf

Apart from the roads outlined below, all other essential infrastructure and services areas around Springvale, Noble Park & Noble Park North are expected to remain unaffected by flooding during a 1% AEP (100yr ARI) event.

Road Closures

The following roads are subject to closure during flooding around Springvale, Noble Park & Noble Park North. Check the VicRoads website for more details: <https://traffic.vicroads.vic.gov.au/>

VicRoads Roads flooded in a 1% AEP (100yr ARI) event
• Centre Road, Springvale, west of Springvale Road
• Chandler Road, Noble Park near Yarraman Road
• Cheltenham Road, Keysborough at Cambria Road
• Elonera Road, Noble Park North near Oakwood Avenue
• Jacksons Road, Noble Park North near Silverton Drive
• Police Road, Springvale at Southern Reserve
• Princes Highway, Springvale at two low points between Westall Road and Springvale Road
• Princes Highway and Heatherston Road Intersection underneath Eastlink Overpass

Table C3.4 – VicRoads Possible Road Closures during a flooding event

Greater Dandenong City Council Roads flooded in a 1% AEP (100yr ARI) event			
KEYSBOROUGH	• Memorial Drive	• Templewood Avenue	• Joyce Street
• Bridge Road	• Roberts Street	• Terrigal Drive	• Longford Court
• Nance Street	NOBLE PARK NORTH	• Timberglade Drive	• Oakdale Court
• Springside Crescent	• Elanora Road	• Whitehaven Crescent	• Morwell Parade
• Thurbro Drive	• Facey Court	• Wincanton Court	• Newcomen Road
NOBLE PARK	• Ivan Court	SPRINGVALE	• Oak Grove
• Arnold Street	• Kernot Crescent	• Bird Street	• Queens Avenue
• Corrigan Road	• Millison Street	• Birmingham Street	• Rosalie Street
• Douglas Street	• Noel Court	• Burden Street	• Short Street
• Ian Street	• Oakwood Avenue	• Clive Street	DANDENONG NORTH
• Lightwood Road	• Omeo Street	• Davey Court	• Barbara Avenue
• Llewellyn Court	• Redington Drive	• Furnew Street	• Sandy Court
• Maxwell Court	• Sunline Avenue	• Grove Street	

Table C3.5 – Greater Dandenong City Council Possible Road Closures during a flooding event

Flood Mitigation

Retarding Basins

Melbourne Water Retarding Basin	On Drain/ Waterway	Area	Storage Capacity	Spillway Crest Level	Full Supply Level	Embankment Crest Level	ANCOLD Hazard Rating	Houses In Flow Path (dam breach)	Melway Reference
Alexander Ave	Yarraman Creek	3.2 ha	37 ML	31.7mAHD	32.1mAHD	3.3m (32.5mAHD)	Very Low	0	89K4
Yarraman Creek	Yarraman Creek	3.8 ha	56.0 ML	45.1mAHD	45.4mAHD	3.0m	Significant	Unavailable	80J11

Table C3.6 – Melbourne Water Retarding Basins within the Mile Creek catchment in the City of Greater Dandenong

Pumping Stations

Greater Dandenong City Council Pumping Station	Suburb	Melway Reference
Douglas Street / Mons Parade Pedestrian Underpass	Noble Park	89 G3
Springvale Pedestrian Underpass	Springvale	80 C11

Table C3.7 – Greater Dandenong City Pumping Stations along Mile & Yarraman Creeks

Sewerage Infrastructure

Sewerage Infrastructure of note during a severe flood event located within the Mile Creek and Yarraman Creek catchments is contained within the following table.

Sewer Pumping Stations

Sewerage Pumping Station	On Drain / Waterway	Bank / Side of Waterway	Operator	Location	Melway Reference
Morwell Pde	Mile Creek	South	South East Water	11-13 Morwell Pde, Springvale	80 B8
Pinewood Avenue	Local Drainage	-	South East Water	62 Laemmle Street, Dandenong North	81 A12

Table C3.8 – Sewer Pumping Stations within the Mile and Yarraman Creek Catchments in the City of Greater Dandenong

Command, Control and Coordination

VICSES will assume overall control of the response to flood incidents. Other agencies will be requested to support operations as detailed in this Plan. Control and coordination of a flood incident shall be carried out at the lowest effective level and in accordance with the State Emergency Response Plan (EMMV Part 3). During significant events, VICSES will conduct incident management using multi-agency resources.

Flood Impacts & Operational Considerations (Intelligence Cards)

The tables on the following pages provide a breakdown of the possible consequences of flooding along Mile Creek and Yarraman Creek at various creek heights or rain totals within Greater Dandenong. These tables are to be used only as a guide as no two floods at a location will have identical impacts.

Intelligence Cards have been included for the following locations:

- Mile Creek, Springvale West
- Mile Creek, Dandenong West

FLOOD INTELLIGENCE CARD – SPRINGVALE WEST GAUGE, MILE CREEK

Version 3 – April 2019



Note: flood intelligence records are approximations. This is because no two floods at a location, even if they peak at the same height, will have identical impacts. Flood intelligence cards detail the relationship between flood magnitude and flood consequences. More details about flood intelligence and its use can be found in the Australian Emergency Management Manuals flood series.

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LOCATION	West Side of Channel at end of Oakdale Court, Springvale
MELWAY REFERENCE:	79 K6
STREAM:	Mile Creek
GAUGE NUMBER:	228362A
GAUGE ZERO:	45.47m AHD
GAUGE TYPE	Stream Level & Rain

MINOR:	Not Established
MODERATE:	Not Established
MAJOR	Not Established
LEVEE HEIGHT:	N/A
TELEMETRIC/MANUAL	Telemetric
HIGHEST RECORDED FLOOD:	2.46m (1st June 2013)

Creek Height	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
2.32m	20% AEP (5yr ARI) Flood Level	Properties at Flood Risk 1 Properties in Total <ul style="list-style-type: none"> 899-903 Princes Highway, Springvale Water Over Road (over 300mm depth) <ul style="list-style-type: none"> Newcomen Road, Springvale Bird Street, Springvale Racecourse Drive, Sandown Police Road, Springvale at Southern Reserve Princes Highway, Noble Park North southeast bound lane near Browns Road 	
2.46m	1 st June 2013 Flood Level Peak		
3.14m	1% AEP (100yr ARI) Flood Level	Properties at Flood Risk 80 Properties in Total <ul style="list-style-type: none"> 591-659, Units 1-4/719, 841, 841A, 843, 893-895, 897, 899-903, 905, 907 & 907A Princes Highway, Springvale 1-5, 7, 9-15, 10, 12, 17-19, 18 & 21 Longford Court, Springvale 1612-1624, 1626-1638, 1648, 1654, 1656, 1661, 1663-1665, 1674-1676, 1675-1693 & 1678 Centre Road, Springvale 	

Creek Height	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		<ul style="list-style-type: none"> • 18 Clive Street, Springvale • 2, 4, 6 & 8 Joyce Street, Springvale • 27, 29 & 31 Newcomen Road, Springvale • 2, 9 & 11-13 Morwell Parade, Springvale • 29 Flynn Street, Springvale • 6 & 8 Short Street, Springvale • 2/24 Sullivan Street, Springvale • 2-36 Furnew Street, Springvale • 2, 4, Factories 1-4/6-8 Bird Street, Springvale • 88 Virginia Street, Springvale • 1 Russell Street, Springvale • 29 & 31 Garnsworthy Street, Springvale • 68, 1/70, 2/70, 3/72 Gove Street, Springvale • 12, 44, 46 & 48 Birmingham Street, Springvale • 2/9 Hodgkinson Court, Springvale • 10 Carlyon Court, Springvale • 23 Smith Road, Springvale • 52, 69, 71, 73, 75, 77, 79, 1/81, 2/81 & 2/87 Corrigan Road, Noble Park • 20 Memorial Drive, Noble Park <p>Community Infrastructure Flooded</p> <ul style="list-style-type: none"> • Sandown Racecourse and Motor Raceway likely flooded on Motor Racetrack and Pit Complex • Warner Reserve on Virginia and Flynn Streets, Springvale • Springvale Athletics Centre on Corrigan Road, Noble Park <p>Essential Infrastructure Impacted</p> <ul style="list-style-type: none"> • The SP AusNet Springvale Terminal Station on Princes Hwy, Springvale likely flooded along eastern boundary. • Bus Routes 631, 800 & 978 on Princes Highway, Springvale <p>Water Over Road (over 300mm depth)</p> <ul style="list-style-type: none"> • Princes Highway, Springvale at two low points between Westall Road and Springvale Road • Longford Court, Springvale • Centre Road, Springvale, west of Springvale Road • Clive Street, Springvale • Lewis Street, Springvale • Oakdale Court, Springvale • Whitworth Avenue, Springvale near Burden Street • Burden Street, Springvale near Whitworth Avenue and Stephenson Street • Newcomen Road, Springvale • Queens Avenue, Springvale between Osborne Avenue and Springvale Road • St Johns Avenue, Springvale • Oak Grove, Springvale 	

Creek Height	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		<ul style="list-style-type: none"> • Furnew Street, Springvale near Tennis Courts • Gove Street, Springvale at Fairbairn Street • Birmingham Street, Springvale at Davidson Street • Rosalie Street, Springvale • Morwell Parade, Springvale • Short Street, Springvale • Bird Street, Springvale • Racecourse Drive, Sandown • Police Road, Springvale at Southern Reserve • Corrigan Road, Noble Park, at the Athletics Track • Princes Highway, Noble Park North southeast bound lane near Browns Road 	
5.0m	Bank Full Level	<ul style="list-style-type: none"> • Concrete Channel at Gauging Location is full 	

Table C3.9 – Breakdown of likely consequences at various creek gauge level heights within the Mile Creek catchment in Greater Dandenong with operational considerations

FLOOD INTELLIGENCE CARD – DANDENONG WEST GAUGE, MILE CREEK

Version 3 – April 2019



Note: flood intelligence records are approximations. This is because no two floods at a location, even if they peak at the same height, will have identical impacts. Flood intelligence cards detail the relationship between flood magnitude and flood consequences. More details about flood intelligence and its use can be found in the Australian Emergency Management Manuals flood series.

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LOCATION	East side of the creek in Greaves Reserve, next to Netball Complex, Dandenong
MELWAY REFERENCE:	89 K6
STREAM:	Mile Creek, downstream of Yarraman Creek
GAUGE NUMBER:	228210C
GAUGE ZERO:	17.67m AHD
GAUGE TYPE	Stream Level

MINOR:	Not Established
MODERATE:	Not Established
MAJOR	Not Established
LEVEE HEIGHT:	N/A
TELEMETRIC/MANUAL	Telemetric
HIGHEST RECORDED FLOOD:	4.86m (4th February 2011)

Creek Height	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
3.93m	20% AEP (5yr ARI) Flood Level	<p>Properties at Flood Risk</p> <p>8 Properties in Total</p> <p>Mile Creek</p> <ul style="list-style-type: none"> 6 Bridge Road, Keysborough 82-86 Kirkham Road West, Keysborough <p>Yarraman Creek</p> <ul style="list-style-type: none"> 22, 24 & 26 Kernot Crescent, Noble Park North 12, 14 & 16 Barbara Avenue, Dandenong North <p>Water Over Road (over 300mm depth)</p> <p>Mile Creek</p> <ul style="list-style-type: none"> Thurbro Drive, Keysborough Cambria Road, Keysborough Bridge Road, Keysborough <p>Yarraman Creek</p> <ul style="list-style-type: none"> Jacksons Road, Noble Park North between Eagle Drive & Silverton Drive Timberglade Drive, Noble Park North Kernot Crescent, Noble Park North Elonera Road, Noble Park North near Oakwood Avenue 	

Creek Height	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
4.79m	1% AEP (100yr ARI) Flood Level	<p>Properties at Flood Risk</p> <p>195 Properties in Total</p> <ul style="list-style-type: none"> • Mile Creek • 26, 30, 2/32 & 2/34 Jasper Street, Noble Park • 23, 24, 24A, 25, 25A, 26, 26A, 27, 27A, 28, 28A, 29, 29A, 30, 30A, 1/31-32, 2/31-32, 31A, 33, 34, 35-36, 35A-39A & 37-38 Douglas Street, Noble Park • 20-30 Ian Street, Noble Park • 6 Lume Court, Noble Park • 33, 35 & 37 Festival Crescent, Keysborough • 30, Factories 1-3/32 & 34 Cambria Road, Keysborough • 6 Bridge Road, Keysborough • 194-198 Cheltenham Road, Keysborough • 82-86 Kirkham Road West, Keysborough • Yarraman Creek • 11, 12, 14 & 16 Wincanton Court, Noble Park North • 8 & 10 Terrigal Drive, Noble Park North • 3, 5 & 6 Noel Court, Noble Park North • 2, 3 & 4 Ivan Court, Noble Park North • 13 & 15 Watson Road, Noble Park North • 33, 35, 36, 37, 39, 41, 88, 90, 92, 94, 96, 110, 112 & 114 Jacksons Road, Noble Park North • 1 Tillbrook Court, Noble Park North • 29 Justin Drive, Noble Park North • 1, 2, 3, 4, 5, 6, 7, 8, 10 & 12 Redington Drive, Noble Park • 26, 28, 30, 32, 33 & 35 Templewood Avenue, Noble Park • 1, 2, 3, 4 & 5 Facey Court, Noble Park North • 1, 2, 3 & 4 Ford Court, Noble Park North • 41, 43 & 45 Timberglade Drive, Noble Park • 27-29, 31-33, 35-37, 39-41, 43-45 & 47-49 Overseas Drive, Noble Park • 7, 9, 11, 12, 13, 14, 16, 18, 20, 20A, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54 & 56 Kernot Crescent, Noble Park North • 6, 8, 10, 12, 14, 16 & 18 Coolavin Road, Noble Park North • 3, 4, 6, 7, 9, 11, 13, 15 & 17 Titcher Road, Noble Park North • 39, 41, 43, Units 1-2/44, 45, Units 1-2/46 Elonera Road, Noble Park North • 2, 4, 6, 8 & 10 Ebdon Street, Noble Park North • 102 Oakwood Avenue, Noble Park North • 6, 8, 14 & 16 Tudor Crescent, Noble Park North • 8, 9, 10 & 11 Smale Court, Noble Park North • 12, 14, Units 1-3/15 & 16 Sunline Avenue, Noble Park • 13 & 14 Joan Court, Noble Park North 	

Creek Height	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		<ul style="list-style-type: none"> • 1/4 & 2/4 Sandy Court, Dandenong North • 9 & 12 Rosemont Court, Dandenong North • 50 & 52 Mollison Street, Dandenong North • 2/5, 7 & 10 Marcella Avenue, Dandenong North • 10, 12, 14, 15, 16, 17, 18, 19 & 2/21 Barbara Avenue, Dandenong North Community Infrastructure Flooded Mile Creek • Greaves Reserve on Bennett Street, Dandenong likely flooded in parts Yarraman Creek • Oakwood Park on Princes Hwy, Noble Park North Essential Infrastructure Likely Impacted • Bus Routes 814 & 978 along Jacksons Road, Noble Park North • Bus Route 828 along Cheltenham Road, Keysborough Water Over Road (over 300mm depth) Mile Creek • Douglas Street, Noble Park near Noble Park Railway Station and near Pedestrian Underpass • Ian Street and Roberts Street, Noble Park • Lume Court, Noble Park • Arnold Street, Noble Park at Edith Street • Chandler Road, Noble Park near Yarraman Road • Nance Street, Keysborough • Thurbro Drive & Springside Crescent, Keysborough • Shearman Court, Keysborough • Springside Crescent, Keysborough • Cambria Road, Keysborough • Bridge Road, Keysborough • Cheltenham Road, Keysborough at Cambria Road Yarraman Creek • Wincanton Court at Bundamba Drive, Noble Park North • Terrigal Drive, Noble Park North at Rainsford Drive • Noel Court & Ivan Court, Noble Park North • Jacksons Road, Noble Park North between Eagle Drive & Silverton Drive • Redington Drive & Templewood Avenue, Noble Park North • Timberglade Drive, Noble Park North near Clay Court • Facey Court, Noble Park North • Ford Court, Noble Park North • Timberglade Drive, Noble Park North • Overseas Drive, Noble Park North • Kernot Crescent, Noble Park North 	

Creek Height	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		<ul style="list-style-type: none"> • Elonera Road, Noble Park North near Oakwood Avenue • Oakwood Avenue, Noble Park North at Ebden Street • Sunline Avenue, Noble Park North near Wimpole Street • Mollison Street, Dandenong North at Rosemont Court • Marcella Avenue, Dandenong North • Princes Hwy and Heatherton Road Intersection underneath Eastlink Overpass 	

Table C3.10 – Breakdown of likely consequences at various Dandenong West gauge level heights within the Mile Creek and Yarraman Creek catchments with operational considerations

APPENDIX C4 – SPRINGVALE SOUTH & KEYSBOROUGH FLOOD EMERGENCY PLAN

Overview of Flooding Consequences

This Summary table is generated from Victorian Government data. The State of Victoria does not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for error, loss or damage which may arise from reliance upon it. All persons access this information should make appropriate enquiries to assess the currency of the data.

Summary of Consequences in a 1% AEP (100yr ARI) flood within Springvale South and Keysborough

Property					
Properties	178				
Residential	156				
Commercial	19				
Industrial	0				
Public Land	3				
Rural	0				
Community Infrastructure					
Health Facilities	0		Child Care / Kindergartens	2	Bilbungra Kindergarten; & Rascals Child Minding Centre
Care Facilities	1	Crystal Manor	Community Venues	1	Parkmore Shopping Centre
Retirement Villages	0		Places of Worship	3	Bright Moon Buddhist Society; Cambodian Buddhist Temple; & Noble Park Evangelical Baptist Church
Schools / Colleges	0		Prisons	0	
Essential Infrastructure					
Major Roads	0		Police Stations	0	
Major Rail	0		Government Buildings	0	
Bus Routes	2	813; & 824	Sewerage Facilities	6	5 Pumping Stations; & 1 Emergency Relief Point
Power Facility	0		Levees	0	
Comms Services	0		Drainage Facilities	10	8 Retarding Basins; & 2 Pumping Stations
Emergency Services	0		Airports / Airfields	0	
Tourism / Recreation					
Sports Facilities	0		Caravan Parks	0	
Recreation Facilities	0		Camping Grounds	0	
Government Boundaries					
Local Gov't Areas	1	Greater Dandenong	CMA	1	Port Phillip & Westernport
Adjacent LGAs	1	Kingston	CFA District	1	District 08
SES Unit Area	1	Greater Dandenong	MFB District	0	

Table C4.1 – Consequence Summary of 1% AEP flash flood within Springvale South and Keysborough

Springvale South, Noble Park and Keysborough are located approximately 24km southeast of Melbourne in an established residential area. Three main stormwater drains service the area: The Edithvale Road Drain, Springvale South Drain, and Sheltons Drain.

High Intensity, short duration rainfall events may cause flash flooding in and around these drains and the council drainage network that feeds into them. 178 properties are estimated to have above floor flooding in a 1% AEP flood event. See mapping in **Appendix F** for more insight into flooding in the area.

Warning Times

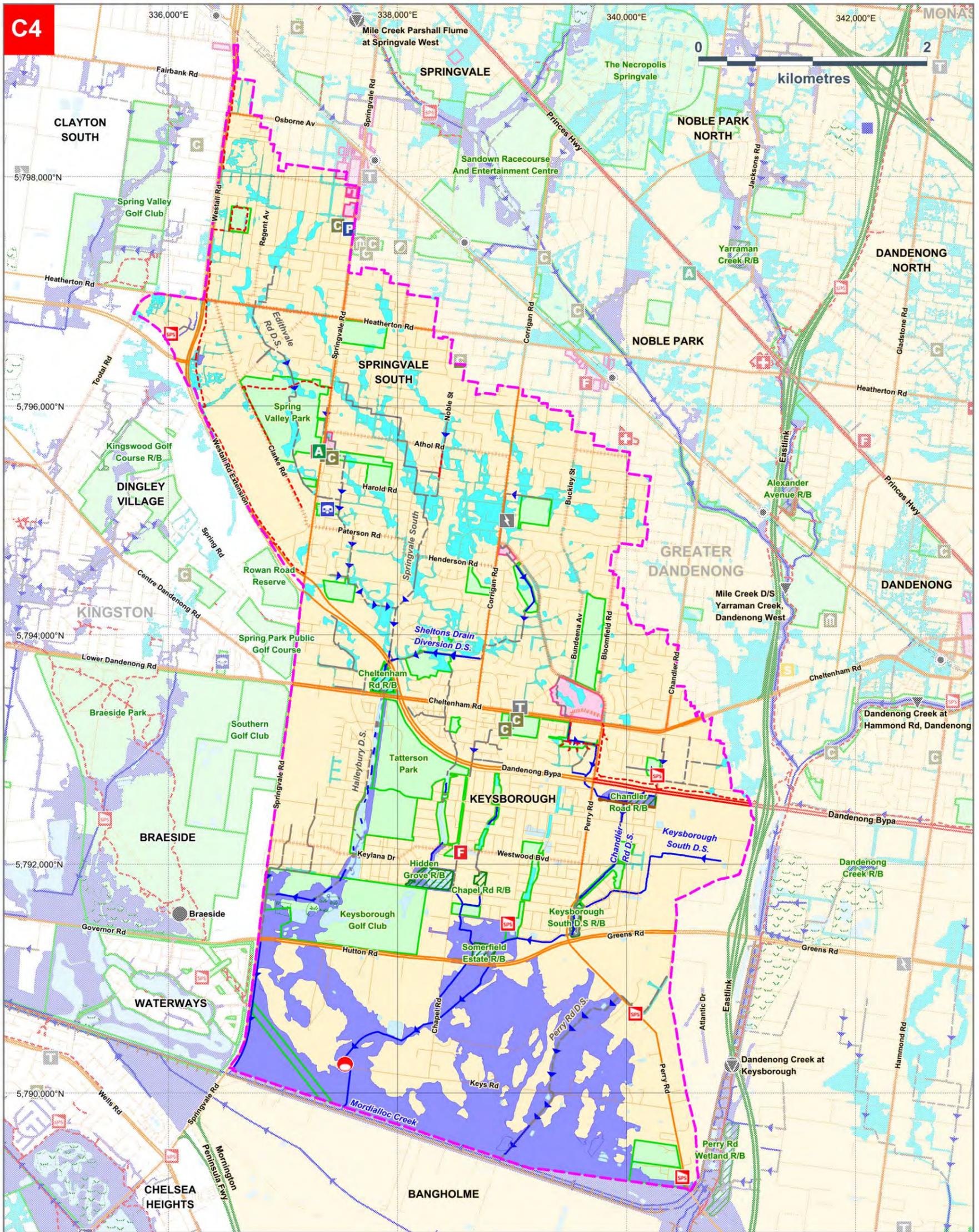
Neither the Bureau of Meteorology nor Melbourne Water currently provides flood forecasts for the Springvale South, Edithvale Road, Haileybury & Keysborough South Drains. All flood response actions must therefore be driven by rainfall and / or river level observations. Telemetered rain gauges are located at Springvale and Braeside within the Mile Creek and Mordialloc Creek catchments.

Melbourne Water Hydrographic Monitoring Station	Station No.	Location	Stream Level & Flow Gauge	Rain Gauge	Melway Reference
Mile Creek at Parshall Flume, Springvale West	228362A	West Side of Channel at end of Oakdale Court, Springvale	✓	✓	79K6
Braeside	586095	Along Bicycle / Walking trail in Braeside Park, 300m from Governor Road, Braeside		✓	3 F1

Table C4.2 – Hydrographic Monitoring Stations within the Mile Creek and Mordialloc Creek catchments

These Gauges may provide some warning of expected flooding. See the Melbourne Water website for more information on these gauges: <http://www.melbournewater.com.au/waterdata/rainfallandriverveldata/Pages/Rainfall-and-river-level-new.aspx>. It is advised that residents monitor the Bureau of Meteorology's website <http://www.bom.gov.au/> and the VicEmergency website <https://emergency.vic.gov.au/> for any thunderstorm, flood or severe weather warnings present for their area.

Areas of Flood Risk



Map Produced by VICSES March 2019

CITY OF GREATER DANDENONG
Version 3. March 2019
C4. Areas of flood risk around Springvale South and Keysborough

- | | | | | | | | |
|--|---------------------------------|--|----------------------------------|--|------------------------------|--|-----------------|
| | Waterbody | | Bus Route (PTV) | | Telephone Exchange | | Hospital |
| | 1% AEP Riverine Flood Extent | | Embankment | | Police Station | | Municipal Depot |
| | 1% AEP Flash Flood Extent | | Levee | | Community Centre | | |
| | Reserve / Park | | Boundary for this Appendix | | Power Terminal Station | | |
| | Commercial Precinct | | Melbourne Water Stormwater Drain | | Rain Gauge | | |
| | Melbourne Water Retarding Basin | | River / Creek | | Stream Level Gauge | | |
| | Caravan Park | | Bicycle / Walking Trail | | Municipal Offices | | |
| | State Emergency Service | | Camp Ground | | Sewer Emergency Relief Point | | |
| | Ambulance Station | | Fire Station | | | | |
| | | | Sewer Pumping Station | | | | |



VICTORIA
State Government
Melbourne Water

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Figure C4.1 – Areas of flood risk around Springvale South, Noble Park & Keysborough in the City of Greater Dandenong

Specific areas Identified by City of Greater Dandenong around Springvale South and Keysborough are listed in the table below

City of Greater Dandenong Identified Hotspot Areas	
Location	Description
Springvale & Heatherton Roads	Burden Park Retarding Basin
Arena Square	
Kingsclere and Bundeena Avenues	Parkmore Shopping Centre
Cheltenham Road and Corrigan Road	Resurrection Primary School
Fenton Court	
Keylana Drive	From Waterway Outlet
Chapel Road, Keysborough	
Perry Road near Pacific Drive	
Goodwood Drive	Properties affected between Goodwood Drive and Heatherton Road
Richard Street and Wardale Road	Properties affected via Heatherhill Secondary College
Harold Road	Properties affected between Harold Road, Veronica Court & Violet Court
Loris Street	Properties affected between Loris Street, Dianne Court & Olympic Avenue
Bellavista Court	Properties affected between Bellavista Court & Athol Road
Athol Road	Properties affected between Athol Road and Mackay Street
Mackay Street and Martin Street	Properties affected between Mackay Street and Martin Street
Cotswold Crescent	Properties affected between Cotswold Crescent, Harold Road and Aurora Court
Aurora Ct, Albion Ct & Tamar Road	Properties affected between Aurora Court, Albion Court & Tamar Road
Ayr Court	Properties affected between Ayr Court, Naomi Court & Vitis Avenue
Walnut Crescent and Henderson Road	Properties affected between Walnut Crescent and Henderson Road and at low point in Tasma Place
Henderson Road & Moorgate Court	Properties affected between Henderson Road, Moorgate Court, Waterloo Court and Shaftesbury Court
Albert Avenue & Heather Grove	Low Point at bottom of hill
Prior Road	Low point at bottom of hill in front of properties at south west corner of road
Buckley Street and Maureen Crescent	Low point at bottom of hill
Montana Street	Court at bottom of hill
Brandon Court	Court at bottom of hill
Cabinda Drive	Low Point in road and possible overland flow path through property
Edward Street and Green St Intersection	Properties at bottom of steep hill
Senga Street	Court at bottom of hill with no court drainage
Corrigan Road	Low point in front of properties
Cyrene Street	Low point in front of properties
Digby Court and Russdann Court intersection	Low point in road
Bloomfield Road and Kingsclere Ave	Intersection at bottom of long hill

Table C4.3 – City of Greater Dandenong Identified Hotspot Areas within Springvale South and Keysborough

Properties at Flood Risk

Properties listed in the table below are at risk from flooding over floor within the Haileybury and Keysborough South Drainage Systems in Greater Dandenong. As more intelligence becomes available, this list may change. This table has been populated based on modelling work as part of the Noble Park and Parkmore Main Drain (Cardno, June 2008) flood mapping and risk assessment program. Note that any multi-lot properties situated above ground floor likely impacted by isolation only with flooding on ground floor impacting access to common areas and/or carpark and storage facilities. Information on above ground-floor properties is not available in this list.

This Property Flood Risk Table is presented by the Victoria State Emergency Service for the purpose of disseminating emergency management information. The contents of the information have not been independently verified by the Victoria State Emergency Service. No liability is accepted for any damage, loss or injury caused by errors or omissions in this information or for any action taken by any person in reliance upon it.

Properties at risk from Flooding Over Floor within the Haileybury Drain and Keysborough South Drain Systems						
Residential			Commercial	Industrial	Rural	Public Use
Street No. at Risk in AEP Event			Address	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
20% AEP	5% AEP	1% AEP				
	✓	✓	1/5 Aleja Court	Noble Park	Sheltons Drain	Flash
	✓	✓	2/5 Aleja Court	Noble Park	Sheltons Drain	Flash
	✓	✓	7 Aleja Court	Noble Park	Sheltons Drain	Flash
		✓	9 Aleja Court	Noble Park	Sheltons Drain	Flash
	✓	✓	1/34 Aleja Court	Noble Park	Sheltons Drain	Flash
	✓	✓	2/34 Aleja Court	Noble Park	Sheltons Drain	Flash
	✓	✓	3/34 Aleja Court	Noble Park	Sheltons Drain	Flash
		✓	8 Arcadia Court	Noble Park	Springvale South Drain	Flash
✓	✓	✓	1/22 Athol Road	Noble Park	Sheltons Drain	Flash
✓	✓	✓	2/22 Athol Road	Noble Park	Sheltons Drain	Flash
		✓	98 Athol Road	Springvale South	Springvale South Drain	Flash
	✓	✓	108 Athol Road	Springvale South	Springvale South Drain	Flash
		✓	117 Athol Road	Springvale South	Springvale South Drain	Flash
		✓	7 Aurora Court	Springvale South	Springvale South Drain	Flash
		✓	9 Aurora Court	Springvale South	Springvale South Drain	Flash
	✓	✓	5 Barrington Close	Keysborough	Sheltons Drain	Flash
✓	✓	✓	6 Barrington Close	Keysborough	Sheltons Drain	Flash
✓	✓	✓	7 Barrington Close	Keysborough	Sheltons Drain	Flash
		✓	3 Belinda Court	Springvale South	Springvale South Drain	Flash
		✓	5 Belinda Court	Springvale South	Springvale South Drain	Flash
	✓	✓	11 Belinda Court	Springvale South	Springvale South Drain	Flash
	✓	✓	3 Bell View Court	Springvale South	Springvale South Drain	Flash
	✓	✓	5 Bell View Court	Springvale South	Springvale South Drain	Flash
✓	✓	✓	3 Bellbird Court	Springvale South	Springvale South Drain	Flash
	✓	✓	6 Bellbird Court	Springvale South	Springvale South Drain	Flash
✓	✓	✓	8 Bellbird Court	Springvale South	Springvale South Drain	Flash
		✓	20 Cambridge Drive	Springvale South	Edithvale Rd Drain	Flash
		✓	22 Cambridge Drive	Springvale South	Edithvale Rd Drain	Flash
✓	✓	✓	159-171 Clarke Road	Springvale South	Edithvale Rd Drain	Flash
		✓	18 Coomoora Road	Springvale South	Edithvale Rd Drain	Flash

Properties at risk from Flooding Over Floor within the Haileybury Drain and Keysborough South Drain Systems

Properties at risk from Flooding Over Floor within the Haileybury Drain and Keysborough South Drain Systems						
Residential		Commercial	Industrial	Rural	Public Use	
Street No. at Risk in AEP Event			Address	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
20% AEP	5% AEP	1% AEP				
	✓	✓	32 Coomoora Road	Springvale South	Edithvale Rd Drain	Flash
	✓	✓	36 Coomoora Road	Springvale South	Edithvale Rd Drain	Flash
	✓	✓	38 Coomoora Road	Springvale South	Edithvale Rd Drain	Flash
		✓	70 Coomoora Road	Springvale South	Edithvale Rd Drain	Flash
	✓	✓	243 Corrigan Road	Noble Park	Sheltons Drain	Flash
		✓	1/245 Corrigan Road	Noble Park	Sheltons Drain	Flash
		✓	2/245 Corrigan Road	Noble Park	Sheltons Drain	Flash
	✓	✓	2/251 Corrigan Road	Noble Park	Sheltons Drain	Flash
	✓	✓	3/251 Corrigan Road	Noble Park	Sheltons Drain	Flash
✓	✓	✓	260 Corrigan Road	Noble Park	Sheltons Drain	Flash
	✓	✓	1/274 Corrigan Road	Noble Park	Sheltons Drain	Flash
	✓	✓	2/274 Corrigan Road	Noble Park	Sheltons Drain	Flash
		✓	11 Deborah Court	Noble Park	Sheltons Drain	Flash
	✓	✓	14 Dianne Court	Springvale South	Springvale South Drain	Flash
		✓	5/11 Digby Court	Springvale South	Springvale South Drain	Flash
✓	✓	✓	2 Eildon Drive	Keysborough	Sheltons Drain	Flash
		✓	11 Ennismore Drive	Keysborough	Edithvale Rd Drain	Flash
	✓	✓	2 Fairborne Way	Keysborough	Five Ways Drain	Flash
	✓	✓	3 Fairborne Way	Keysborough	Five Ways Drain	Flash
	✓	✓	15 Fiveways Boulevard	Keysborough	Five Ways Drain	Flash
	✓	✓	17 Fiveways Boulevard	Keysborough	Five Ways Drain	Flash
		✓	19 Fiveways Boulevard	Keysborough	Five Ways Drain	Flash
✓	✓	✓	28 Fiveways Boulevard	Keysborough	Five Ways Drain	Flash
	✓	✓	30 Fiveways Boulevard	Keysborough	Five Ways Drain	Flash
		✓	51 Glassford Avenue	Springvale South	Edithvale Rd Drain	Flash
	✓	✓	55 Glassford Avenue	Springvale South	Edithvale Rd Drain	Flash
	✓	✓	3 Granton Close	Keysborough	Sheltons Drain	Flash
✓	✓	✓	5 Granton Close	Keysborough	Sheltons Drain	Flash
	✓	✓	7 Halinka Court	Noble Park	Sheltons Drain	Flash
	✓	✓	9 Halinka Court	Noble Park	Sheltons Drain	Flash
	✓	✓	11 Halinka Court	Noble Park	Sheltons Drain	Flash
	✓	✓	12 Halinka Court	Noble Park	Sheltons Drain	Flash
	✓	✓	85 Harold Road	Springvale South	Springvale South Drain	Flash
		✓	90 Harold Road	Springvale South	Springvale South Drain	Flash
✓	✓	✓	1/100 Harold Road	Springvale South	Springvale South Drain	Flash
✓	✓	✓	2/100 Harold Road	Springvale South	Springvale South Drain	Flash
✓	✓	✓	3/100 Harold Road	Springvale South	Springvale South Drain	Flash
✓	✓	✓	133-139 Harold Road	Noble Park	Sheltons Drain	Flash
	✓	✓	144 Harold Road	Noble Park	Sheltons Drain	Flash
		✓	159 Harold Road	Noble Park	Sheltons Drain	Flash
	✓	✓	161 Harold Road	Noble Park	Sheltons Drain	Flash
		✓	163 Harold Road	Noble Park	Sheltons Drain	Flash
		✓	15-17 Horatio Street	Noble Park	Sheltons Drain	Flash

Properties at risk from Flooding Over Floor within the Haileybury Drain and Keysborough South Drain Systems

Properties at risk from Flooding Over Floor within the Haileybury Drain and Keysborough South Drain Systems						
Residential		Commercial	Industrial	Rural	Public Use	
Street No. at Risk in AEP Event			Address	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
20% AEP	5% AEP	1% AEP				
	✓	✓	36 Hume Road	Springvale South	Edithvale Rd Drain	Flash
		✓	3 Jeffery Avenue	Noble Park	Sheltons Drain	Flash
✓	✓	✓	5 Jon Place	Keysborough	Sheltons Drain	Flash
	✓	✓	9 Keith Court	Keysborough	Sheltons Drain	Flash
	✓	✓	11 Keith Court	Keysborough	Sheltons Drain	Flash
	✓	✓	16 Keith Court	Keysborough	Sheltons Drain	Flash
	✓	✓	18 Keith Court	Keysborough	Sheltons Drain	Flash
✓	✓	✓	45-47 Keysborough Avenue	Keysborough	Five Ways Drain	Flash
	✓	✓	49-51 Keysborough Avenue	Keysborough	Five Ways Drain	Flash
	✓	✓	6 Kilberry Avenue	Springvale South	Springvale South Drain	Flash
		✓	4 Kinarra Court	Springvale South	Edithvale Rd Drain	Flash
		✓	6 Kinarra Court	Springvale South	Edithvale Rd Drain	Flash
		✓	8 Kinarra Court	Springvale South	Edithvale Rd Drain	Flash
	✓	✓	129 Kingsclere Avenue	Keysborough	Parkmore Drain	Flash
		✓	2 Koorali Close	Noble Park	Sheltons Drain	Flash
		✓	6 Koorali Close	Noble Park	Sheltons Drain	Flash
		✓	4/5 Leopold Avenue	Springvale South	Springvale South Drain	Flash
	✓	✓	1/18C Loris Street	Springvale South	Springvale South Drain	Flash
	✓	✓	2/18C Loris Street	Springvale South	Springvale South Drain	Flash
		✓	47 Mackay Street	Springvale South	Springvale South Drain	Flash
		✓	5 Meribah Court	Noble Park	Sheltons Drain	Flash
		✓	58 Moodemere Street	Noble Park	Sheltons Drain	Flash
		✓	93 Moodemere Street	Noble Park	Sheltons Drain	Flash
✓	✓	✓	6 Mulgoa Court	Keysborough	Sheltons Drain	Flash
		✓	2 Nairn Court	Keysborough	Sheltons Drain	Flash
	✓	✓	3 Nairn Court	Keysborough	Sheltons Drain	Flash
	✓	✓	16 Nicholas Street	Keysborough	Sheltons Drain	Flash
		✓	18 Nicholas Street	Keysborough	Sheltons Drain	Flash
		✓	154 Noble Street	Noble Park	Springvale South Drain	Flash
		✓	68 Olympic Avenue	Springvale South	Springvale South Drain	Flash
	✓	✓	70 Olympic Avenue	Springvale South	Springvale South Drain	Flash
	✓	✓	72 Olympic Avenue	Springvale South	Springvale South Drain	Flash
	✓	✓	74 Olympic Avenue	Springvale South	Springvale South Drain	Flash
	✓	✓	80 Olympic Avenue	Springvale South	Springvale South Drain	Flash
		✓	4 Piccadilly Crescent	Keysborough	Springvale South Drain	Flash
		✓	6 Piccadilly Crescent	Keysborough	Springvale South Drain	Flash
		✓	13 Piccadilly Crescent	Keysborough	Springvale South Drain	Flash
		✓	15 Piccadilly Crescent	Keysborough	Springvale South Drain	Flash
	✓	✓	4 Putt Grove	Keysborough	Sheltons Drain	Flash
		✓	6 Putt Grove	Keysborough	Sheltons Drain	Flash
		✓	13 Putt Grove	Keysborough	Sheltons Drain	Flash
		✓	2 Reumah Court	Noble Park	Sheltons Drain	Flash
	✓	✓	1/19 Rivergum Place	Keysborough	Edithvale Rd Drain	Flash

Properties at risk from Flooding Over Floor within the Haileybury Drain and Keysborough South Drain Systems

Properties at risk from Flooding Over Floor within the Haileybury Drain and Keysborough South Drain Systems						
Residential			Commercial	Industrial	Rural	Public Use
Street No. at Risk in AEP Event			Address	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
20% AEP	5% AEP	1% AEP				
	✓	✓	2/19 Rivergum Place	Keysborough	Edithvale Rd Drain	Flash
		✓	32 Rivergum Place	Keysborough	Edithvale Rd Drain	Flash
		✓	21 Rosene Court	Keysborough	Parkmore Drain	Flash
	✓	✓	23 Rosene Court	Keysborough	Parkmore Drain	Flash
	✓	✓	27 Rosene Court	Keysborough	Parkmore Drain	Flash
		✓	29 Rosene Court	Keysborough	Parkmore Drain	Flash
		✓	31 Rosene Court	Keysborough	Parkmore Drain	Flash
		✓	4 Rusdamm Court	Springvale South	Springvale South Drain	Flash
		✓	3 Sara Court	Noble Park	Sheltons Drain	Flash
✓	✓	✓	33 Serpentine Road	Keysborough	Edithvale Rd Drain	Flash
	✓	✓	35 Serpentine Road	Keysborough	Edithvale Rd Drain	Flash
	✓	✓	37 Serpentine Road	Keysborough	Edithvale Rd Drain	Flash
	✓	✓	39 Serpentine Road	Keysborough	Edithvale Rd Drain	Flash
	✓	✓	41 Serpentine Road	Keysborough	Edithvale Rd Drain	Flash
	✓	✓	43 Serpentine Road	Keysborough	Edithvale Rd Drain	Flash
	✓	✓	1/45 Serpentine Road	Keysborough	Edithvale Rd Drain	Flash
	✓	✓	2/45 Serpentine Road	Keysborough	Edithvale Rd Drain	Flash
		✓	3 Shaftesbury Court	Keysborough	Springvale South Drain	Flash
	✓	✓	5 Shaftesbury Court	Keysborough	Springvale South Drain	Flash
	✓	✓	7 Shaftesbury Court	Keysborough	Springvale South Drain	Flash
	✓	✓	9 Shaftesbury Court	Keysborough	Springvale South Drain	Flash
	✓	✓	10 Shaftesbury Court	Keysborough	Springvale South Drain	Flash
	✓	✓	11 Shaftesbury Court	Keysborough	Springvale South Drain	Flash
		✓	12 Shaftesbury Court	Keysborough	Springvale South Drain	Flash
		✓	13 Shaftesbury Court	Keysborough	Springvale South Drain	Flash
		✓	3 Snowgum Court	Keysborough	Edithvale Rd Drain	Flash
	✓	✓	14 Snowgum Court	Keysborough	Edithvale Rd Drain	Flash
	✓	✓	20 Snowgum Court	Keysborough	Edithvale Rd Drain	Flash
	✓	✓	22 Snowgum Court	Keysborough	Edithvale Rd Drain	Flash
		✓	1/28 Snowgum Court	Keysborough	Edithvale Rd Drain	Flash
		✓	2/28 Snowgum Court	Keysborough	Edithvale Rd Drain	Flash
	✓	✓	32 Snowgum Court	Keysborough	Edithvale Rd Drain	Flash
	✓	✓	2 Southpark Close	Keysborough	Five Ways Drain	Flash
		✓	32 Springfield Road	Springvale South	Edithvale Rd Drain	Flash
		✓	513 Springvale Road	Springvale South	Springvale South Drain	Flash
		✓	536-540 Springvale Road	Springvale South	Edithvale Rd Drain	Flash
		✓	563 Springvale Road	Springvale South	Edithvale Rd Drain	Flash
		✓	565 Springvale Road	Springvale South	Edithvale Rd Drain	Flash
		✓	1/567 Springvale Road	Springvale South	Edithvale Rd Drain	Flash
		✓	2/567 Springvale Road	Springvale South	Edithvale Rd Drain	Flash
		✓	569 Springvale Road	Springvale South	Edithvale Rd Drain	Flash
		✓	571 Springvale Road	Springvale South	Edithvale Rd Drain	Flash
		✓	573 Springvale Road	Springvale South	Edithvale Rd Drain	Flash

Properties at risk from Flooding Over Floor within the Haileybury Drain and Keysborough South Drain Systems						
Residential		Commercial	Industrial	Rural	Public Use	
Street No. at Risk in AEP Event			Address	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
20% AEP	5% AEP	1% AEP				
	✓	✓	3 Trevor Court	Keysborough	Sheltons Drain	Flash
		✓	8 Tundra Way	Keysborough	Parkmore Drain	Flash
		✓	8 Verbena Crescent	Noble Park	Sheltons Drain	Flash
		✓	2/18 Verbena Crescent	Noble Park	Sheltons Drain	Flash
		✓	4/18 Verbena Crescent	Noble Park	Sheltons Drain	Flash
		✓	2 Wallarano Drive	Noble Park	Sheltons Drain	Flash
	✓	✓	4 Wallarano Drive	Noble Park	Sheltons Drain	Flash
	✓	✓	6 Wallarano Drive	Noble Park	Sheltons Drain	Flash
	✓	✓	15 Walnut Crescent	Noble Park	Sheltons Drain	Flash
		✓	18 Walnut Crescent	Noble Park	Sheltons Drain	Flash
		✓	21 Walnut Crescent	Noble Park	Sheltons Drain	Flash
	✓	✓	1 Wardale Road	Springvale South	Springvale South Drain	Flash
	✓	✓	3 Wardale Road	Springvale South	Springvale South Drain	Flash
		✓	5 Wardale Road	Springvale South	Springvale South Drain	Flash
	✓	✓	9 Wardale Road	Springvale South	Springvale South Drain	Flash
✓	✓	✓	11 Wardale Road	Springvale South	Springvale South Drain	Flash
		✓	12 Warragamba Court	Keysborough	Sheltons Drain	Flash
		✓	11A Wirilda Court	Springvale South	Edithvale Rd Drain	Flash
		✓	4 Yennora Court	Keysborough	Sheltons Drain	Flash
Totals						
20	100	178				

Table C4.4 – Properties at risk of flooding along the Haileybury and Keysborough South Drains catchment in the City of Greater Dandenong

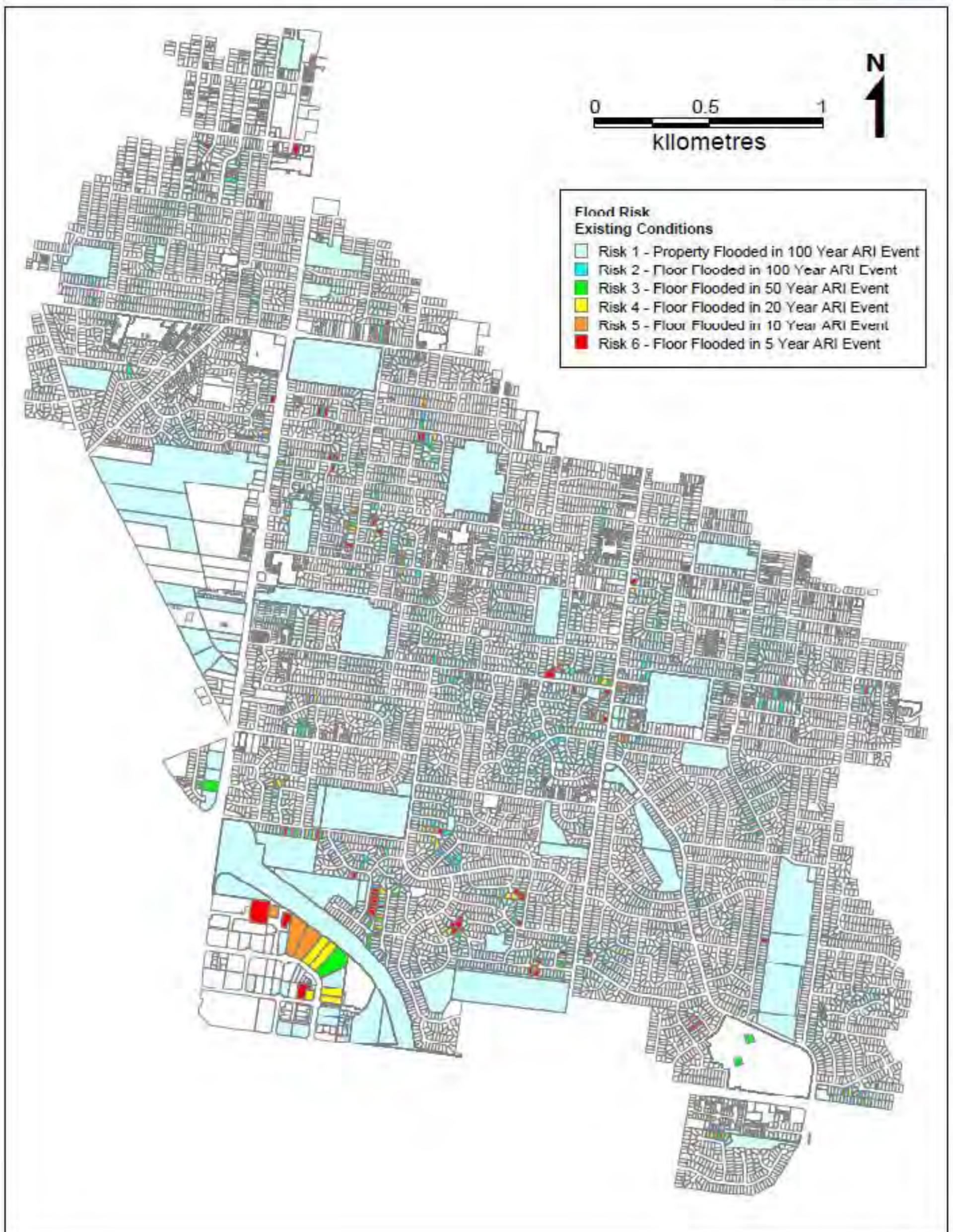


Figure C4.2 – Properties Affected in Springvale South, Noble Park & Keysborough

Isolation

No major isolation risks exist for areas around Springvale South, Noble Park or Keysborough during a 1% AEP (100yr ARI) event. Some localised short-duration isolation may occur due to flash flooding.

Essential Infrastructure

During an event, see the Public Transport Victoria's Website for details on delays or alterations to services. <http://ptv.vic.gov.au/live-travel-updates/>. A map of Public Transport routes within the City of Greater Dandenong is available via the website at: https://static.ptv.vic.gov.au/siteassets/Maps/Localities/PDFs/18_Greater_Dandenong_LAM.pdf

Apart from the roads outlined below, all other essential infrastructure and services areas around Springvale South, Noble Park and Keysborough are expected to remain unaffected by flooding during a 1% AEP (100yr ARI) event.

Road Closures

The following roads are subject to closure during flooding around Springvale South, Noble Park or Keysborough. Check the VicRoads website for more details: <https://traffic.vicroads.vic.gov.au/>

VicRoads Roads flooded in a 1% AEP (100yr ARI) event	
<ul style="list-style-type: none"> Nil 	

Table C4.5 – VicRoads Possible Road Closures during a flooding event

Greater Dandenong City Council Roads flooded in a 1% AEP (100yr ARI) event			
KEYSBOROUGH	<ul style="list-style-type: none"> Yennora Court 	<ul style="list-style-type: none"> Taronga Court 	<ul style="list-style-type: none"> Bellavista Court
<ul style="list-style-type: none"> Dumfries Road 	NOBLE PARK	<ul style="list-style-type: none"> Tasma Place 	<ul style="list-style-type: none"> Bellbird Court
<ul style="list-style-type: none"> Eildon Drive 	<ul style="list-style-type: none"> Aenone Avenue 	<ul style="list-style-type: none"> Theodore Avenue 	<ul style="list-style-type: none"> Bellview Court
<ul style="list-style-type: none"> Henderson Road 	<ul style="list-style-type: none"> Aleja Court 	<ul style="list-style-type: none"> Vallota Crescent 	<ul style="list-style-type: none"> Brandon Court
<ul style="list-style-type: none"> Jon Place 	<ul style="list-style-type: none"> Arcadia Court 	<ul style="list-style-type: none"> Vega Close 	<ul style="list-style-type: none"> Coomoora Road
<ul style="list-style-type: none"> Keith Court 	<ul style="list-style-type: none"> Arena Square 	<ul style="list-style-type: none"> Verbena Crescent 	<ul style="list-style-type: none"> Dianne Court
<ul style="list-style-type: none"> Kingsclere Avenue 	<ul style="list-style-type: none"> Buckley Street 	<ul style="list-style-type: none"> Veronica Court 	<ul style="list-style-type: none"> Doris Court
<ul style="list-style-type: none"> Lancaster Court 	<ul style="list-style-type: none"> Deborah Court 	<ul style="list-style-type: none"> Violet Court 	<ul style="list-style-type: none"> Ealing Crescent
<ul style="list-style-type: none"> Leanne Crescent 	<ul style="list-style-type: none"> Fay Court 	<ul style="list-style-type: none"> Vitis Avenue 	<ul style="list-style-type: none"> Elisabeth Avenue
<ul style="list-style-type: none"> Liverpool Drive 	<ul style="list-style-type: none"> Hellyer Street 	<ul style="list-style-type: none"> Wallarano Drive 	<ul style="list-style-type: none"> Goodwood Drive
<ul style="list-style-type: none"> Loxwood Avenue 	<ul style="list-style-type: none"> Koorali Close 	<ul style="list-style-type: none"> Walnut Crescent 	<ul style="list-style-type: none"> Harmony Court
<ul style="list-style-type: none"> Meadowbrook Place 	<ul style="list-style-type: none"> Kumali Court 	SPRINGVALE	<ul style="list-style-type: none"> Hume Road
<ul style="list-style-type: none"> Moorgate Court 	<ul style="list-style-type: none"> Maureen Crescent 	<ul style="list-style-type: none"> Emerald Drive 	<ul style="list-style-type: none"> Loris Street
<ul style="list-style-type: none"> Mulgoa Court 	<ul style="list-style-type: none"> Meribah Court 	<ul style="list-style-type: none"> Hanleth Avenue 	<ul style="list-style-type: none"> Mackay Street
<ul style="list-style-type: none"> Narellan Drive 	<ul style="list-style-type: none"> Naomi Court 	<ul style="list-style-type: none"> Heather Grove 	<ul style="list-style-type: none"> Regina Street
<ul style="list-style-type: none"> Piccadilly Crescent 	<ul style="list-style-type: none"> Newman Avenue 	<ul style="list-style-type: none"> Kallista Road 	<ul style="list-style-type: none"> Russdann Court
<ul style="list-style-type: none"> Serpentine Road 	<ul style="list-style-type: none"> Noola Close 	<ul style="list-style-type: none"> Moncur Avenue 	<ul style="list-style-type: none"> Sharon Road
<ul style="list-style-type: none"> Shaftsbury Court 	<ul style="list-style-type: none"> Reumah Court 	<ul style="list-style-type: none"> St Johns Avenue 	<ul style="list-style-type: none"> Sharon Road
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<ul style="list-style-type: none"> Warragamba Court 	<ul style="list-style-type: none"> Rutherglen Street 	<ul style="list-style-type: none"> Athol Road 	<ul style="list-style-type: none"> Wardale Road
<ul style="list-style-type: none"> Waterloo Court 	<ul style="list-style-type: none"> Sara Court 	<ul style="list-style-type: none"> Aurora Court 	<ul style="list-style-type: none"> Woodstock Place

Table C4.6 – Greater Dandenong City Council possible road closures during a flooding event

Flood Mitigation

Retarding Basins

Melbourne Water Retarding Basin	On Drain/ Waterway	Area	Storage Capacity	Spillway Crest Level	Embankment Height & (Crest Level)	ANCOLD Hazard Rating	Houses In Flow Path (dam breach)	Melway Reference
Chandler Road	Chandler Road Drain	2.4 ha	46.0 ML	No Spillway	0.5m (41.5m AHD)	Very Low	0	89 F11
Chapel Road	Sheltons Drain West Branch	0.4 ha	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	94 C1
Cheltenham Road	Edithvale Road Drain	3.0 ha	67.5 ML	15.6m AHD	1.7m (16.3m AHD)	Low	75	89 A8
Hidden Grove	Sheltons Drain West Branch	2.9 ha	37.7 ML	Unavailable	1.6m (9.3m AHD)	Very Low	25	94 B1
Keysborough South D.S.	Keysborough South D.S.	1.6 ha	23 ML	8.15m AHD	(8.40m AHD)	Unavailable	Unavailable	94 E2

Table C4.7 – Melbourne Water Retarding Basins within the Haileybury and Keysborough South Drains catchment in the City of Greater Dandenong

Greater Dandenong City Council Retarding Basin	Suburb	Type	Melway Reference
Burden Park	Springvale South	Gravity Flow	89 A1
Deborah Court	Noble Park	Pumped	89 C4
Laidlaw Court	Keysborough	Valve Operation	89 A6

Table C4.8 – Greater Dandenong City Council Retarding Basins within the Haileybury and Keysborough South Drains catchment

Pumping Stations

Greater Dandenong City Council Pumping Station	Suburb	Melway Reference
Cheltenham Road	Keysborough	
Deborah Court	Noble Park	89 C4

Table C4.9 – Greater Dandenong City Pumping Stations around Springvale South, Noble Park & Keysborough

Levees

No formal Levees exist around the storm drainage network in Springvale South, Noble Park & Keysborough.

Sewerage Infrastructure

Sewerage Infrastructure of note during a severe flood event located around Springvale South, Noble Park & Keysborough are contained within the following two tables.

Sewer Pumping Stations

Sewerage Pumping Station	On Drain / Waterway	Bank / Side of Waterway	Operator	Location	Melway Reference
Burnham Crescent	Keysborough South D.S.	-	South East Water	60 Tyers Lane, Keysborough	94 C2
Chandler Road	Chandler Rd D.S.	-	South East Water	20-28 Bergen Street, Keysborough	89 G10
Corio Drive	Gartsides North Drain	-	South East Water	36 Corio Drive, Springvale South	88 F1
Perry Road	Perry Rd D.S.	-	South East Water	230-234 Perry Road, Keysborough	94 F3
Perry Road South	Mordialloc Creek	North	South East Water	Jim Harkin Reserve, Perry Road, Keysborough	94 G7

Table C4.10 – Sewer Pumping Stations within the Haileybury and Keysborough South Drainage Catchment in the City of Greater Dandenong

Sewer Emergency Relief Points

On Drain / Waterway	Bank / Side of Waterway	Location	Melway Reference
Keysborough South Drain System	West	400m north of Mordialloc Creek convergence	93 K4

Table C4.11 – Sewer Emergency Relief Points in the Haileybury and Keysborough South Catchment in the City of Greater Dandenong

Command, Control and Coordination

VICSES will assume overall control of the response to flood incidents. Other agencies will be requested to support operations as detailed in this Plan. Control and coordination of a flood incident shall be carried out at the lowest effective level and in accordance with the State Emergency Response Plan (EMMV Part 3). During significant events, VICSES will conduct incident management using multi-agency resources.

Flood Impacts & Operational Considerations (Intelligence Cards)

The tables on the following pages provide a breakdown of the possible consequences of flooding along the Haileybury and Keysborough South Drains at various rain intensities within Greater Dandenong. These tables are to be used only as a guide as no two floods at a location will have identical impacts.

Intelligence Cards have been included for the following locations:

- Haileybury and Keysborough South Drains, Springvale South and Keysborough

FLOOD INTELLIGENCE CARD – HAILEYBURY & KEYSBOROUGH SOUTH DRAINS (UNGAUGED)

Version 3 – April 2019



Note: flood intelligence records are approximations. This is because no two floods at a location, even if they peak at the same height, will have identical impacts. Flood intelligence cards detail the relationship between flood magnitude and flood consequences. More details about flood intelligence and its use can be found in the Australian Emergency Management Manuals flood series.

This Flood Intelligence Card publication is presented by the Victoria State Emergency Service for the purpose of disseminating emergency management information. The contents of the information have not been independently verified by the Victoria State Emergency Service. No liability is accepted for any damage, loss or injury caused by errors or omissions in this information or for any action taken by any person in reliance upon it.

CLOSEST RAIN GAUGE	Braeside Park Rain Gauge
LOCATION	Braeside Park, Governor Road, Braeside
MELWAY REF:	93F1

GAUGE NUMBER	586095
GAUGE TYPE	Rain
TELEMETRIC/MANUAL	Telemetric

Design Rainfall Depths (mm) – Indication of Possible Flooding	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
11mm in 10 mins; 19mm in 30 mins; 24mm in 1 hour; 30mm in 2 hours; 34mm in 3 hours; or 43mm in 6 hours Note: rainfall depths are a very rough method of estimating flood events and have been used due to the ungauged nature of the catchment. This should be used as a guide only.	20% AEP (5 year ARI)	Properties at Flood Risk (over-floor) 20 Properties in Total Edithvale Rd Drain <ul style="list-style-type: none"> 159-171 Clarke Road, Springvale South 33 Serpentine Road, Keysborough Five Ways Drain <ul style="list-style-type: none"> 28 Fiveways Boulevard, Keysborough 45-47 Keysborough Avenue, Keysborough Sheltons Drain <ul style="list-style-type: none"> Units 1-2/22 Athol Road, Noble Park 6 & 7 Barrington Close, Keysborough 260 Corrigan Road, Noble Park 2 Eildon Drive, Keysborough 5 Granton Close, Keysborough 133-139 Harold Road, Noble Park 5 Jon Place, Keysborough 6 Mulgoa Court, Keysborough Springvale South Drain <ul style="list-style-type: none"> 3 & 8 Bellbird Court, Springvale South 1-3/100 Harold Road, Springvale South 11 Wardale Road, Springvale South 	

Design Rainfall Depths (mm) – Indication of Possible Flooding	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations						
		<p>Community Infrastructure Flooded</p> <ul style="list-style-type: none"> Bright Moon Buddhist Society on Springvale Road, Springvale South Cambodian Buddhist Temple on Clarke Road, Springvale South at risk of over-floor flooding Crystal Manor Assisted Living Facility on Harold Road, Noble Park at risk of over-floor flooding Noble Park Evangelical Baptist Church on Harold Road, Noble Park <p>Water Over Road (over 300mm depth)</p> <table border="0"> <tr> <td>Keysborough</td> <td>Noble Park</td> <td>Springvale South</td> </tr> <tr> <td> <ul style="list-style-type: none"> Moorgate Court Waterloo Court Lancaster Court Keith Court Jon Place Mulgoa Court Eildon Drive </td> <td> <ul style="list-style-type: none"> Aleja Court Vallota Crescent Aenone Avenue Wallarano Drive Arena Square </td> <td> <ul style="list-style-type: none"> Ealing Crescent Elisabeth Avenue Rusdamm Court Bellavista Court </td> </tr> </table>	Keysborough	Noble Park	Springvale South	<ul style="list-style-type: none"> Moorgate Court Waterloo Court Lancaster Court Keith Court Jon Place Mulgoa Court Eildon Drive 	<ul style="list-style-type: none"> Aleja Court Vallota Crescent Aenone Avenue Wallarano Drive Arena Square 	<ul style="list-style-type: none"> Ealing Crescent Elisabeth Avenue Rusdamm Court Bellavista Court 	
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<p>14mm in 10 mins; 23mm in 30 mins; 29mm in 1 hour; 36mm in 2 hours; 40mm in 3 hours; or 50mm in 6 hours</p> <p>Note: rainfall depths are a very rough method of estimating flood events and have been used due to the ungaged nature of the catchment. This should be used as a guide only.</p>	<p>10% AEP (10 year ARI)</p>	<p>Properties at Flood Risk (over-floor)</p> <p>63 Properties in Total</p> <p>Edithvale Rd Drain</p> <ul style="list-style-type: none"> 159-171 Clarke Road, Springvale South 55 Glassford Avenue, Springvale South 33, 35, 37, 39, 41, 43 & 1/45 Serpentine Road, Keysborough 14 Snowgum Court, Keysborough <p>Five Ways Drain</p> <ul style="list-style-type: none"> 2 Fairborne Way, Keysborough 28 & 30 Fiveways Boulevard, Keysborough 45-47 & 49-51 Keysborough Avenue, Keysborough 2 Southpark Close, Keysborough <p>Parkmore Drain</p> <ul style="list-style-type: none"> 129 Kingsclere Avenue, Keysborough 27 Rosene Court, Keysborough <p>Sheltons Drain</p> <ul style="list-style-type: none"> 7 & Units 1-3/34 Aleja Court, Noble Park Units 1-2/22 Athol Road, Noble Park 6 & 7 Barrington Close, Keysborough Units 2-3/251, 260, Units 1-2/274 Corrigan Road, Noble Park 2 Eildon Drive, Keysborough 5 Granton Close, Keysborough 9, 11 & 12 Halinka Court, Noble Park 							

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		<ul style="list-style-type: none"> • 133-139 & 144 Harold Road, Noble Park • 5 Jon Place, Keysborough • 11, 16 & 18 Keith Court, Keysborough • 6 Mulgoa Court, Keysborough • 16 Nicholas Street, Keysborough • 3 Trevor Court, Keysborough • 4 & 6 Wallarano Drive, Noble Park <p>Springvale South Drain</p> <ul style="list-style-type: none"> • 108 Athol Road, Springvale South • 5 Bell View Court, Springvale • 3 & 8 Bellbird Court, Springvale South • 14 Dianne Court, Springvale South • 1-3/100 Harold Road, Springvale South • Units 1-2/18C Loris Street, Springvale South • 74 & 80 Olympic Avenue, Springvale South • 9 & 11 Shaftesbury Court, Keysborough • 9 & 11 Wardale Road, Springvale South <p>Community Infrastructure Flooded</p> <ul style="list-style-type: none"> • Bright Moon Buddhist Society on Springvale Road, Springvale South • Cambodian Buddhist Temple on Clarke Road, Springvale South at risk of over-floor flooding • Crystal Manor Assisted Living Facility on Harold Road, Noble Park at risk of over-floor flooding • Noble Park Evangelical Baptist Church on Harold Road, Noble Park • Bilbungra Kindergarten on Filer Court, Keysborough • Parkmore Shopping Centre, Cheltenham Road Keysborough likely flooded in car park to west <p>Water Over Road (over 300mm depth)</p> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left; width: 25%;">Keysborough</th> <th style="text-align: left; width: 25%;">Noble Park</th> <th style="text-align: left; width: 25%;">Springvale</th> <th style="text-align: left; width: 25%;">Springvale South</th> </tr> </thead> <tbody> <tr> <td>• Eildon Drive</td> <td>• Aenone Avenue</td> <td>• Heather Grove</td> <td>• Bellavista Court</td> </tr> <tr> <td>• Jon Place</td> <td>• Aleja Court</td> <td></td> <td>• Dianne Court</td> </tr> <tr> <td>• Keith Court</td> <td>• Arena Square</td> <td></td> <td>• Ealing Crescent</td> </tr> <tr> <td>• Lancaster Court</td> <td>• Kumali Court</td> <td></td> <td>• Elisabeth Avenue</td> </tr> <tr> <td>• Loxwood Avenue</td> <td>• Taronga Court</td> <td></td> <td>• Mackay Street</td> </tr> <tr> <td>• Meadowbrook Place</td> <td>• Vallota Crescent</td> <td></td> <td>• Russdann Court</td> </tr> <tr> <td>• Moorgate Court</td> <td>• Veronica Court</td> <td></td> <td></td> </tr> <tr> <td>• Mulgoa Court</td> <td>• Wallarano Drive</td> <td></td> <td></td> </tr> <tr> <td>• Serpentine Road</td> <td></td> <td></td> <td></td> </tr> <tr> <td>• Shaftesbury Court</td> <td></td> <td></td> <td></td> </tr> <tr> <td>• Waterloo Court</td> <td></td> <td></td> <td></td> </tr> <tr> <td>• Yennora Court</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Keysborough	Noble Park	Springvale	Springvale South	• Eildon Drive	• Aenone Avenue	• Heather Grove	• Bellavista Court	• Jon Place	• Aleja Court		• Dianne Court	• Keith Court	• Arena Square		• Ealing Crescent	• Lancaster Court	• Kumali Court		• Elisabeth Avenue	• Loxwood Avenue	• Taronga Court		• Mackay Street	• Meadowbrook Place	• Vallota Crescent		• Russdann Court	• Moorgate Court	• Veronica Court			• Mulgoa Court	• Wallarano Drive			• Serpentine Road				• Shaftesbury Court				• Waterloo Court				• Yennora Court				
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<p>16mm in 10 mins; 27mm in 30 mins; 34mm in 1 hour; 41mm in 2 hours; 46mm in 3 hours; or 57mm in 6 hours</p> <p>Note: rainfall depths are a very rough method of estimating flood events and have been used due to the ungagged nature of the catchment. This should be used as a guide only.</p>	<p>5% AEP (20 year ARI)</p>	<p>Properties at Flood Risk (over-floor)</p> <p>100 Properties in Total</p> <p>Edithvale Rd Drain</p> <ul style="list-style-type: none"> • 159-171 Clarke Road, Springvale South • 32, 36 & 38 Coomooro Road, Springvale South • 55 Glassford Avenue, Springvale South • 36 Hume Road, Springvale South • 1/19 & 2/19 Rivergum Place, Keysborough • 33, 35, 37, 39, 41, 43, 1/45 & 2/45 Serpentine Road, Keysborough • 14, 20, 22 & 32 Snowgum Court, Keysborough <p>Five Ways Drain</p> <ul style="list-style-type: none"> • 2 & 3 Fairborne Way, Keysborough • 15, 17, 19, 28 & 30 Fiveways Boulevard, Keysborough • 45-47 & 49-51 Keysborough Avenue, Keysborough • 2 Southpark Close, Keysborough <p>Parkmore Drain</p> <ul style="list-style-type: none"> • 129 Kingsclere Avenue, Keysborough • 23 & 27 Rosene Court, Keysborough <p>Sheltons Drain</p> <ul style="list-style-type: none"> • 1/5, 2/5, 7 & Units 1-3/34 Aleja Court, Noble Park • Units 1-2/22 Athol Road, Noble Park • 5, 6 & 7 Barrington Close, Keysborough • 243, Units 2-3/251, 260, Units 1-2/274 Corrigan Road, Noble Park • 2 Eildon Drive, Keysborough • 3 & 5 Granton Close, Keysborough • 7, 9, 11 & 12 Halinka Court, Noble Park • 133-139, 144 & 161 Harold Road, Noble Park • 5 Jon Place, Keysborough • 9, 11, 16 & 18 Keith Court, Keysborough • 6 Mulgoa Court, Keysborough • 3 Nairn Court, Keysborough • 16 Nicholas Street, Keysborough • 4 Putt Grove, Keysborough • 3 Trevor Court, Keysborough • 4 & 6 Wallarano Drive, Noble Park • 15 Walnut Crescent, Noble Park <p>Springvale South Drain</p> <ul style="list-style-type: none"> • 108 Athol Road, Springvale South • 11 Belinda Court, Springvale South 	

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Design Rainfall Depths (mm) – Indication of Possible Flooding	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
<p>41mm in 1 hour; 49mm in 2 hours; 54mm in 3 hours; or 67mm in 6 hours</p> <p>Note: rainfall depths are a very rough method of estimating flood events and have been used due to the ungagged nature of the catchment. This should be used as a guide only.</p>		<ul style="list-style-type: none"> • 20 & 22 Cambridge Drive, Springvale South • 159-171 Clarke Road, Springvale South • 18, 32, 36 & 38 Coomooro Road, Springvale South • 11 Ennismore Drive, Keysborough • 51 & 55 Glassford Avenue, Springvale South • 36 Hume Road, Springvale South • 1/19 & 2/19 Rivergum Place, Keysborough • 33, 35, 37, 39, 41, 43, 1/45 & 2/45 Serpentine Road, Keysborough • 14, 20, 22, 1/28, 2/28 & 32 Snowgum Court, Keysborough • 32 Springfield Road, Springvale South • 536-540, 563, 565, 1/567, 2/567, 569, 571 & 573 Springvale Road, Springvale South Five Ways Drain • 2 & 3 Fairborne Way, Keysborough • 15, 17, 19, 28 & 30 Fiveways Boulevard, Keysborough • 45-47 & 49-51 Keysborough Avenue, Keysborough • 2 Southpark Close, Keysborough Parkmore Drain • 129 Kingsclere Avenue, Keysborough • 21, 23, 27 & 29 Rosene Court, Keysborough • 8 Tundra Way, Keysborough Sheltons Drain • 1/5, 2/5, 7 & Units 1-3/34 Aleja Court, Noble Park • Units 1-2/22 Athol Road, Noble Park • 5, 6 & 7 Barrington Close, Keysborough • 243, 1/245, Units 2-3/251, 260, Units 1-2/274 Corrigan Road, Noble Park • 2 Eildon Drive, Keysborough • 3 & 5 Granton Close, Keysborough • 7, 9, 11 & 12 Halinka Court, Noble Park • 133-139, 144, 159, 161 & 163 Harold Road, Noble Park • 3 Jeffery Avenue, Noble Park • 5 Jon Place, Keysborough • 9, 11, 16 & 18 Keith Court, Keysborough • 6 Mulgoa Court, Keysborough • 2 & 3 Nairn Court, Keysborough • 16 & 18 Nicholas Street, Keysborough • 4 & 6 Putt Grove, Keysborough • 3 Trevor Court, Keysborough • 4/18 Verbena Crescent, Noble Park • 2, 4 & 6 Wallarano Drive, Noble Park 	

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<p>23mm in 10 mins; 38mm in 30 mins; 46mm in 1 hour; 55mm in 2 hours; 61mm in 3 hours; or 75mm in 6 hours</p> <p>Note: rainfall depths are a very rough method of estimating flood events and have been used due to the ungagged nature of the catchment. This should be used as a guide only.</p>	<p>1% AEP (100 year ARI)</p>	<p>Properties at Flood Risk (over-floor)</p> <p>178 Properties in Total</p> <p>Edithvale Rd Drain</p> <ul style="list-style-type: none"> • 20 & 22 Cambridge Drive, Springvale South • 159-171 Clarke Road, Springvale South • 18, 32, 36, 38 & 70 Coomoorra Road, Springvale South • 11 Ennismore Drive, Keysborough • 51 & 55 Glassford Avenue, Springvale South • 36 Hume Road, Springvale South • 4, 6 & 8 Kinarra Court, Springvale South • 1/19, 2/19 & 32 Rivergum Place, Keysborough • 33, 35, 37, 39, 41, 43, 1/45 & 2/45 Serpentine Road, Keysborough • 3, 14, 20, 22, 1/28, 2/28 & 32 Snowgum Court, Keysborough • 32 Springfield Road, Springvale South • 536-540, 563, 565, 1/567, 2/567, 569, 571 & 573 Springvale Road, Springvale South • 11A Wirilda Court, Springvale South <p>Five Ways Drain</p> <ul style="list-style-type: none"> • 2 & 3 Fairborne Way, Keysborough • 15, 17, 19, 28 & 30 Fiveways Boulevard, Keysborough • 45-47 & 49-51 Keysborough Avenue, Keysborough • 2 Southpark Close, Keysborough <p>Parkmore Drain</p> <ul style="list-style-type: none"> • 129 Kingsclere Avenue, Keysborough • 21, 23, 27, 29 & 31 Rosene Court, Keysborough • 8 Tundra Way, Keysborough <p>Sheltons Drain</p>		

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Table C4.12 – Breakdown of possible consequences at various rainfall intensities around Keysborough, Noble Park, Springvale and Springvale South with operational considerations

APPENDIX C5 – DANDENONG & DANDENONG NORTH FLOOD EMERGENCY PLAN

Overview of Flooding Consequences

This Summary table is generated from Victorian Government data. The State of Victoria does not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for error, loss or damage which may arise from reliance upon it. All persons access this information should make appropriate enquiries to assess the currency of the data.

Summary of Consequences in a 1% AEP (100yr ARI) flash flood in Dandenong and Dandenong North

Property					
Properties	247				
Residential	114				
Commercial	123				
Industrial	7				
Public Land	3				
Rural	0				
Community Infrastructure					
Health Facilities	0		Child Care / Kindergartens	1	Happy Kids Child Care
Care Facilities	1	Outlook Gardens	Community Venues	1	Dandenong CBD
Retirement Villages	0		Places of Worship	0	
Schools / Colleges	3	Chisholm Institute of TAFE: Emerson School; & St John's Catholic Regional College	Prisons	0	
Essential Infrastructure					
Major Roads	2	Cheltenham Road; & Princes Highway	Police Stations	0	
Major Rail	0		Government Buildings	0	
Bus Routes	4	811; 862; 978; & 979	Sewerage Facilities	2	Pumping Stations
Power Facility	0		Levees	2	Ross St to Jesson St
Comms Services	0		Drainage Facilities	3	Retarding Basins
Emergency Services	0		Airports / Airfields	0	
Tourism / Recreation					
Sports Facilities	0		Caravan Parks	0	
Recreation Facilities	1	Lois Twohig Reserve	Camping Grounds	0	
Government Boundaries					
Local Gov't Areas	1	Greater Dandenong	CMA	1	Port Phillip & Westernport
Adjacent LGAs	0		CFA District	1	District 08
SES Unit Area	1	Greater Dandenong	MFB District	0	

Table C5.1 – Consequence Summary of 1% AEP flash flood in Dandenong and Dandenong North

Dandenong and Dandenong North are located approximately 29km southeast of Melbourne in a predominantly residential and commercial area. There are a number of underground stormwater drains that service the area, flowing into Dandenong Creek to the east and south. These drains include the Outlook Drive, Exells, and McFees Drains. High Intensity, short duration rainfall events

may cause flash flooding in and around this area. The area sees shallow sheet flooding with deeper flooding possible adjacent to Dandenong Creek. See mapping in Appendix F for more insight into flooding in the area.

Warning Times

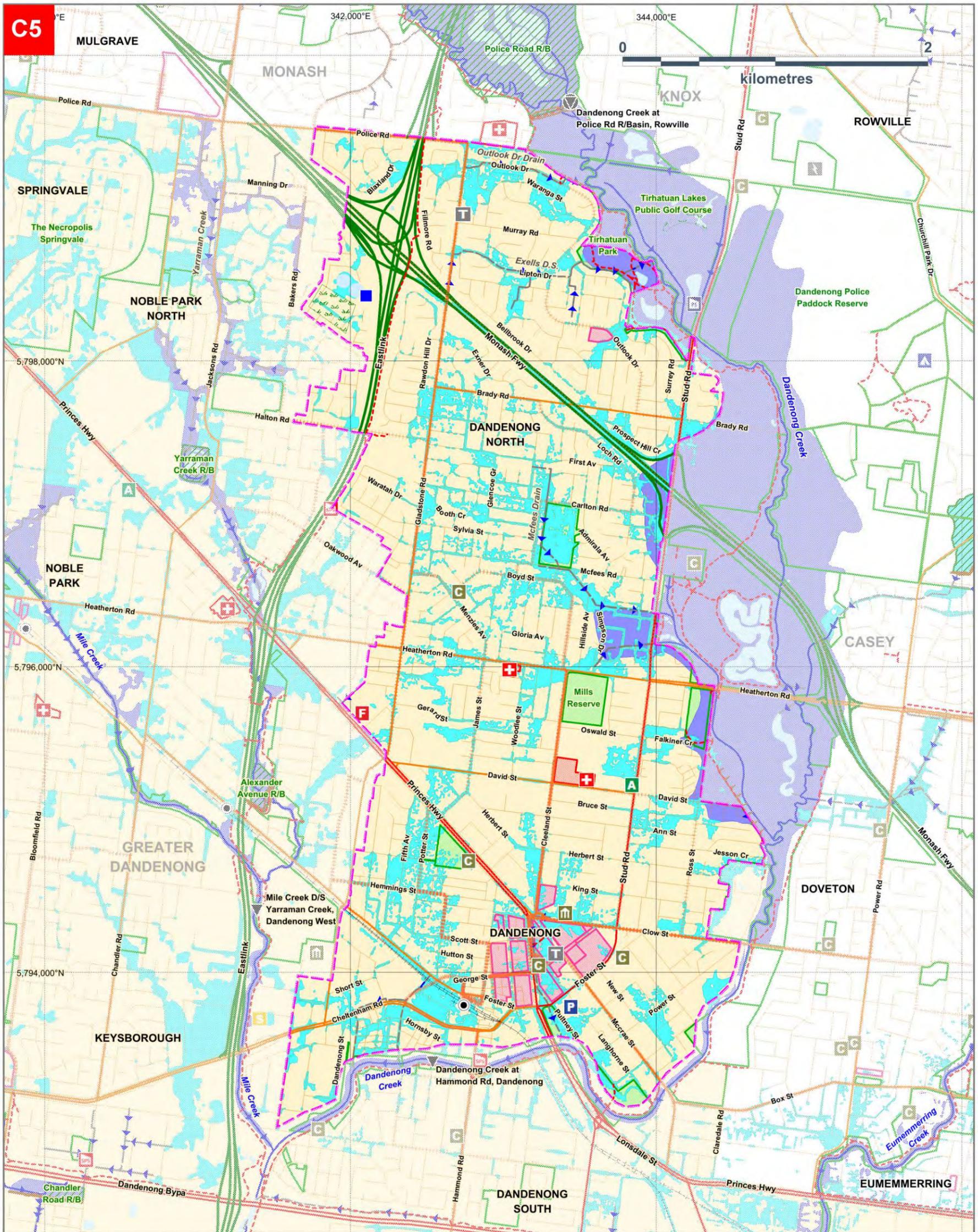
Neither the Bureau of Meteorology nor Melbourne Water currently provides flood forecasts for the flash flooding areas of Dandenong & Dandenong North. All flood response actions must therefore be driven by rainfall and / or river level observations. Telemetered water level / rain gauges are located at Rowville, Dandenong & Dandenong West within the Dandenong Creek and Mile Creek catchments.

Melbourne Water Hydrographic Monitoring Station	Station No.	Location	Stream Level & Flow Gauge	Rain Gauge	Melway Reference
Dandenong Creek at Police Road Retarding Basin, Rowville	228368A	North side of Embankment	✓	✓	81E6
Dandenong Creek at Hammond Road, Dandenong	228204C	South side of the Channel, at the end of Southbourne Ave, Dandenong	✓		90C9
Mile Creek downstream of Yarraman Creek, Dandenong West	228210C	East side of the creek in Greaves Reserve, next to Netball Complex, Dandenong	✓		89K6

Table C5.2 – Hydrographic Monitoring Stations within the Dandenong Creek and Mile Creek catchments

These Gauges may provide some warning of expected flooding. See the Melbourne Water website for more information on these gauges: <http://www.melbournewater.com.au/waterdata/rainfallandriverleveldata/Pages/Rainfall-and-river-level-new.aspx>. It is advised that residents monitor the Bureau of Meteorology's website <http://www.bom.gov.au/> and the VicEmergency website <https://emergency.vic.gov.au/> for any thunderstorm, flood or severe weather warnings present for their area.

Areas of Flood Risk



Map Produced by VICSES March 2019

CITY OF GREATER DANDENONG

Version 3. March 2019

C5. Areas of flood risk around Dandenong and Dandenong North

- | | | | |
|---------------------------------|----------------------------------|------------------------|----------|
| Waterbody | Bus Route (PTV) | Telephone Exchange | Hospital |
| 1% AEP Riverine Flood Extent | Embankment | Police Station | |
| 1% AEP Flash Flood Extent | Levee | Community Centre | |
| Reserve / Park | Boundary for this Appendix | Power Terminal Station | |
| Commercial Precinct | Melbourne Water Stormwater Drain | Rain Gauge | |
| Melbourne Water Retarding Basin | River / Creek | Stream Level Gauge | |
| Drainage Pumping Station | Bicycle / Walking Trail | Municipal Offices | |
| State Emergency Service | Camp Ground | | |
| Ambulance Station | Fire Station | | |
| | Sewer Pumping Station | | |



This map publication is presented by the Victoria State Emergency Service for the purpose of disseminating emergency management information. The contents of the information have not been independently verified by the Victoria State Emergency Service. No liability is accepted for any damage, loss or injury caused by errors or omissions in this information or for any action taken by any person in reliance upon it.

Figure C5 – Areas of flood risk around Dandenong & Dandenong North in the City of Greater Dandenong
 Greater Dandenong Flood Emergency Plan – A Sub-Plan of the MEMPlan V3.0 April 2019

Properties at Flood Risk

Properties listed in the table below are at risk from flash flooding in Dandenong and Dandenong North. As more intelligence becomes available, this list may change. This table has been populated based on modelling work as part of the Dandenong Catchment Area (BMT WBM, March 2010) flood mapping and risk assessment program. Note that any multi-lot properties situated above ground floor likely impacted by isolation only with flooding on ground floor impacting access to common areas and/or carpark and storage facilities. Information on above ground-floor properties is not available in this list.

This Property Flood Risk Table is presented by the Victoria State Emergency Service for the purpose of disseminating emergency management information. The contents of the information have not been independently verified by the Victoria State Emergency Service. No liability is accepted for any damage, loss or injury caused by errors or omissions in this information or for any action taken by any person in reliance upon it.

Properties at risk from flash flooding in Dandenong and Dandenong North						
Residential			Commercial	Industrial	Rural	Public Use
Street No. at Risk in AEP Event			Address	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
20% AEP	5% AEP	1% AEP				
		✓	3 Ashby Drive	Dandenong North	Exells Drain	Flash
	✓	✓	2/41 Boyd Street	Dandenong North	McFees Drain	Flash
		✓	45 Boyd Street	Dandenong North	McFees Drain	Flash
	✓	✓	67 Boyd Street	Dandenong North	McFees Drain	Flash
	✓	✓	68 Carlton Road	Dandenong North	McFees Drain	Flash
		✓	76 Carlton Road	Dandenong North	McFees Drain	Flash
	✓	✓	80 Carlton Road	Dandenong North	McFees Drain	Flash
	✓	✓	85-87 Carlton Road	Dandenong North	McFees Drain	Flash
		✓	89-105 Carlton Road	Dandenong North	McFees Drain	Flash
✓	✓	✓	25 Cheltenham Road	Dandenong	Dandenong Creek Drain 2	Flash
✓	✓	✓	27 Cheltenham Road	Dandenong	Dandenong Creek Drain 2	Flash
✓	✓	✓	29-31 Cheltenham Road	Dandenong	Dandenong Creek Drain 2	Flash
✓	✓	✓	33 Cheltenham Road	Dandenong	Dandenong Creek Drain 2	Flash
✓	✓	✓	35 Cheltenham Road	Dandenong	Dandenong Creek Drain 2	Flash
	✓	✓	37-39 Cheltenham Road	Dandenong	Dandenong Creek Drain 2	Flash
	✓	✓	41-45 Cheltenham Road	Dandenong	Dandenong Creek Drain 2	Flash
	✓	✓	47-49 Cheltenham Road	Dandenong	Dandenong Creek Drain 2	Flash
		✓	20 Clow Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	1 Como Court	Dandenong North	McFees Drain	Flash
	✓	✓	5 Como Court	Dandenong North	McFees Drain	Flash
		✓	7 Como Court	Dandenong North	McFees Drain	Flash
	✓	✓	1/46 Dandenong Street	Dandenong	Dandenong Creek Drain 2	Flash
	✓	✓	2/46 Dandenong Street	Dandenong	Dandenong Creek Drain 2	Flash
	✓	✓	3/46 Dandenong Street	Dandenong	Dandenong Creek Drain 2	Flash
		✓	49 Dandenong Street	Dandenong	Dandenong Creek Drain 2	Flash
		✓	51 Dandenong Street	Dandenong	Dandenong Creek Drain 2	Flash
		✓	53 Dandenong Street	Dandenong	Dandenong Creek Drain 2	Flash
		✓	63-65 Dandenong Street	Dandenong North	McFees Drain	Flash
		✓	1 Dane Court	Dandenong	Dandenong Creek Drain 1	Flash

Properties at risk from flash flooding in Dandenong and Dandenong North

Properties at risk from flash flooding in Dandenong and Dandenong North						
Residential		Commercial		Industrial	Rural	Public Use
Street No. at Risk in AEP Event			Address	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
20% AEP	5% AEP	1% AEP				
		✓	145 Foster Street	Dandenong North	Exells Drain	Flash
✓	✓	✓	31 Francesco Drive	Dandenong North	McFees Drain	Flash
		✓	5 Gibb Street	Dandenong North	McFees Drain	Flash
	✓	✓	6 Gibb Street	Dandenong North	McFees Drain	Flash
	✓	✓	10 Gibb Street	Dandenong	Dandenong Creek Drain 2	Flash
		✓	5 Greaves Street	Dandenong	Dandenong Creek Drain 2	Flash
		✓	6/7 Greaves Street	Dandenong	Dandenong Creek Drain 2	Flash
	✓	✓	9/7 Greaves Street	Dandenong	Dandenong Creek Drain 2	Flash
		✓	7/9 Greaves Street	Dandenong	Dandenong Creek Drain 2	Flash
		✓	8/9 Greaves Street	Dandenong	Dandenong Creek Drain 2	Flash
		✓	11-13 Greaves Street	Dandenong North	McFees Drain	Flash
		✓	1/43 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	2/43 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	3/43 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	4/43 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	1/44 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	2/44 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	3/44 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	1/45 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	2/45 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	3/45 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	4/45 Hillside Avenue	Dandenong North	McFees Drain	Flash
	✓	✓	1/46 Hillside Avenue	Dandenong North	McFees Drain	Flash
	✓	✓	2/46 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	1/47 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	2/47 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	3/47 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	4/47 Hillside Avenue	Dandenong North	McFees Drain	Flash
	✓	✓	48 Hillside Avenue	Dandenong North	McFees Drain	Flash
	✓	✓	49 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	50 Hillside Avenue	Dandenong North	McFees Drain	Flash
✓	✓	✓	51 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	52 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	54 Hillside Avenue	Dandenong North	McFees Drain	Flash
	✓	✓	1/55-57 Hillside Avenue	Dandenong North	McFees Drain	Flash
	✓	✓	2/55-57 Hillside Avenue	Dandenong North	McFees Drain	Flash
	✓	✓	3/55-57 Hillside Avenue	Dandenong North	McFees Drain	Flash
✓	✓	✓	4/55-57 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	56 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	58 Hillside Avenue	Dandenong North	McFees Drain	Flash
✓	✓	✓	59 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	61 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	62 Hillside Avenue	Dandenong North	McFees Drain	Flash

Properties at risk from flash flooding in Dandenong and Dandenong North						
Residential		Commercial		Industrial	Rural	Public Use
Street No. at Risk in AEP Event			Address	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
20% AEP	5% AEP	1% AEP				
		✓	63 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	65 Hillside Avenue	Dandenong North	McFees Drain	Flash
		✓	66 Hillside Avenue	Dandenong North	Outlook Dr Drain	Flash
		✓	6 Hunter Street	Dandenong North	Outlook Dr Drain	Flash
		✓	7 Hunter Street	Dandenong North	Exells Drain	Flash
		✓	6 Huxley Avenue	Dandenong North	Exells Drain	Flash
	✓	✓	9 Huxley Avenue	Dandenong North	Exells Drain	Flash
	✓	✓	11 Huxley Avenue	Dandenong North	Exells Drain	Flash
		✓	12 Huxley Avenue	Dandenong North	Rings Drain	Flash
		✓	4 Jarvis Crescent	Dandenong North	Rings Drain	Flash
	✓	✓	6 Jarvis Crescent	Dandenong North	Rings Drain	Flash
	✓	✓	8 Jarvis Crescent	Dandenong North	Rings Drain	Flash
	✓	✓	10 Jarvis Crescent	Dandenong North	Rings Drain	Flash
	✓	✓	12 Jarvis Crescent	Dandenong North	Rings Drain	Flash
	✓	✓	14 Jarvis Crescent	Dandenong North	Rings Drain	Flash
		✓	16 Jarvis Crescent	Dandenong North	Rings Drain	Flash
		✓	18 Jarvis Crescent	Dandenong North	McFees Drain	Flash
		✓	23 Judith Street	Dandenong North	McFees Drain	Flash
		✓	25 Judith Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	1 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	1/1-7 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	2/1-7 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	3/1-7 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	4/1-7 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	5/1-7 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	6/1-7 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	2 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	4 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	8 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	9 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	11-13 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	1/11 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	2-3/11 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	15-23 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	1/20 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	2/20 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	1/24 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	2/24 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	3/24 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	25 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	25A Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	1-2/27 Langhorne Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	3/27 Langhorne Street	Dandenong North	Exells Drain	Flash

Properties at risk from flash flooding in Dandenong and Dandenong North						
Residential		Commercial		Industrial	Rural	Public Use
Street No. at Risk in AEP Event			Address	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
20% AEP	5% AEP	1% AEP				
✓	✓	✓	4-5/27D Langhorne Street	Dandenong North	Exells Drain	Flash
✓	✓	✓	29A Langhorne Street	Dandenong North	Exells Drain	Flash
	✓	✓	2 Lipton Drive	Dandenong North	Exells Drain	Flash
	✓	✓	15 Lipton Drive	Dandenong North	Exells Drain	Flash
	✓	✓	19 Lipton Drive	Dandenong North	Exells Drain	Flash
		✓	21 Lipton Drive	Dandenong North	Exells Drain	Flash
	✓	✓	23 Lipton Drive	Dandenong North	Exells Drain	Flash
	✓	✓	25 Lipton Drive	Dandenong North	Exells Drain	Flash
		✓	27 Lipton Drive	Dandenong North	Exells Drain	Flash
		✓	33 Lipton Drive	Dandenong North	Exells Drain	Flash
	✓	✓	46 Lipton Drive	Dandenong	Dandenong Creek Drain 1	Flash
		✓	48 Lipton Drive	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	51 Lipton Drive	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	196 Lonsdale Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	200-208 Lonsdale Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	222 Lonsdale Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	224 Lonsdale Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	236-242 Lonsdale Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	244 Lonsdale Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	246-248 Lonsdale Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	250 Lonsdale Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	252 Lonsdale Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	280 Lonsdale Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	347 Lonsdale Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	349 Lonsdale Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	351 Lonsdale Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	367 Lonsdale Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	369 Lonsdale Street	Dandenong North	Rings Drain	Flash
		✓	371 Lonsdale Street	Dandenong North	Rings Drain	Flash
		✓	373 Lonsdale Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	2 Mcalpine Court	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	3 Mcalpine Court	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	8-10 Mccrae Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	12 Mccrae Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	14 Mccrae Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	16 Mccrae Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	18 Mccrae Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	20-22 Mccrae Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	24 Mccrae Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	44/26 Mccrae Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	45/28 Mccrae Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	10/30 Mccrae Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	11/32-34 Mccrae Street	Dandenong	Dandenong Creek Drain 1	Flash

Properties at risk from flash flooding in Dandenong and Dandenong North

Properties at risk from flash flooding in Dandenong and Dandenong North						
Residential			Commercial	Industrial	Rural	Public Use
Street No. at Risk in AEP Event			Address	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
20% AEP	5% AEP	1% AEP				
✓	✓	✓	13A-13B/36 Mccrae Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	13C/36 Mccrae Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	14/38 Mccrae Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	5/42 Mccrae Street	Dandenong North	McFees Drain	Flash
✓	✓	✓	6/44 Mccrae Street	Dandenong North	McFees Drain	Flash
✓	✓	✓	7/46 Mccrae Street	Dandenong North	McFees Drain	Flash
	✓	✓	98-100 Mcfees Road	Dandenong North	McFees Drain	Flash
✓	✓	✓	102 Mcfees Road	Dandenong North	McFees Drain	Flash
✓	✓	✓	104 Mcfees Road	Dandenong North	McFees Drain	Flash
	✓	✓	106 Mcfees Road	Dandenong North	Outlook Dr Drain	Flash
		✓	108 Mcfees Road	Dandenong North	Outlook Dr Drain	Flash
		✓	110 Mcfees Road	Dandenong North	Outlook Dr Drain	Flash
✓		✓	178 Outlook Drive	Dandenong North	Outlook Dr Drain	Flash
✓	✓	✓	182 Outlook Drive	Dandenong North	Outlook Dr Drain	Flash
✓	✓	✓	184 Outlook Drive	Dandenong North	Outlook Dr Drain	Flash
		✓	188 Outlook Drive	Dandenong North	Outlook Dr Drain	Flash
		✓	193 Outlook Drive	Dandenong North	Outlook Dr Drain	Flash
		✓	204 Outlook Drive	Dandenong North	Outlook Dr Drain	Flash
	✓	✓	208 Outlook Drive	Dandenong North	Outlook Dr Drain	Flash
	✓	✓	210 Outlook Drive	Dandenong North	Outlook Dr Drain	Flash
	✓	✓	212 Outlook Drive	Dandenong North	Outlook Dr Drain	Flash
	✓	✓	214 Outlook Drive	Dandenong North	McFees Drain	Flash
	✓	✓	216 Outlook Drive	Dandenong	Dandenong Creek Drain 1	Flash
		✓	218 Outlook Drive	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	25 Pitman Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	9-11 Pultney Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	1/13-15 Pultney Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	2/13-15 Pultney Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	17 Pultney Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	19 Pultney Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	21 Pultney Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	23-25 Pultney Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	27-29 Pultney Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	1/31 Pultney Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	2/31 Pultney Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	3/31 Pultney Street	Dandenong North	Exells Drain	Flash
		✓	4/31 Pultney Street	Dandenong North	McFees Drain	Flash
		✓	5/31 Pultney Street	Dandenong North	McFees Drain	Flash
		✓	6/31 Pultney Street	Dandenong North	McFees Drain	Flash
		✓	25 Riddell Street	Dandenong North	Exells Drain	Flash
		✓	37 Simpson Drive	Dandenong North	Exells Drain	Flash
	✓	✓	48 Simpson Drive	Dandenong North	Exells Drain	Flash

Properties at risk from flash flooding in Dandenong and Dandenong North						
Residential		Commercial	Industrial	Rural	Public Use	
Street No. at Risk in AEP Event			Address	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
20% AEP	5% AEP	1% AEP				
		✓	50 Simpson Drive	Dandenong	Dandenong Creek Drain 2	Flash
	✓	✓	82 Somerset Drive	Dandenong	Dandenong Creek Drain 2	Flash
		✓	84 Somerset Drive	Dandenong North	Exells Drain	Flash
	✓	✓	112A Somerset Drive	Dandenong North	Exells Drain	Flash
✓	✓	✓	1 Station Street	Dandenong North	Exells Drain	Flash
✓	✓	✓	3 Station Street	Dandenong North	Exells Drain	Flash
	✓	✓	325 Stud Road	Dandenong North	Exells Drain	Flash
		✓	14 Thornton Court	Dandenong North	Exells Drain	Flash
✓	✓	✓	15 Thornton Court	Dandenong North	Exells Drain	Flash
✓	✓	✓	16 Thornton Court	Dandenong North	Exells Drain	Flash
✓	✓	✓	17 Thornton Court	Dandenong North	Outlook Dr Drain	Flash
✓	✓	✓	18 Thornton Court	Dandenong North	Outlook Dr Drain	Flash
		✓	19 Thornton Court	Dandenong	Dandenong Creek Drain 1	Flash
		✓	22 Thornton Court	Dandenong	Dandenong Creek Drain 1	Flash
		✓	5 Towong Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	8 Towong Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	104 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	104A Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	106-114 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	116 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	118-120 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	122 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
		✓	124 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	6/127 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	128 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	128-130 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	7/129 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	1/131-147 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	2/131-147 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	3/131-147 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	4/131-147 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	5/131-147 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	6/131-147 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
	✓	✓	6/131-147 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
☐	☐	✓	132 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
☐	✓	✓	138 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
☐	✓	✓	140-144 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
☐	✓	✓	146-148 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
☐	✓	✓	1/146-148 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
☐	✓	✓	2-3/146-148 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
☐	✓	✓	4/146-148 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
☐	✓	✓	5-6/146-148 Walker	Dandenong	Dandenong Creek Drain 1	Flash

Properties at risk from flash flooding in Dandenong and Dandenong North						
Residential		Commercial		Industrial	Rural	Public Use
Street No. at Risk in AEP Event			Address	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
20% AEP	5% AEP	1% AEP				
			Street			
☐	✓	✓	7/146-148 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	1/150 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	2/152 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	3/154 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
✓	✓	✓	4/156-158 Walker Street	Dandenong	Dandenong Creek Drain 1	Flash
60	140	247				

Table C5.3 – Properties at risk of flash flooding in Dandenong and Dandenong North

Isolation

No major isolation risks exist for areas around Dandenong and Dandenong North during a 1% AEP (100yr ARI) event. Some localised short-duration isolation may occur due to flash flooding.

Essential Infrastructure

During an event, see the Public Transport Victoria's Website for details on delays or alterations to services. <http://ptv.vic.gov.au/live-travel-updates/>. A map of Public Transport routes within the City of Greater Dandenong is available via the website at: https://static.ptv.vic.gov.au/siteassets/Maps/Localities/PDFs/18_Greater_Dandenong_LAM.pdf

Apart from the roads outlined below, all other essential infrastructure and services areas around Dandenong and Dandenong North are expected to remain unaffected by flooding during a 1% AEP (100yr ARI) event.

Road Closures

The following roads are subject to closure during flooding around Dandenong and Dandenong North. Check the VicRoads website for more details: <https://traffic.vicroads.vic.gov.au/>

VicRoads Roads flooded in a 1% AEP (100yr ARI) event
<ul style="list-style-type: none"> Cheltenham Road, Dandenong near Dandenong Railway Station Princes Highway, Dandenong at James Street

Table C5.4 – VicRoads possible road closures during a flooding event

Greater Dandenong City Council Roads flooded in a 1% AEP (100yr ARI) event			
DANDENONG		DANDENONG NORTH	
• Brooklyn Avenue	• Godfrey Crescent	• Boyd Street	• Gibb Street
• Burrows Avenue	• Gooding Court	• Burchall Grove	• Hillside Avenue
• Carson Street	• Greaves Street	• Como Court	• Jarvis Crescent
• Cheltenham Road	• Princes Highway	• Dane Court	• Judith Street
• Dandenong Street	• Railway Parade	• Deidre Street	• Loch Road
• David Street	• Raymond Street	• Devira Street	• Outlook Drive
• Dingley Avenue	• Ross Street	• Dobsons Court	• Simpson Drive
• Eckford Street	• Suzanne Street	• Fraser Street	• Somerset Drive
• Gladstone Road	• Thomas Street		
	• Vizard Street		

Table C5.5 – Greater Dandenong City Council possible road closures during a flooding event

Flood Mitigation

Retarding Basins

Greater Dandenong City Council Retarding Basin	Suburb	Type	Melway Reference
Louis Twohig Reserve	Dandenong North	Valve Operation	90 E1
Thornton Court Reserve	Dandenong North	Gravity Flow	81 D9
Turner Court Reserve	Dandenong	Gravity Flow	90 G4

Table C5.6 – Greater Dandenong City Council Retarding Basins around Dandenong and Dandenong North

Levees

Levee	Reach	Side	Levee Height	Levee Length	Expected Level of Protection	ANCOLD Hazard Rating	Consequences of Failure	Melway Reference
Dandenong Creek	Heatherton Road (Ross St to David St)	North	3.0m	0.2km	1% AEP flood event, with approx. 1m freeboard	Very Low	Nil consequence expected	90 H5
Dandenong Creek	Heatherton Road (David St to Jesson St)	North	3.0m	0.3km	1% AEP flood event, with approx. 1m freeboard	Very Low	Nil consequence expected	90 H5

Table C5.7 – Melbourne Water Levees around Dandenong and Dandenong North

Sewerage Infrastructure

Sewerage Infrastructure of note during a severe flood event located around Dandenong and Dandenong North is contained within the following table.

Sewer Pumping Stations

Sewerage Pumping Station	On Drain / Waterway	Bank / Side of Waterway	Operator	Location	Melway Reference
Heart Street	Dandenong Creek	North	South East Water	Woodcock Reserve, Heart Street, Dandenong	90 C9
Pinewood Avenue	Local Drainage	-	South East Water	62 Laemmle Street, Dandenong North	81 A12

Table C5.8 – Sewer Pumping Stations within Dandenong and Dandenong North

Command, Control and Coordination

VICSES will assume overall control of the response to flood incidents. Other agencies will be requested to support operations as detailed in this Plan. Control and coordination of a flood incident shall be carried out at the lowest effective level and in accordance with the State Emergency Response Plan (EMMV Part 3). During significant events, VICSES will conduct incident management using multi-agency resources.

Flood Impacts & Operational Considerations (Intelligence Cards)

The tables on the following pages provide a breakdown of the possible consequences of flash flooding within Dandenong and Dandenong North at various rain totals. These tables are to be used only as a guide as no two floods at a location will have identical impacts.

Intelligence Cards have been included for the following locations:

- Dandenong and Dandenong North Stormwater Drains

FLOOD INTELLIGENCE CARD – DANDENONG & DANDENONG NORTH STORMWATER DRAINS (UNGAUGED)

Version 3 – April 2019



Note: flood intelligence records are approximations. This is because no two floods at a location, even if they peak at the same height, will have identical impacts. Flood intelligence cards detail the relationship between flood magnitude and flood consequences. More details about flood intelligence and its use can be found in the Australian Emergency Management Manuals flood series.

This Flood Intelligence Card publication is presented by the Victoria State Emergency Service for the purpose of disseminating emergency management information. The contents of the information have not been independently verified by the Victoria State Emergency Service. No liability is accepted for any damage, loss or injury caused by errors or omissions in this information or for any action taken by any person in reliance upon it.

CLOSEST RAIN GAUGE	Dandenong Creek at Police Road Retarding Basin, Rowville
LOCATION	North side of the Retarding Basin Embankment
MELWAY REF:	81 E6

GAUGE NUMBER	228368A
GAUGE TYPE	Rain
TELEMETRIC/MANUAL	Telemetric

Design Rainfall Depths (mm) – Indication of Possible Flooding	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
11mm in 10 mins; 19mm in 30 mins; 24mm in 1 hour; 30mm in 2 hours; 34mm in 3 hours; or 43mm in 6 hours Note: rainfall depths are a very rough method of estimating flood events and have been used due to the ungauged nature of the catchment. This should be used as a guide only.	20% AEP (5 year ARI)	Properties at Flood Risk (Over-Floor) 60 Properties in Total Dandenong Creek Drain 1 <ul style="list-style-type: none"> 11-13, 1/11, 2-3/11, 15-23, 25, 25A, 1-2/27, 3/27, 4-5/27D & 29A Langhorne Street, Dandenong 196, 200-208, 222, 224, 236-242, 244 & 246-248 Lonsdale Street, Dandenong 12, 14, 16, 18, 20-22, 44/26, 45/28, 10/30, 11/32-34, 13A-13B/36, 13C/36, 14/38, 5/42, 6/44 & 7/46 McCrae Street, Dandenong 104, 104A, 6/127, 7/129, 1/150, 2/152, 3/154 & 4/156-158 Walker Street, Dandenong Dandenong Creek Drain 2 <ul style="list-style-type: none"> 25, 27, 29-31, 33 & 35 Cheltenham Road, Dandenong 1 & 3 Station Street, Dandenong Exells Drain <ul style="list-style-type: none"> 31 Francesco Drive, Dandenong North 15, 16, 17 & 18 Thornton Court, Dandenong North McFees Drain <ul style="list-style-type: none"> 51, 4/55-57 & 59 Hillside Avenue, Dandenong North 102 & 104 McFees Road, Dandenong North 25 Pitman Street, Dandenong North 48 Simpson Drive, Dandenong North 	

Design Rainfall Depths (mm) – Indication of Possible Flooding	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations						
		<p>Outlook Drive Drain</p> <ul style="list-style-type: none"> 182 & 184 Outlook Drive, Dandenong North <p>Community Infrastructure Flooded</p> <ul style="list-style-type: none"> Lois Twohig Reserve, McFees Road, Dandenong North St John’s Catholic Regional College, Caroline Street, Dandenong Areas of the Dandenong CBD affected by flooding including Dandenong Hub, Dandenong Arcade and Palm Plaza <p>Water Over Road (over 300mm depth)</p> <table border="0"> <tr> <td>DANDENONG</td> <td>DANDENONG NORTH</td> </tr> <tr> <td>Cheltenham Road</td> <td>Dane Court</td> </tr> <tr> <td>Dandenong Street</td> <td></td> </tr> </table>	DANDENONG	DANDENONG NORTH	Cheltenham Road	Dane Court	Dandenong Street		
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<p>14mm in 10 mins; 23mm in 30 mins; 29mm in 1 hour; 35mm in 2 hours; 40mm in 3 hours; or 50mm in 6 hours</p> <p>Note: rainfall depths are a very rough method of estimating flood events and have been used due to the ungagged nature of the catchment. This should be used as a guide only.</p>	<p>10% AEP (10 year ARI)</p>	<p>Properties at Flood Risk (Over-Floor)</p> <p>104 Properties in Total</p> <p>Dandenong Creek Drain 1</p> <ul style="list-style-type: none"> 11-13, 1/11, 2-3/11, 15-23, 25, 25A, 1-2/27, 3/27, 4-5/27D & 29A Langhorne Street, Dandenong 196, 200-208, 222, 224, 236-242, 244, 246-248 & 250 Lonsdale Street, Dandenong 8-10, 12, 14, 16, 18, 20-22, 44/26, 45/28, 10/30, 11/32-34, 13A-13B/36, 13C/36, 14/38, 5/42, 6/44 & 7/46 McCrae Street, Dandenong 1/13-15, 2/13-15 Pultney Street, Dandenong 104, 104A, 6/127, 7/129, Shops 1-11/131-147, 138, 140-144, 1/146-148, 2-3/146-148, 4/146-148, 5-6/146-148, 7/146-148, 1/150, 2/152, 3/154 & 4/156-158 Walker Street, Dandenong <p>Dandenong Creek Drain 2</p> <ul style="list-style-type: none"> 25, 27, 29-31, 33 & 35 Cheltenham Road, Dandenong Factories 2-3/46 Dandenong Street, Dandenong 1 & 3 Station Street, Dandenong <p>Exells Drain</p> <ul style="list-style-type: none"> 31 Francesco Drive, Dandenong North 9 & 11 Huxley Avenue, Dandenong North 25, 46 & 51 Lipton Drive, Dandenong North 82 & 112A Somerset Drive, Dandenong North 325 Stud Road, Dandenong North 15, 16, 17 & 18 Thornton Court, Dandenong North <p>McFees Drain</p>							

Design Rainfall Depths (mm) – Indication of Possible Flooding	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations																		
		<ul style="list-style-type: none"> • 2/41 Boyd Street, Dandenong North • 68 & 80 Carlton Road, Dandenong North • 10 Gibb Street, Dandenong North • 49, 51, Units 1-4/55-57 & 59 Hillside Avenue, Dandenong North • 102 & 104 McFees Road, Dandenong North • 25 Pitman Street, Dandenong North • 48 Simpson Drive, Dandenong North <p>Outlook Drive Drain</p> <ul style="list-style-type: none"> • 182 & 184 Outlook Drive, Dandenong North • 8 Towong Street, Dandenong North <p>Rings Drain</p> <ul style="list-style-type: none"> • 10, 12 & 14 Jarvis Crescent, Dandenong North <p>Community Infrastructure Flooded</p> <ul style="list-style-type: none"> • Lois Twohig Reserve, McFees Road, Dandenong North • St John's Catholic Regional College, Caroline Street, Dandenong • Areas of the Dandenong CBD affected by flooding including Dandenong Hub, Dandenong Arcade and Palm Plaza <p>Water Over Road (over 300mm depth)</p> <table border="0"> <tr> <td>DANDENONG</td> <td></td> <td>DANDENONG NORTH</td> </tr> <tr> <td>Burrows Avenue</td> <td>Greaves Street</td> <td>Dane Court</td> </tr> <tr> <td>Cheltenham Road</td> <td>Ross Street</td> <td>Gibb Street</td> </tr> <tr> <td>Dandenong Street</td> <td>Suzanne Street</td> <td>Somerset Drive</td> </tr> <tr> <td>David Street</td> <td>Thomas Street</td> <td></td> </tr> <tr> <td>Gooding Court</td> <td></td> <td></td> </tr> </table>	DANDENONG		DANDENONG NORTH	Burrows Avenue	Greaves Street	Dane Court	Cheltenham Road	Ross Street	Gibb Street	Dandenong Street	Suzanne Street	Somerset Drive	David Street	Thomas Street		Gooding Court			
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<p>16mm in 10 mins; 27mm in 30 mins; 33mm in 1 hour; 41mm in 2 hours; 46mm in 3 hours; or 57mm in 6 hours</p> <p>Note: rainfall depths are a very rough method of estimating flood events and have been used due to the ungagged nature of the catchment. This should be used as a guide only.</p>	<p>5% AEP (20 year ARI)</p>	<p>Properties at Flood Risk (Over-Floor)</p> <p>140 Properties in Total</p> <p>Dandenong Creek Drain 1</p> <ul style="list-style-type: none"> • 1, Shops 1-6/1-7, 11-13, 1/11, 2-3/11, 15-23, 25, 25A, 1-2/27, 3/27, 4-5/27D & 29A Langhorne Street, Dandenong • 196, 200-208, 222, 224, 236-242, 244, 246-248, 250 & 252 Lonsdale Street, Dandenong • 8-10, 12, 14, 16, 18, 20-22, 24, 44/26, 45/28, 10/30, 11/32-34, 13A-13B/36, 13C/36, 14/38, 5/42, 6/44 & 7/46 McCrae Street, Dandenong • 1/13-15, 2/13-15 Pultney Street, Dandenong • 104, 104A, 6/127, 128, 128-130, 7/129, Shops 1-11/131-147, 138, 140-144, 1/146-148, 2-3/146-148, 4/146-148, 5-6/146-148, 7/146-148, 1/150, 2/152, 3/154 & 4/156-158 Walker Street, Dandenong <p>Dandenong Creek Drain 2</p> <ul style="list-style-type: none"> • 25, 27, 29-31, 33, 35, 37-39, 41-45 & 47-49 Cheltenham Road, Dandenong • Factories 1-3/46 Dandenong Street, Dandenong 																			

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		<ul style="list-style-type: none"> • 9/7 Greaves Street, Dandenong • 1 & 3 Station Street, Dandenong Exells Drain • 31 Francesco Drive, Dandenong North • 9 & 11 Huxley Avenue, Dandenong North • 2, 15, 19, 23, 25, 46 & 51 Lipton Drive, Dandenong North • 82 & 112A Somerset Drive, Dandenong North • 325 Stud Road, Dandenong North • 15, 16, 17 & 18 Thornton Court, Dandenong North McFees Drain • 2/41 & 67 Boyd Street, Dandenong North • 68, 80 & 85-87 Carlton Road, Dandenong North • 5 Como Court, Dandenong North • 6, & 10 Gibb Street, Dandenong North • Units 1-2/46, 48, 49, 51, Units 1-4/55-57 & 59 Hillside Avenue, Dandenong North • 98-100, 102, 104 & 106 McFees Road, Dandenong North • 25 Pitman Street, Dandenong North • 48 Simpson Drive, Dandenong North Outlook Drive Drain • 182, 184, 208, 210, 212, 214 & 216 Outlook Drive, Dandenong North • 8 Towong Street, Dandenong North Rings Drain • 6, 8, 10, 12 & 14 Jarvis Crescent, Dandenong North • 2 & 3 McAlpine Court, Dandenong North Community Infrastructure Flooded • Outlook Gardens Hostel & Retirement Village on Outlook Drive, Dandenong North • Lois Twohig Reserve, McFees Road, Dandenong North • Happy Kids Child Care Centre, Gladstone Road, Dandenong North • Chisholm Institute of TAFE on Stud Road, Dandenong likely flooded around car parks • St John's Catholic Regional College, Caroline Street, Dandenong • Areas of the Dandenong CBD affected by flooding including Dandenong Hub, Dandenong Arcade and Palm Plaza Water Over Road (over 300mm depth) <table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;">DANDENONG</th> <th colspan="2" style="text-align: left;">DANDENONG NORTH</th> </tr> </thead> <tbody> <tr> <td>Burrows Avenue</td> <td>Princes Highway</td> <td>Boyd Street</td> <td>Gibb Street</td> </tr> <tr> <td>Cheltenham Road</td> <td>Ross Street</td> <td>Burchall Grove</td> <td>Hillside Avenue</td> </tr> <tr> <td>Dandenong Street</td> <td>Suzanne Street</td> <td>Como Court</td> <td>Outlook Drive</td> </tr> <tr> <td>David Street</td> <td>Thomas Street</td> <td>Dane Court</td> <td>Somerset Drive</td> </tr> </tbody> </table>	DANDENONG		DANDENONG NORTH		Burrows Avenue	Princes Highway	Boyd Street	Gibb Street	Cheltenham Road	Ross Street	Burchall Grove	Hillside Avenue	Dandenong Street	Suzanne Street	Como Court	Outlook Drive	David Street	Thomas Street	Dane Court	Somerset Drive	
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<p>20mm in 10 mins; 32mm in 30 mins; 40mm in 1 hour; 48mm in 2 hours; 54mm in 3 hours; or 67mm in 6 hours</p> <p>Note: rainfall depths are a very rough method of estimating flood events and have been used due to the ungagged nature of the catchment. This should be used as a guide only.</p>	<p>2% AEP (50 year ARI)</p>	<p>Gooding Court Greaves Street</p>	<p>Vizard Street</p>	<p>Deidre Street</p>	
		<p>Properties at Flood Risk (Over-Floor)</p> <p>195 Properties in Total</p> <p>Dandenong Creek Drain 1</p> <ul style="list-style-type: none"> • 1, Shops 1-6/1-7, 11-13, 1/11, 2-3/11, 15-23, 1/20, 2/20, 25, 25A, 1-2/27, 3/27, 4-5/27D & 29A Langhorne Street, Dandenong • 196, 200-208, 222, 224, 236-242, 244, 246-248, 250 & 252 Lonsdale Street, Dandenong • 8-10, 12, 14, 16, 18, 20-22, 24, 44/26, 45/28, 10/30, 11/32-34, 13A-13B/36, 13C/36, 14/38, 5/42, 6/44 & 7/46 McCrae Street, Dandenong • 1/13-15, 2/13-15, 17, 19, 21, 23-25 & 27-29 Pultney Street, Dandenong • 104, 104A, 106-114, 118-120, 122, 124, 6/127, 128, 128-130, 7/129, Shops 1-11/131-147, 132, 138, 140-144, 1/146-148, 2-3/146-148, 4/146-148, 5-6/146-148, 7/146-148, 1/150, 2/152, 3/154 & 4/156-158 Walker Street, Dandenong <p>Dandenong Creek Drain 2</p> <ul style="list-style-type: none"> • 25, 27, 29-31, 33, 35, 37-39, 41-45 & 47-49 Cheltenham Road, Dandenong • Factories 1-3/46, 53 & 63-65 Dandenong Street, Dandenong • 5, 6/7, 9/7, 7/9, 8/9 & 11-13 Greaves Street, Dandenong • 1 & 3 Station Street, Dandenong <p>Exells Drain</p> <ul style="list-style-type: none"> • 31 Francesco Drive, Dandenong North • 6, 9, 11 & 12 Huxley Avenue, Dandenong North • 2, 15, 19, 21, 23, 25, 27, 33, 46 & 51 Lipton Drive, Dandenong North • 82 & 112A Somerset Drive, Dandenong North • 325 Stud Road, Dandenong North • 14, 15, 16, 17, 18, 19 & 22 Thornton Court, Dandenong North <p>McFees Drain</p> <ul style="list-style-type: none"> • 2/41 & 67 Boyd Street, Dandenong North • 68, 76, 80, 85-87 & 89-105 Carlton Road, Dandenong North • 1, 5 & 7 Como Court, Dandenong North • 1 Dane Court, Dandenong North • 6, & 10 Gibb Street, Dandenong North • Units 1-4/45, Units 1-2/46, Units 1-4/47, 48, 49, 50, 51, 52, 54, Units 1-4/55-57, 56, 58 & 59 Hillside Avenue, Dandenong North • 98-100, 102, 104, 106, 108 & 110 McFees Road, Dandenong North • 25 Pitman Street, Dandenong North • 48 Simpson Drive, Dandenong North <p>Outlook Drive Drain</p> <ul style="list-style-type: none"> • 178, 182, 184, 204, 208, 210, 212, 214, 216 & 218 Outlook Drive, Dandenong North 			

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<p>23mm in 10 mins; 37mm in 30 mins; 45mm in 1 hour; 54mm in 2 hours; 60mm in 3 hours; or 75mm in 6 hours</p> <p>Note: rainfall depths are a very rough method of estimating flood events and have been used due to the ungagged nature of the catchment. This should be used as a</p>	<p>1% AEP (100 year ARI)</p>	<p>Properties at Flood Risk (Over-Floor)</p> <p>247 Properties in Total</p> <p>Dandenong Creek Drain 1</p> <ul style="list-style-type: none"> 20 Clow Street, Dandenong 145 Foster Street, Dandenong 1, Shops 1-6/1-7, 2, 4, 8, 9, 11-13, 1/11, 2-3/11, 15-23, 1/20, 2/20, Shops 1-3/24, 25, 25A, 1-2/27, 3/27, 4-5/27D & 29A Langhorne Street, Dandenong 196, 200-208, 222, 224, 236-242, 244, 246-248, 250, 252, 280, 347, 349, 351, 367, 369, 371 & 373 Lonsdale Street, Dandenong 8-10, 12, 14, 16, 18, 20-22, 24, 44/26, 45/28, 10/30, 11/32-34, 13A-13B/36, 13C/36, 14/38, 5/42, 6/44 & 7/46 McCrae Street, Dandenong 9-11, 1/13-15, 2/13-15, 17, 19, 21, 23-25, 27-29 & Shops 1-6/31 Pultney Street, Dandenong 104, 104A, 106-114, 116, 118-120, 122, 124, 6/127, 128, 128-130, 7/129, Shops 1-11/131-147, 132, 138, 140-144, 1/146-148, 2-3/146-148, 4/146-148, 5-6/146-148, 																																									

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Table C5.9 – Breakdown of possible consequences at various rainfall intensities within Dandenong and Dandenong North with operational considerations

APPENDIX D - FLOOD EVACUATION ARRANGEMENTS

Phase 1 - Decision to Evacuate

The Incident Controller may make the decision to evacuate an at-risk community under the following circumstances:

- Properties are likely to become inundated;
- Properties are likely to become isolated and occupants are not suitable for isolated conditions;
- Public health is at threat as a consequence of flooding and evacuation is considered the most effective risk treatment. This is the role of the Health Commander of the incident to assess and manage. Refer to the State Health Emergency Response Plan (SHERP) for details);
- Essential services have been damaged and are not available to a community and evacuation is considered the most effective risk treatment.

The following should be considered when planning for evacuation:

- Anticipated flood consequences and their timing and reliability of predictions;
- Size and location of the community to be evacuated;
- Likely duration of evacuation;
- Forecast weather;
- Flood Models;
- Predicted timing of flood consequences;
- Time required to conduct the evacuation;
- Time available to conduct the evacuation;
- Evacuation priorities and evacuation planning arrangements;
- Access and egress routes available and their potential flood liability;
- Current and likely future status of essential infrastructure;
- Resources required to conduct the evacuation;
- Resources available to conduct the evacuation;
- Shelter including Emergency Relief Centres, Assembly Areas etc.;
- Vulnerable people and facilities;
- Transportation;
- Registration
- People of CALD background and transient populations;
- Safety of emergency service personnel;
- Different stages of an evacuation process.

The decision to evacuate is to be made in consultation with the MERO, MERC, DHS, Health Commander and other key agencies and expert advice (CMA's and Flood Intelligence specialists).

Within the City of Greater Dandenong there are currently no pre-determined triggers for evacuation.

Phase 2 – Warning

Warnings may include a warning to prepare to evacuate and a warning to evacuate immediately. Once the decision to evacuate has been made, the at-risk community will be warned to evacuate. Evacuation warnings can be disseminated via methods listed in part 3 of this plan.

Evacuation warning messages will be developed and issued by VICSES in consultation with the MERO, MERC, DHS and other key agencies and expert advice (CMA's and Flood Intelligence specialists).

Phase 3 – Withdrawal

Withdrawal will be controlled by VICPOL. VICSES will provide advice regarding most appropriate evacuation routes and locations for at-risk communities to evacuate to, etc.

VICSES, CFA, AV and Local Government will provide resources where available to support VICPOL/VICROADS with route control and may assist VICPOL in arranging evacuation transportation.

VICPOL will control security of evacuated areas.

Evacuees will be encouraged to move using their own transport where possible. Transport for those without vehicles or other means will be arranged.

Possible Evacuation Routes to be used: **None identified currently.**

Special needs groups will be/are identified in Council's 'residents at risk' register. This can be done through community network organisations. Further information on the City of Greater Dandenong 'residents at risk' register can be obtained from

Phase 4 – Shelter

Relief Centres and/or assembly areas which cater for people's basic needs for floods may be established to meet the immediate needs of people affected by flooding. The relief centres are listed in the MEMPlan

VICPOL in consultation with VICSES will liaise with Local Government and DHS (where regional coordination is required) via the relevant control centre to plan for the opening and operation of relief centres. This can best be achieved through the Emergency Management Team (EMT).

Animal Shelter

Animal shelter compounds will be established for domestic pets and companion animals of evacuees. These facilities are outlined in the MEMP.

Caravans

Caravans maybe evacuated to the following locations:

Sector	Caravan evacuation location (include address)	Comments

Phase 5 – Return

Return will be consistent with the Strategic Plan for the Return of Community

The Incident Controller in consultation with VICPOL will determine when it is safe for evacuees to return to their properties and will arrange for the notification of the community.

VicPol will manage the return of evacuated people with the assistance of other agencies as required.

Considerations for deciding whether to evacuate include:

- Current flood situation;
- Status of flood mitigation systems;
- Size and location of the community;
- Access and egress routes available and their status;
- Resources required to coordinate the return;
- Special needs groups;
- Forecast weather;
- Transportation particularly for people without access to transport

Disruption to Services

Disruption to a range of services can occur in the event of a flood. This may include road closures affecting school bus routes, water treatment plant affecting potable water supplies etc.

Currently no services identified for long term significant disruption. Further work by the Storm Flood Subcommittee will investigate this area further

Service	Impact	Trigger Point for action	Strategy/Temporary Measures

Essential Community Infrastructure and Property Protection

Essential Community Infrastructure and properties (e.g. residences, businesses, roads, power supply etc.) that require protection are:

Work is being undertaken by the Storm Flood subcommittee to investigate and identify any assets that fall under this.

Facility	Impact	Trigger Point for action	Strategy/Temporary Measures

City of Greater Dandenong may establish a sandbag collection point if required during a flood event. Details of the collection point will be made available to the public when and if established.

Rescue

The following resources are available within City of Greater Dandenong to assist with rescue operations:

Nil Identified at time of publication

Known high-risk areas/communities (i.e. low-lying islands) where rescues might be required include:

Nil Identified at time of publication

APPENDIX E - FLOOD WARNING SYSTEMS

Flood Warning

Flood Warning products and Flood Class Levels can be found on the BoM website. Flood Warning Products include Severe Thunderstorm Warnings, Severe Weather Warnings, Flood Watches and Flood Warnings.

Flood Bulletins

VICSES distributes flood emergency information to the media through “Flood Bulletins”. Flood Bulletins provide BoM Flood Warning information as well as information regarding possible flood consequences and safety advice, not contained in BoM Flood Warning products. VICSES uses the title Flood bulletin to ensure emphasis is placed upon BoM Flood Warning product titles.

The relevant VICSES Region Headquarters or the established ICC will normally be responsible for drafting, authorizing and issuing issue Flood Bulletins, using the One Source, One Message system.

Flood Bulletins should refer to the warning title within the Bulletin header, for example Flood Bulletin for Major Flood Warning on Yarra River.

Flood Bulletins should follow the following structure

- What is the current flood situation;
- What is the predicted flood situation;
- What are the likely flood consequences;
- What should the community do in response to flood warnings;
- Where to seek further information;
- Who to call if emergency assistance is required.

It is important that the description of the predicted flood situation is consistent with and reflects the relevant BoM Flood Warning.

Flood Bulletins should be focused on specific gauge (or in the absence of gauges, catchment) reference areas, that is the area in which flood consequences specifically relate to the relevant flood gauge.

Flood Bulletins should be prepared and issued after receipt of each Flood Watch and Flood Warning from the BoM, or after Severe Weather or Thunderstorm Warnings indicating potential for severe flash flooding.

To ensure flood bulletins are released in a timely manner, standardised flood bulletins may be drafted based on different scenarios, prior to events occurring. The standardised flood bulletins can then be adapted to the specifics of the event occurring or predicted to occur.

Local Flood Warning System Arrangements

There are no local flood warning arrangements within the City of Greater Dandenong

APPENDIX F – MAPS

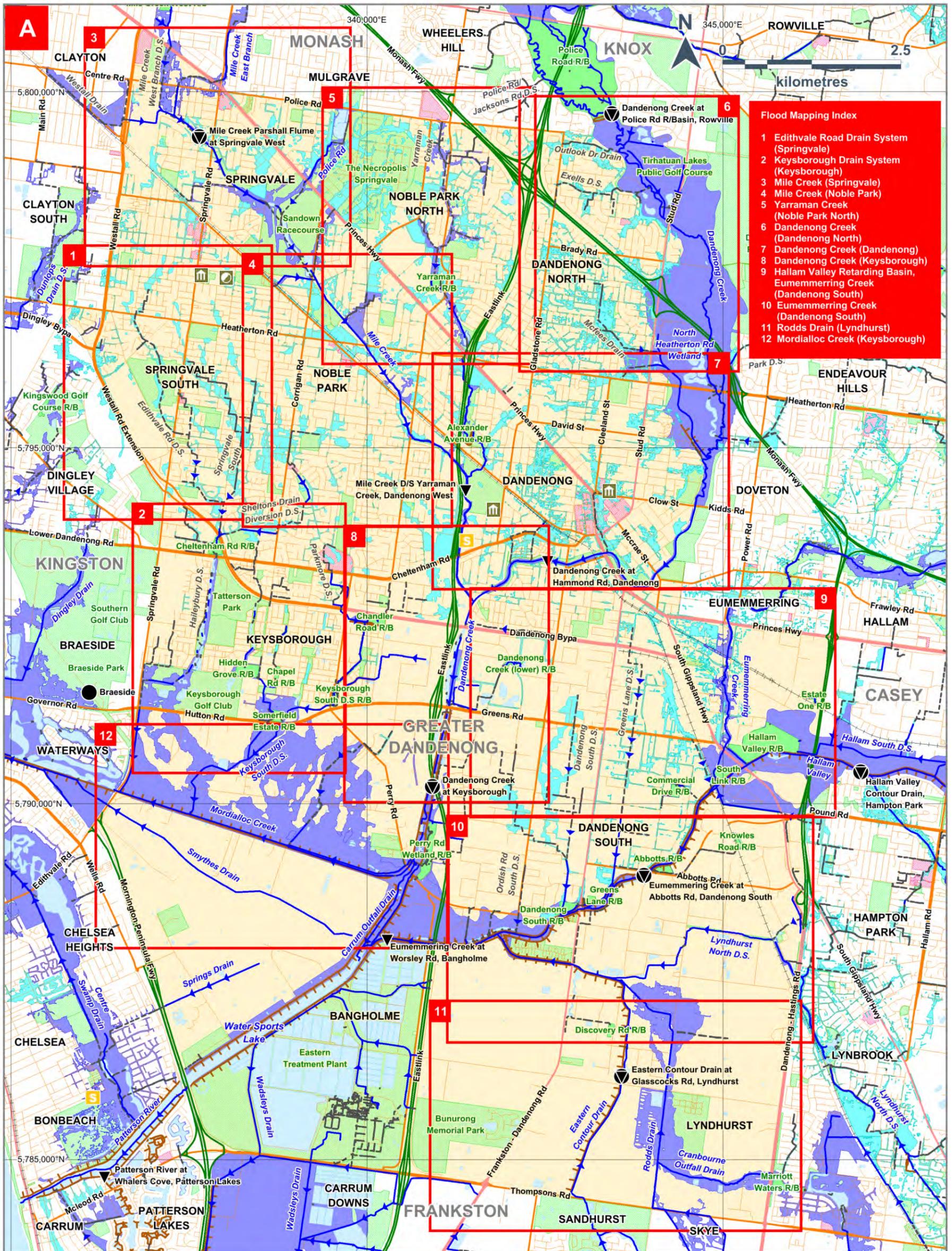
Overview

Maps considered useful to flood response are included in this Appendix. They include:

- A map outlining a series of flooding hot spot maps within the City of Greater Dandenong.
- A map showing the Municipal boundary together with the open waterways and underground stormwater drainage pipe network within the City of Greater Dandenong and the 1% AEP (100-year ARI) flood extents (sourced from Melbourne Water GIS).
- A set of 12 maps showing flooding hot spots within the City of Greater Dandenong together with the 1% AEP (100-year ARI) flood extents (sourced from the Melbourne Water GIS).

Note that:

- The mapping/data provided in this Appendix has been developed from Melbourne Water and other sources and taken from historical records and flood modelling. It may not include more recent data or local anecdotal information. It is planned that the mapping/data be updated as further studies or modelling is completed and other Information obtained.
- Maps showing the Special Building Overlay and Land Subject to Inundation Overlay are included in the Greater Dandenong Planning Scheme can be used as a guide to areas that may flood during an event. The maps can be found in hard copy form at the Council's main office or online at the Department of Planning and Community Development website <http://planningschemes.dpcd.vic.gov.au/>.
- Maps showing 1 in 100-year ARI (1% AEP) flood extents and floodways (together with volume, height and water quality data) are shown at DELWP's mapshare website <http://mapshare.maps.vic.gov.au/MapShareVic/index.html?viewer=MapShareVic.PublicSite&locale=en-AU>



- Flood Mapping Index**
- 1 Edithvale Road Drain System (Springvale)
 - 2 Keysborough Drain System (Keysborough)
 - 3 Mile Creek (Springvale)
 - 4 Mile Creek (Noble Park)
 - 5 Yarraman Creek (Noble Park North)
 - 6 Dandenong Creek (Dandenong North)
 - 7 Dandenong Creek (Dandenong)
 - 8 Dandenong Creek (Keysborough)
 - 9 Hallam Valley Retarding Basin, Eumemmerring Creek (Dandenong South)
 - 10 Eumemmerring Creek (Dandenong South)
 - 11 Rodds Drain (Lyndhurst)
 - 12 Mordialloc Creek (Keysborough)

CITY OF GREATER DANDENONG
Version 3: March 2019
A - Flood Mapping Index

- | | | | | | |
|--|---------------------------------|--|---------------------|--|----------------------------------|
| | 1% AEP Riverine Flood Extent | | Commercial Precinct | | River / Creek |
| | 1% AEP Flash Flood Extent | | River Level Gauge | | Melbourne Water Stormwater Drain |
| | Reserve / Area of Interest | | Rain Gauge | | Embankment |
| | Waterbody / Reservoir | | Municipal Building | | Levee |
| | Melbourne Water Retarding Basin | | Municipal Depot | | Flood Map Border |
| | | | SES LHQ | | |

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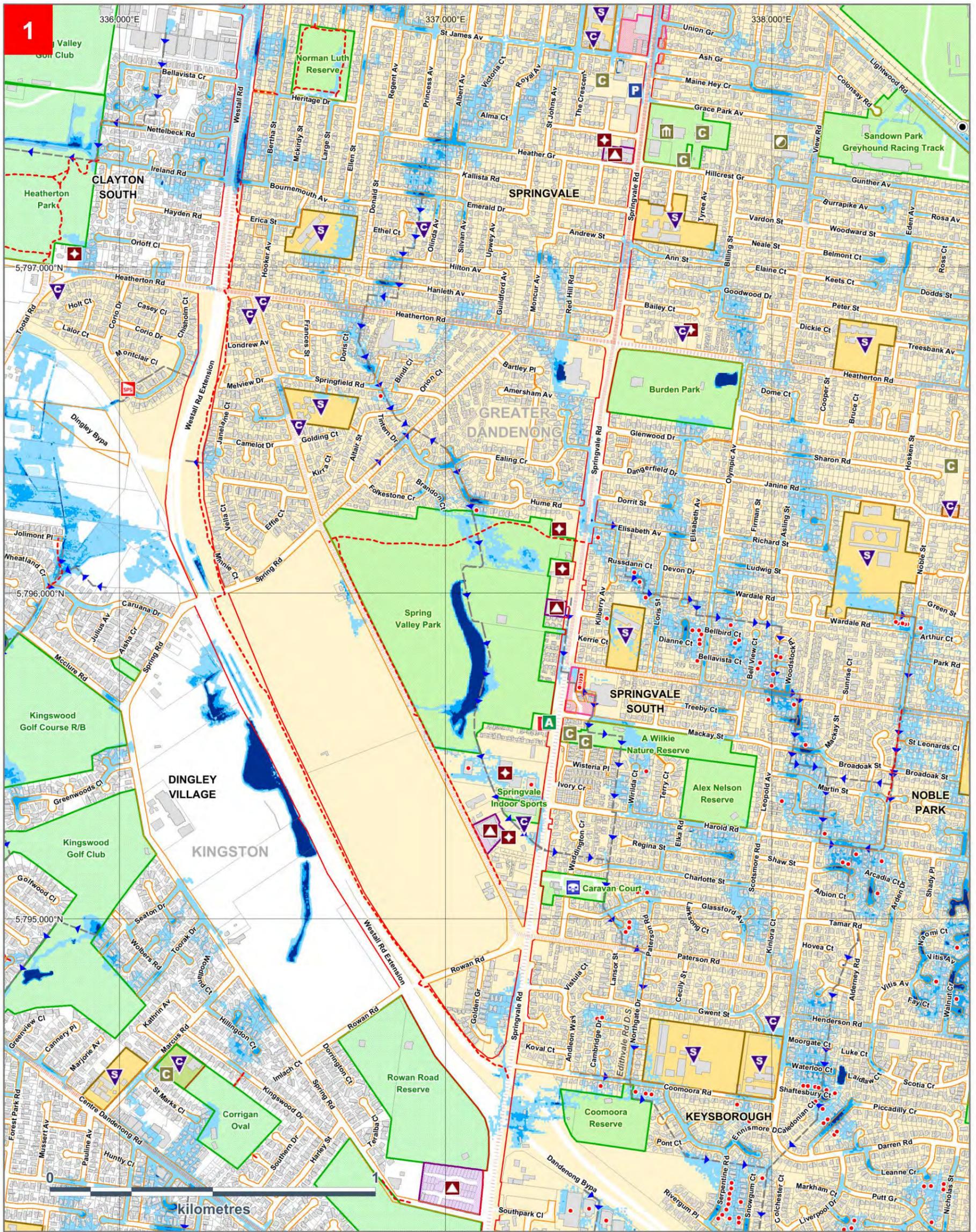
- Flood Study Details**
- (a.) Dandenong Creek (Melbourne Water, December 2001)
 - (b.) Dandenong North (Dandenong Catchment Area Flood Mapping, BMT WBM, March 2010)
 - (c.) Dandenong South Drain (CMPS&F, April 1998)
 - (d.) Eumemmerring Creek d/s Hallam Valley (Hallam Valley Catchment, Melbourne Water, March 2001)
 - (e.) Eumemmerring Creek u/s Hallam Valley (Eumemmerring Creek, Cardno, October 2017)
 - (f.) Greens Lane Drain (Greens Lane Catchments Flood Mapping, Cardno, June 2016)
 - (g.) Mile Creek (Mile Creek Flood Mapping, BMT WBM, March 2014)
 - (h.) Mordialloc Creek (Mordialloc Settlement Drain, Melbourne Water, January 2014)
 - (i.) Rodds Drain (Rodds Drain Catchment Urban Growth Area Flood Mapping, Water Technology, July 2013)
 - (j.) Springvale South (Edithvale, Noble Park and Parkmore Main Drain Flood Mapping, Cardno, June 2008)

CITY OF GREATER DANDENONG
 Version 3: March 2019
B - 1% AEP (100yr ARI) Flood Extent

- | | | | | | |
|--|---------------------------------|--|---------------------|--|----------------------------------|
| | 1% AEP Riverine Flood Extent | | Commercial Precinct | | River / Creek |
| | 1% AEP Flash Flood Extent | | River Level Gauge | | Melbourne Water Stormwater Drain |
| | Reserve / Area of Interest | | Rain Gauge | | Embankment |
| | Waterbody / Reservoir | | Municipal Building | | Levee |
| | Melbourne Water Retarding Basin | | Municipal Depot | | |
| | | | SES LHQ | | |

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Flood Extent Maps (sourced Melbourne Water GIS)



Flood modelling completed by Cardno, June 2008. Map Produced by VICSES March 2019.

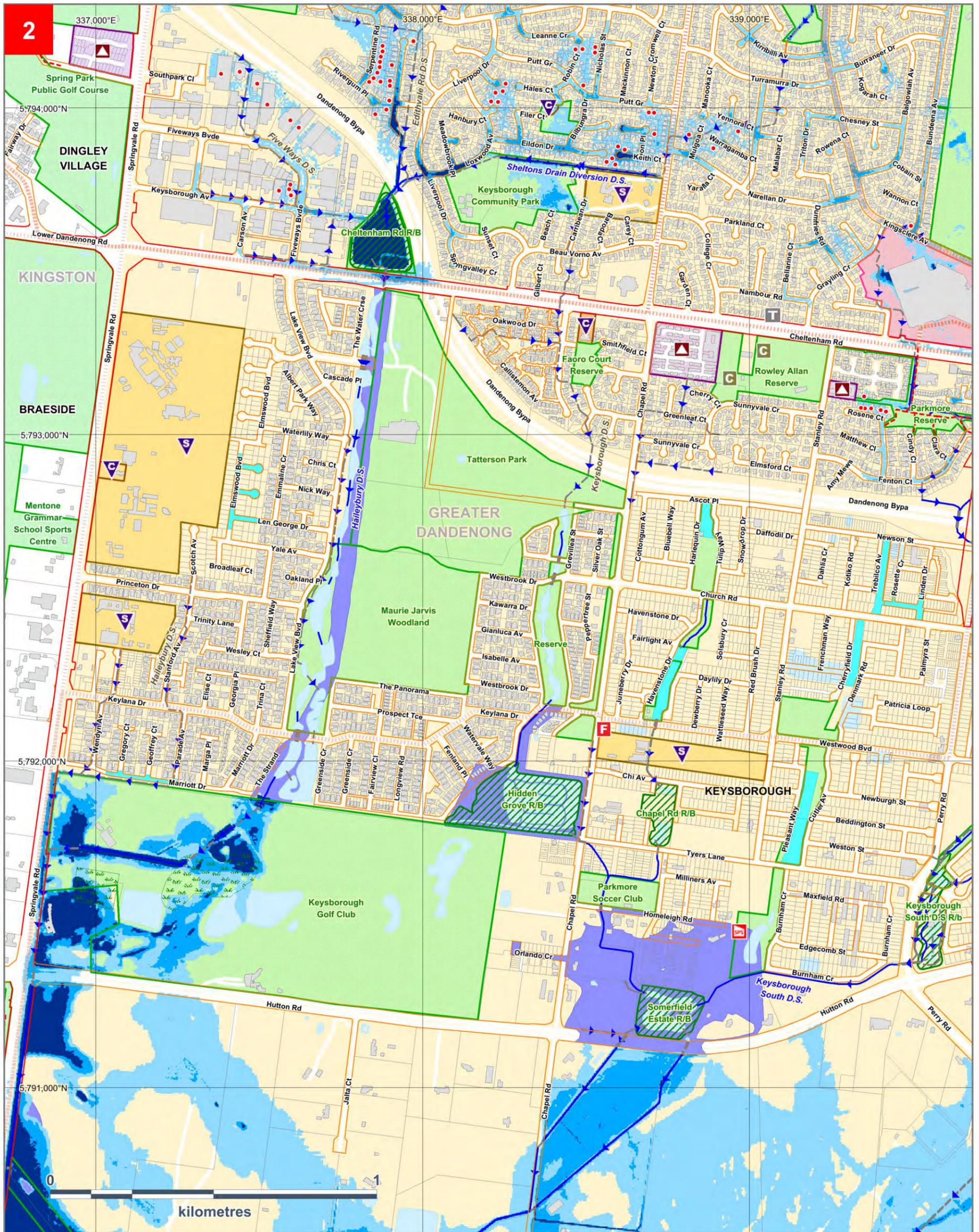
	Building		Melbourne Water Stormwater Drain		School / College		Police Station
	Waterbody		Bicycle / Walking Trail		Kindergarten / Child Care		1% AEP Over-Floor Flooding Risk
	Greater than 60cm		Bus Route (PTV)		Fire Station		
	Between 30cm and 60cm		Ambulance Station		Aged Care Facility		
	Up to 30cm		Caravan Park		Municipal Offices		
	Shopping Precinct		Community Centre		Municipal Depot		
	Reserve / Park		Place Of Worship				

CITY OF GREATER DANDENONG
 1% AEP (100yr ARI) Flooding
 1. Edithvale Road Drain System (Springvale)



Melbourne Water

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Flood modelling completed by Cardno, June 2008. Map Produced by VICSES March 2019.

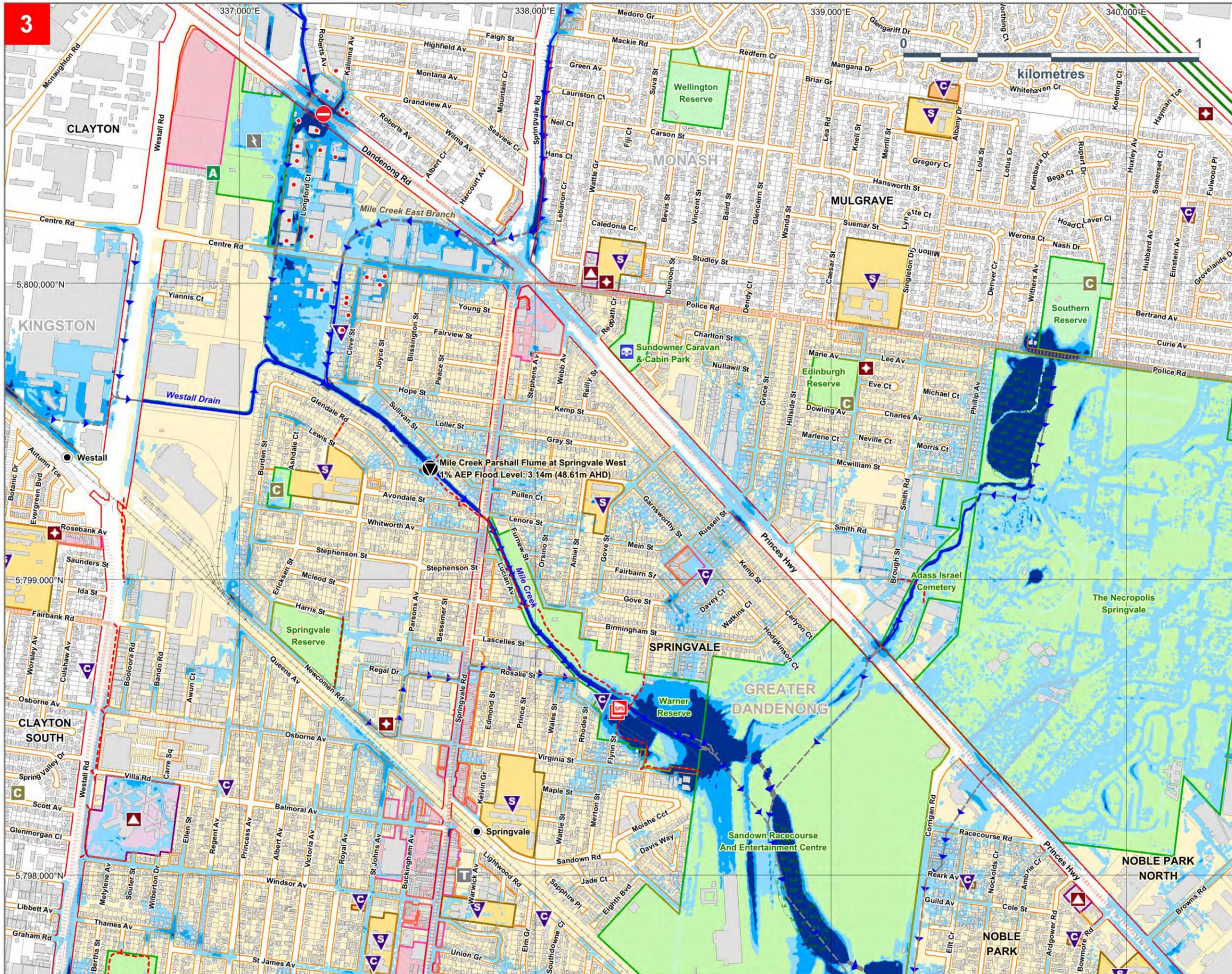
CITY OF GREATER DANDENONG
 1% AEP (100yr ARI) Flooding
 2. Keysborough Drain System (Keysborough)

- | | | |
|-----------------------|--|---------------------------------|
| Building | 1% AEP Riverine Flood Extent (Depth Unavailable) | School / College |
| Waterbody | Melbourne Water Retarding Basin | Kindergarten / Child Care |
| Greater than 60cm | Melbourne Water Stormwater Drain | Sewer Pumping Station |
| Between 30cm and 60cm | Bicycle / Walking Trail | Fire Station |
| Up to 30cm | Bus Route (PTV) | Aged Care Facility |
| Shopping Precinct | Waterway | Telephone Exchange |
| Reserve / Park | Community Centre | 1% AEP Over-Floor Flooding Risk |
| | Place Of Worship | |



SES VICTORIA **Melbourne Water**

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- Building
- Area of Interest
- Waterbody
- Natural Wetland
- Shopping Precinct
- 1% AEP Flash Flood Depth**
- Greater than 60cm
- Between 30cm and 60cm
- Up to 30cm
- Creek / Waterway
- Bicycle / Walking Trail
- Bus Routes (PTV)
- Melbourne Water Stormwater Drain
- Aged Care Facility
- Community Centre
- Place Of Worship
- School / College
- Telephone Exchange
- Kindergarten / Child Care
- Sewer Pumping Station
- Point
- Ambulance Station
- Power Terminal Station
- 1% AEP Over-Floor Flooding Risk
- Rain Gauge
- Road Closure Likely
- Caravan Park

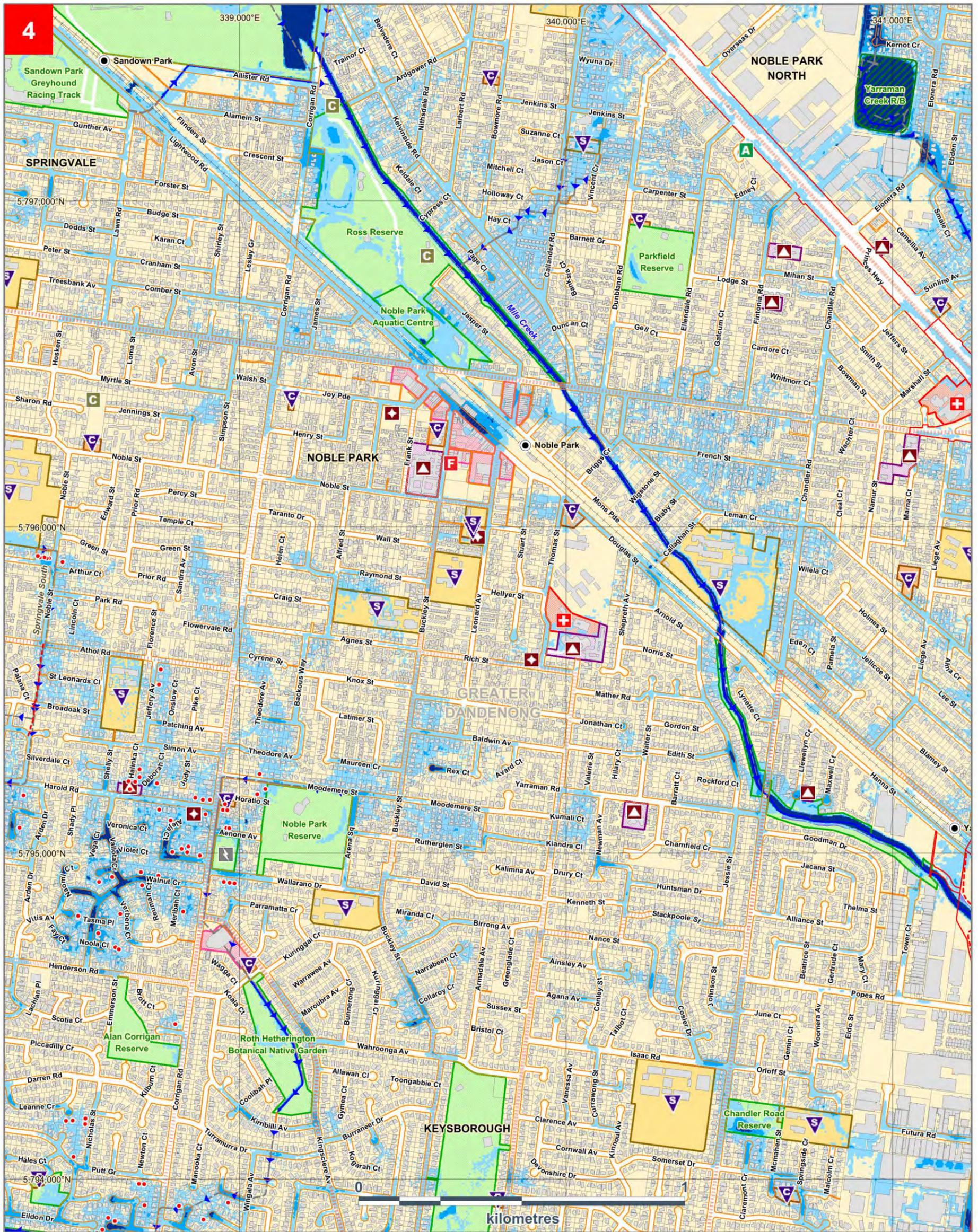


N

CITY OF GREATER DANDENONG
1% AEP (100yr ARI) Flooding
3. Mile Creek (Springvale)

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Mile Creek flood modelling completed by BMT WBM, March 2014. Map Produced by VicSES March 2019.



Flood modelling completed by Cardno, June 2008. Map Produced by VICSES March 2019.

CITY OF GREATER DANDENONG

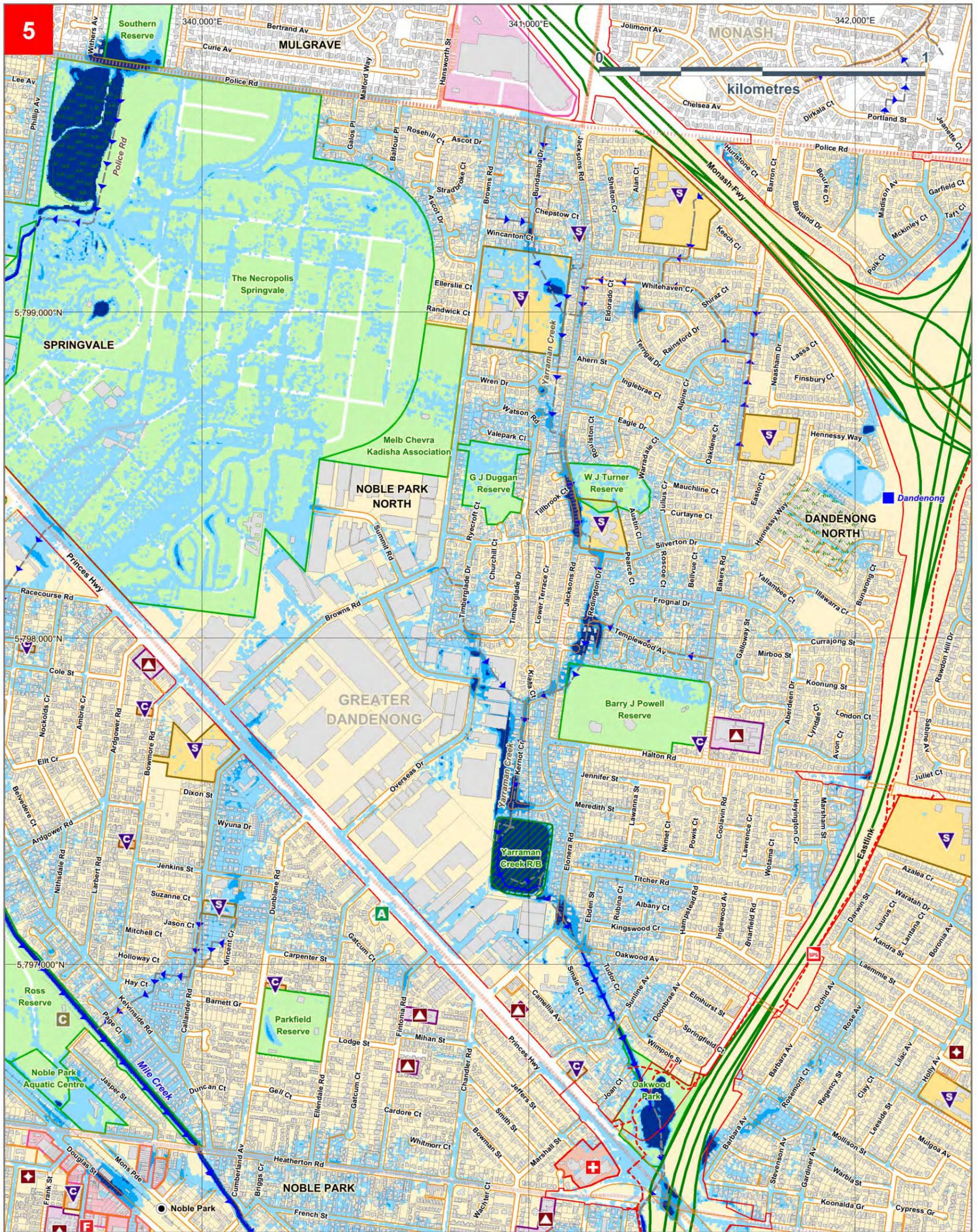
1% AEP (100yr ARI) Flooding
4. Mile Creek (Noble Park)

- | | | | | | |
|--|---|--|----------------------------------|--|---------------------------------|
| | Building | | Creek / Waterway | | School / College |
| | Waterbody | | Melbourne Water Stormwater Drain | | Kindergarten / Child Care |
| | 1% AEP Flash Flood Depth
Greater than 60cm | | Bicycle / Walking Trail | | Hospital |
| | Between 30cm and 60cm | | Bus Route (PTV) | | Fire Station |
| | Up to 30cm | | Ambulance Station | | Aged Care Facility |
| | Shopping Precinct | | Community Centre | | 1% AEP Over-Floor Flooding Risk |
| | Reserve / Park | | Place Of Worship | | |
| | Melbourne Water Retarding Basin | | Power Terminal Station | | |



VICTORIA
Melbourne Water

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Flood modelling completed by BMT WBM, March 2014. Map Produced by VICSES March 2019.

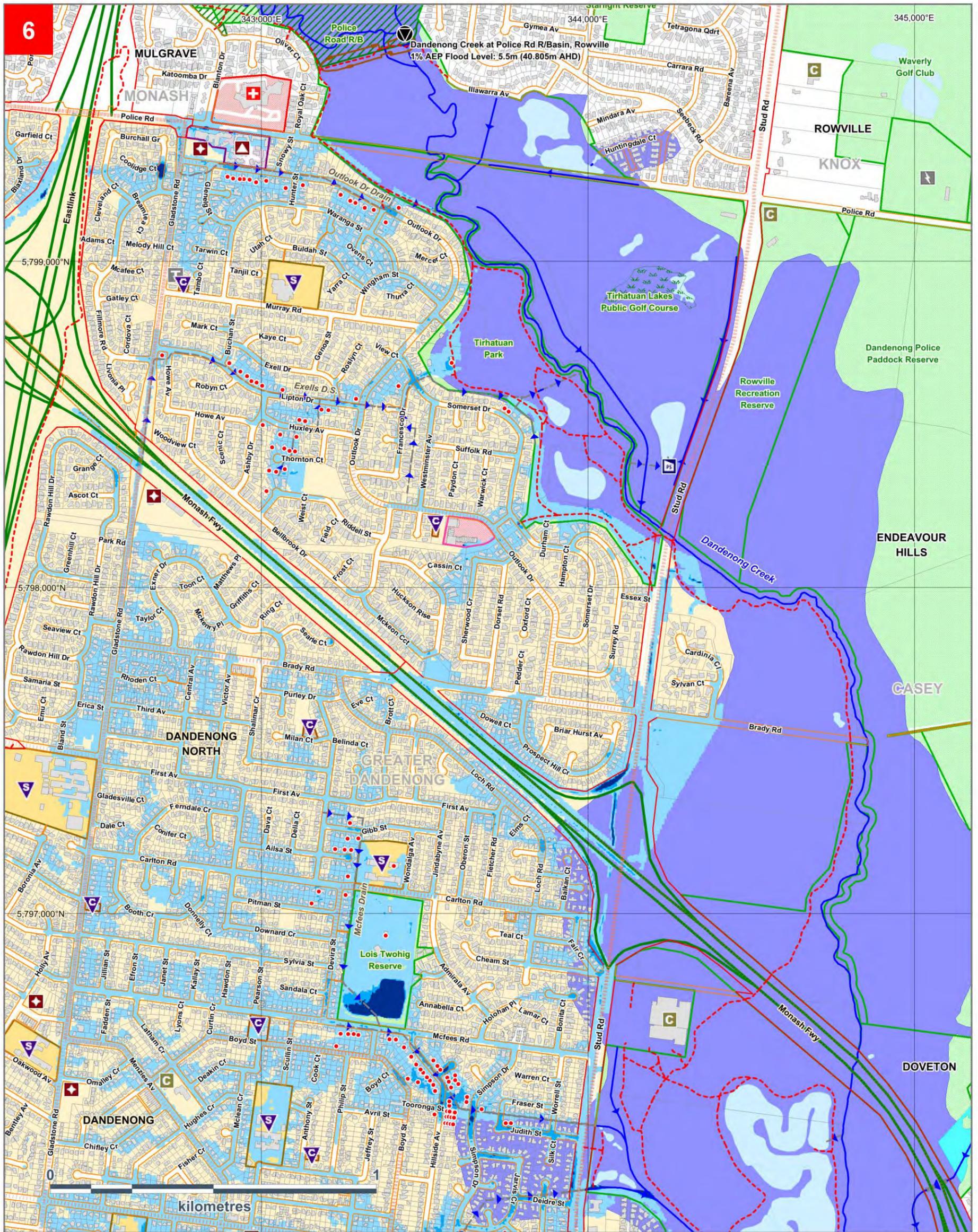
CITY OF GREATER DANDENONG
 1% AEP (100yr ARI) Flooding
 5. Yarraman Creek (Noble Park North)

- | | | |
|---------------------------------|----------------------------------|---------------------------|
| Building | Natural Wetland | School / College |
| Waterbody | Creek / Waterway | Kindergarten / Child Care |
| Reserve / Park | Melbourne Water Stormwater Drain | Hospital |
| Greater than 60cm | Bicycle / Walking Trail | Sewer Pumping Station |
| Between 30cm and 60cm | Bus Route (PTV) | Ambulance Station |
| Up to 30cm | Aged Care Facility | Community Centre |
| Melbourne Water Retarding Basin | Place Of Worship | |
| Shopping Precinct | | |



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Dandenong Creek flood modelling completed by Melbourne Water, December 2001. Stormwater Drainage flood modelling completed by BMT WBM, March 2010. Map Produced by VICSES March 2019.

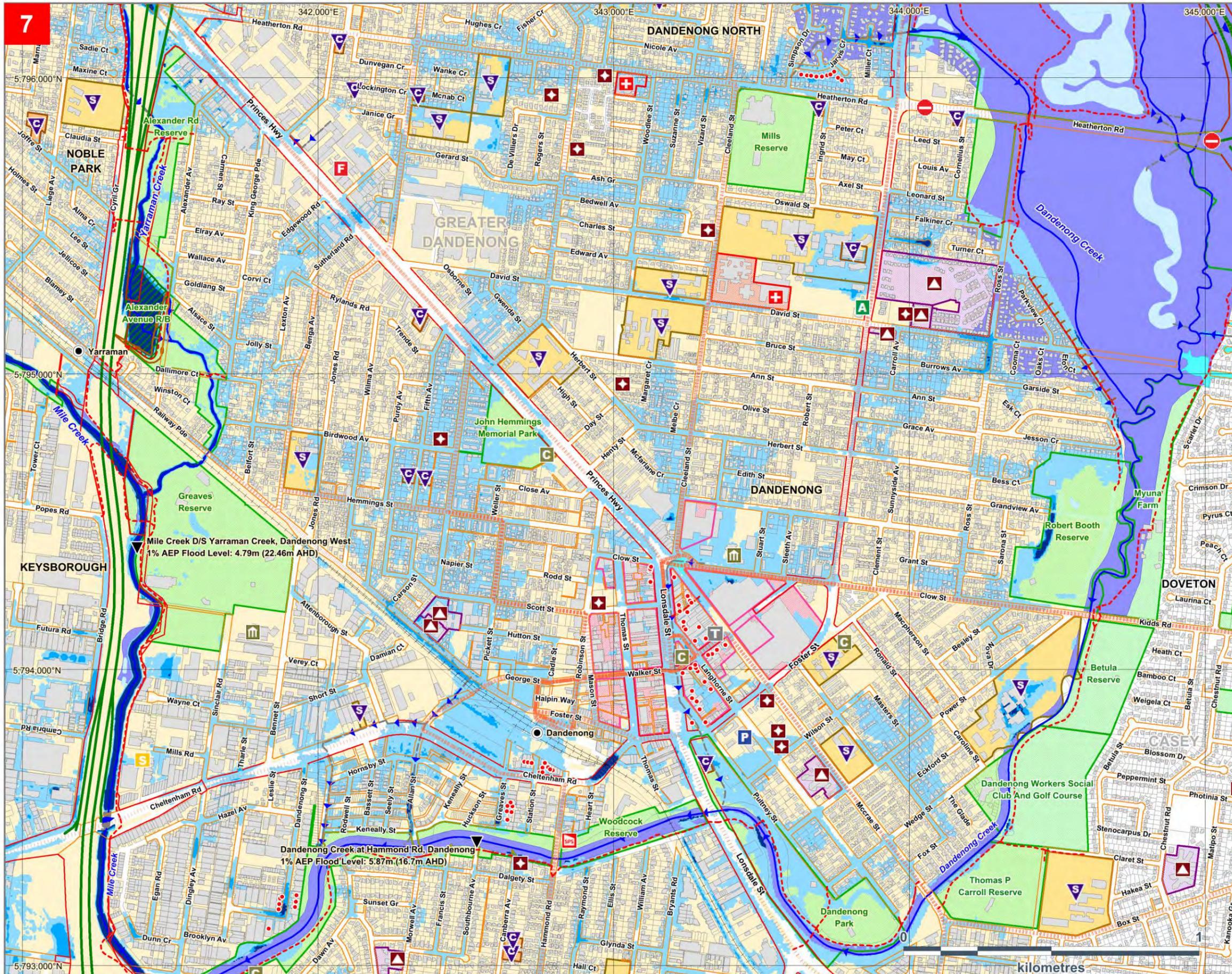
CITY OF GREATER DANDENONG
 1% AEP (100yr ARI) Flooding
6. Dandenong Creek (Dandenong North)

- | | | | |
|--|----------------------------------|---|----------------|
| Building | Natural Wetland | School / College | Reserve / Park |
| Waterbody | Creek / Waterway | Kindergarten / Child Care | Hospital |
| 1% AEP Riverine Flood Extent (Depth Unavailable) | Melbourne Water Stormwater Drain | 1% AEP Over-Floor Flooding Risk | |
| 1% AEP Flash Flood Depth Greater than 60cm | Bicycle / Walking Trail | Telephone Exchange | |
| 1% AEP Flash Flood Depth Between 30cm and 60cm | Bus Route (PTV) | Drainage Pumping Station | |
| 1% AEP Flash Flood Depth Up to 30cm | Embankment | Power Terminal Station | |
| Melbourne Water Retarding Basin | Aged Care Facility | Stream Level Gauge & 1% AEP Flood Level | |
| Shopping Precinct | Community Centre | Rain Gauge | |
| | Place Of Worship | | |



VICTORIA State Government
Melbourne Water

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- Building
 - Area of Interest
 - Waterbody
 - Melbourne Water Retarding Basin
 - Shopping Precinct
- 1% AEP Flash Flood Depth**
- Greater than 60cm
 - Between 30cm and 60cm
 - Up to 30cm
- Creek / Waterway
 - Bicycle / Walking Trail
 - Bus Routes (PTV)
 - Melbourne Water Stormwater Drain
 - Embankment
 - Levee
 - Aged Care Facility
 - Community Centre
 - Place Of Worship
 - School / College
 - Telephone Exchange
 - Kindergarten / Child Care
 - Sewer Pumping Station
 - Point
 - Ambulance Station
 - 1% AEP Over-Floor Flooding Risk
 - Road Closure Likely
 - Hospital
 - Fire Station
 - State Emergency Service
 - Municipal Offices
 - Police Station



CITY OF GREATER DANDENONG
 1% AEP (100yr ARI) Flooding
 7. Dandenong Creek (Dandenong)



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Mile Creek flood modelling completed by BMT WBM, March 2014. Dandenong Flash flood modelling completed by BMT WBM, March 2010. Dandenong Creek flood modelling completed by Melbourne Water, 2001. Map Produced by VicSES March 2019.



Flood modelling completed by Melbourne Water, December 2001. Map Produced by VICSES March 2019.

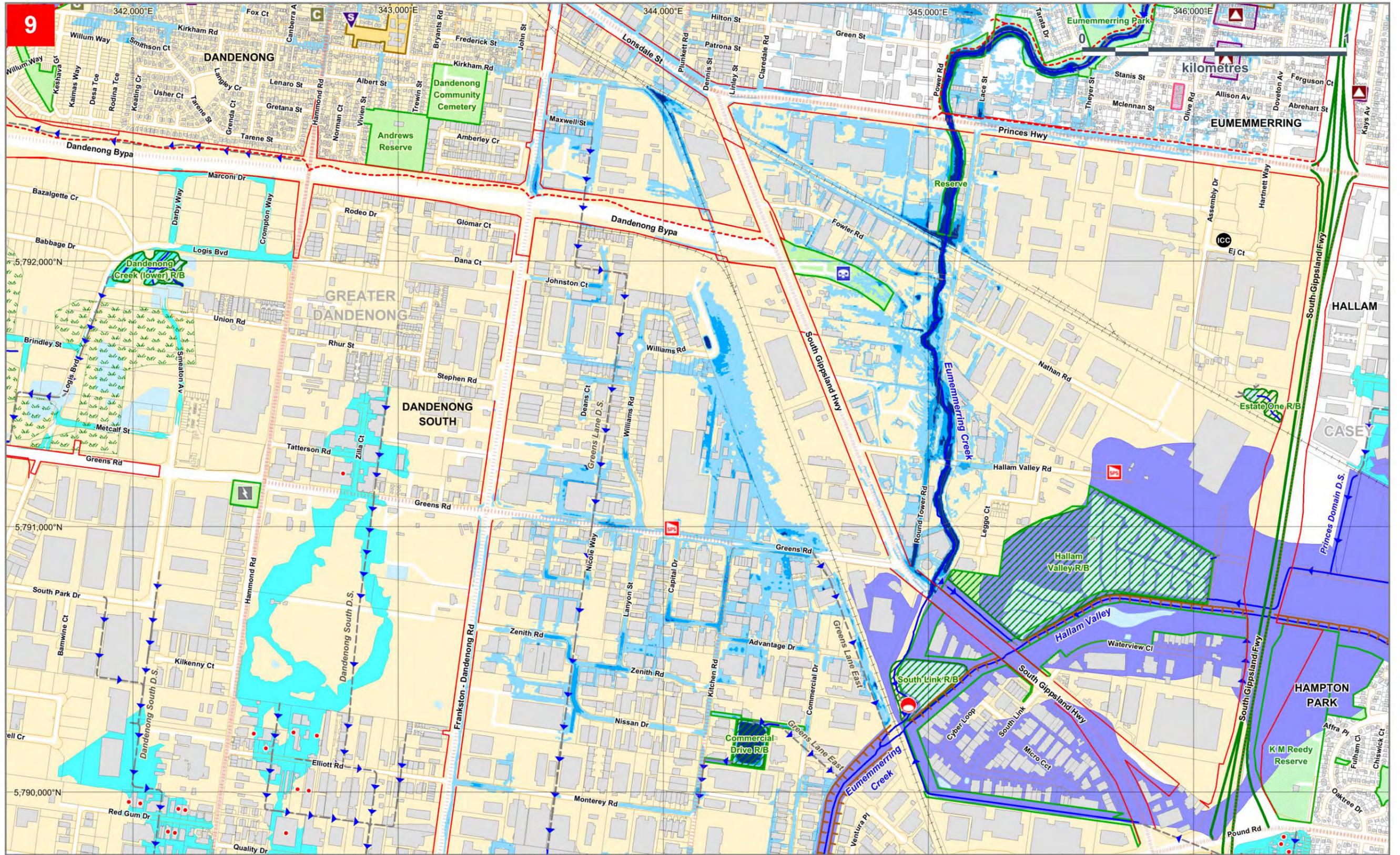
CITY OF GREATER DANDENONG
 1% AEP (100yr ARI) Flooding
8. Dandenong Creek (Keysborough)

- | | | |
|-----------------------|--|---|
| Building | 1% AEP Riverine Flood Extent (Depth Unavailable) | School / College |
| Waterbody | Melbourne Water Retarding Basin | Sewer Pumping Station |
| Greater than 60cm | Melbourne Water Stormwater Drain | Power Terminal Station |
| Between 30cm and 60cm | Bicycle / Walking Trail | State Emergency Service |
| Up to 30cm | Bus Route (PTV) | 1% AEP Over-Floor Flooding Risk |
| Shopping Precinct | Waterway | Stream Level Gauge & 1% AEP Flood Level |
| Reserve / Park | Levee | Rain Gauge |
| Natural Wetland | Place Of Worship | |
| | Aged Care Facility | |



VICTORIA State Government
Melbourne Water

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Greens Lane flood modelling completed by Cardno, June 2016. Eumemmerring Creek flood modelling completed by Cardno, October 2017. Dandenong South Drain flood modelling completed by CMPS&F, April 1998. Map Produced by VicSES March 2019.

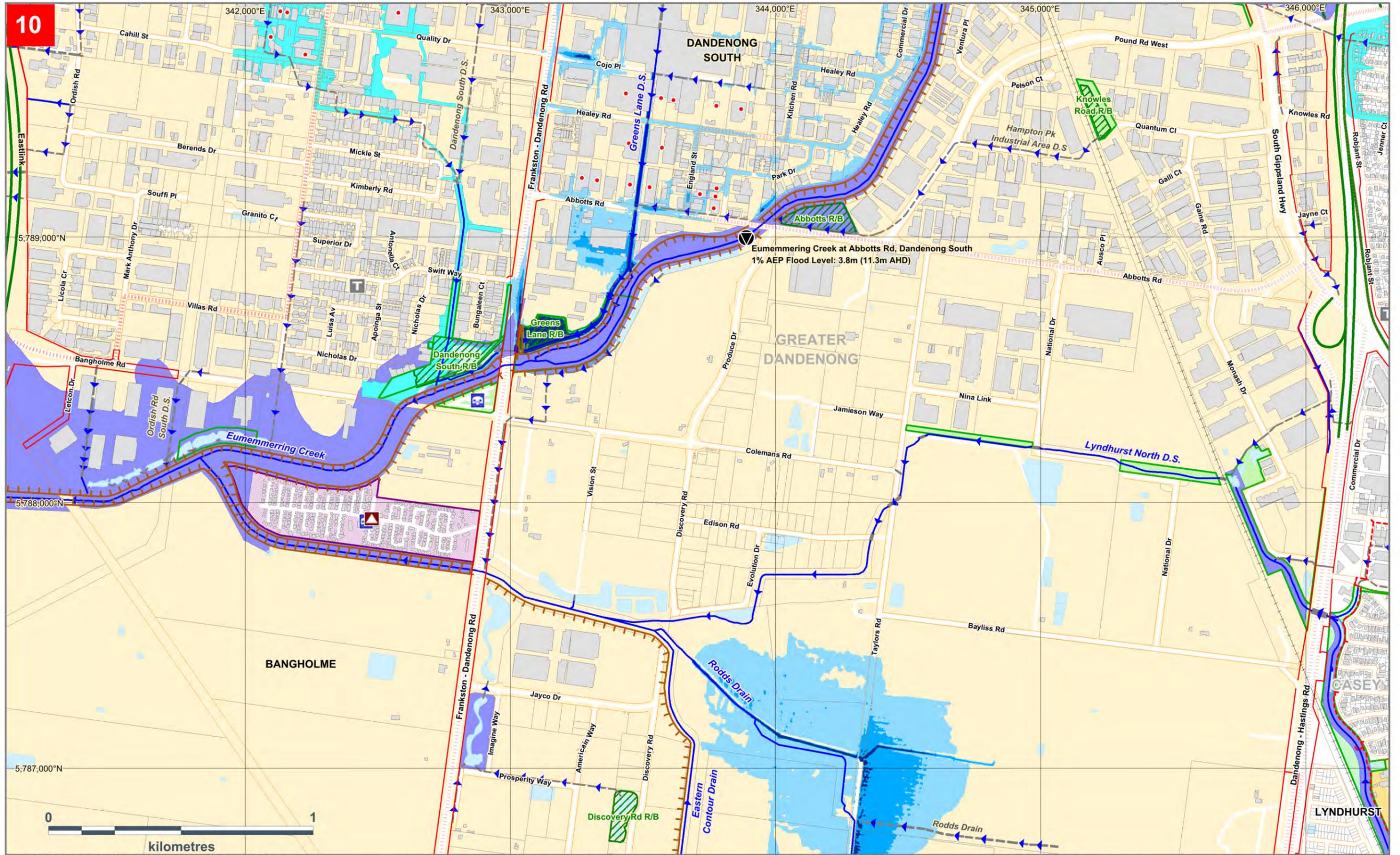
CITY OF GREATER DANDENONG
 1% AEP (100yr ARI) Flooding
9. Hallam Valley Retarding Basin
Eumemmerring Creek (Dandenong South)

- | | | | |
|--|---------------------------------|----------------------------------|---------------------------------|
| Building | Melbourne Water Retarding Basin | Bicycle / Walking Trail | Power Terminal Station |
| Area of Interest | Natural Wetland | Bus Route (PTV) | 1% AEP Over-Floor Flooding Risk |
| Waterbody | 1% AEP Flash Flood Depth | Melbourne Water Stormwater Drain | Sewer Emergency Relief Point |
| Shopping Precinct | Greater than 60cm | Creek / Channel | Sewer Pumping Station |
| 1% AEP Flash Flood Extent (Depth Unavailable) | Between 30cm and 60cm | Aged Care Facility | School / College |
| 1% AEP Riverine Flood Extent (Depth Unavailable) | Up to 30cm | Caravan Park | Emergency Control Centre |
| | Levee | Community Centre | |



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Flood modelling completed by Melbourne Water, March 2001. Map Produced by VicSES March 2019.

CITY OF GREATER DANDENONG

1% AEP (100yr ARI) Flooding

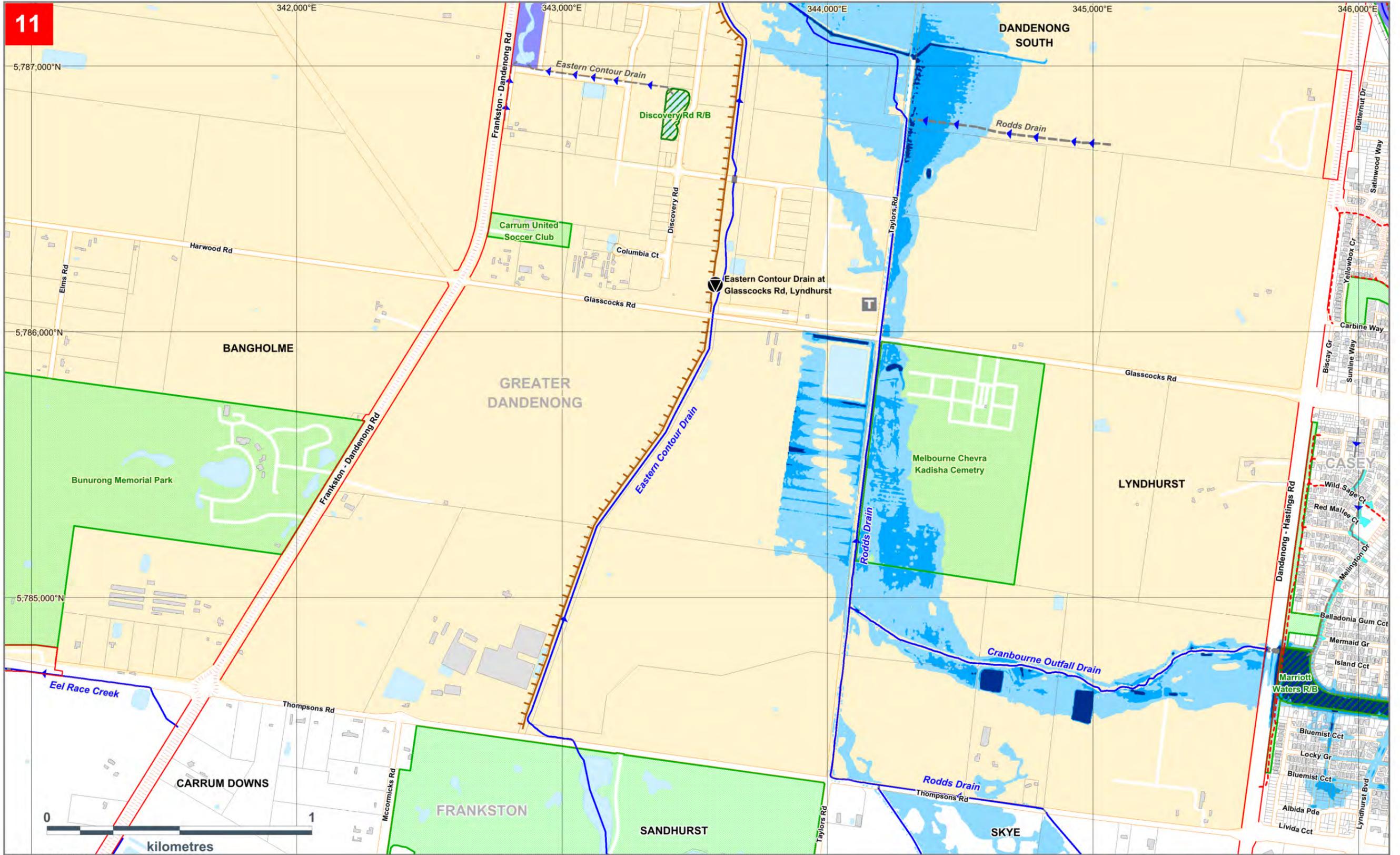
10. Eumemmerring Creek (Dandenong South)

- | | | | |
|--|---------------------------------|----------------------------------|---------------------------------|
| Building | Melbourne Water Retarding Basin | Bicycle / Walking Trail | Stream Level Gauge |
| Area of Interest | Natural Wetland | Bus Route (PTV) | Rain Gauge |
| Waterbody | 1% AEP Flash Flood Depth | Melbourne Water Stormwater Drain | 1% AEP Over-Floor Flooding Risk |
| Shopping Precinct | Greater than 60cm | Creek / Channel | |
| 1% AEP Flash Flood Extent (Depth Unavailable) | Between 30cm and 60cm | Aged Care Facility | |
| 1% AEP Riverine Flood Extent (Depth Unavailable) | Up to 30cm | Caravan Park | |
| | Levee | Telephone Exchange | |



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Map Produced by VicSES March 2019.

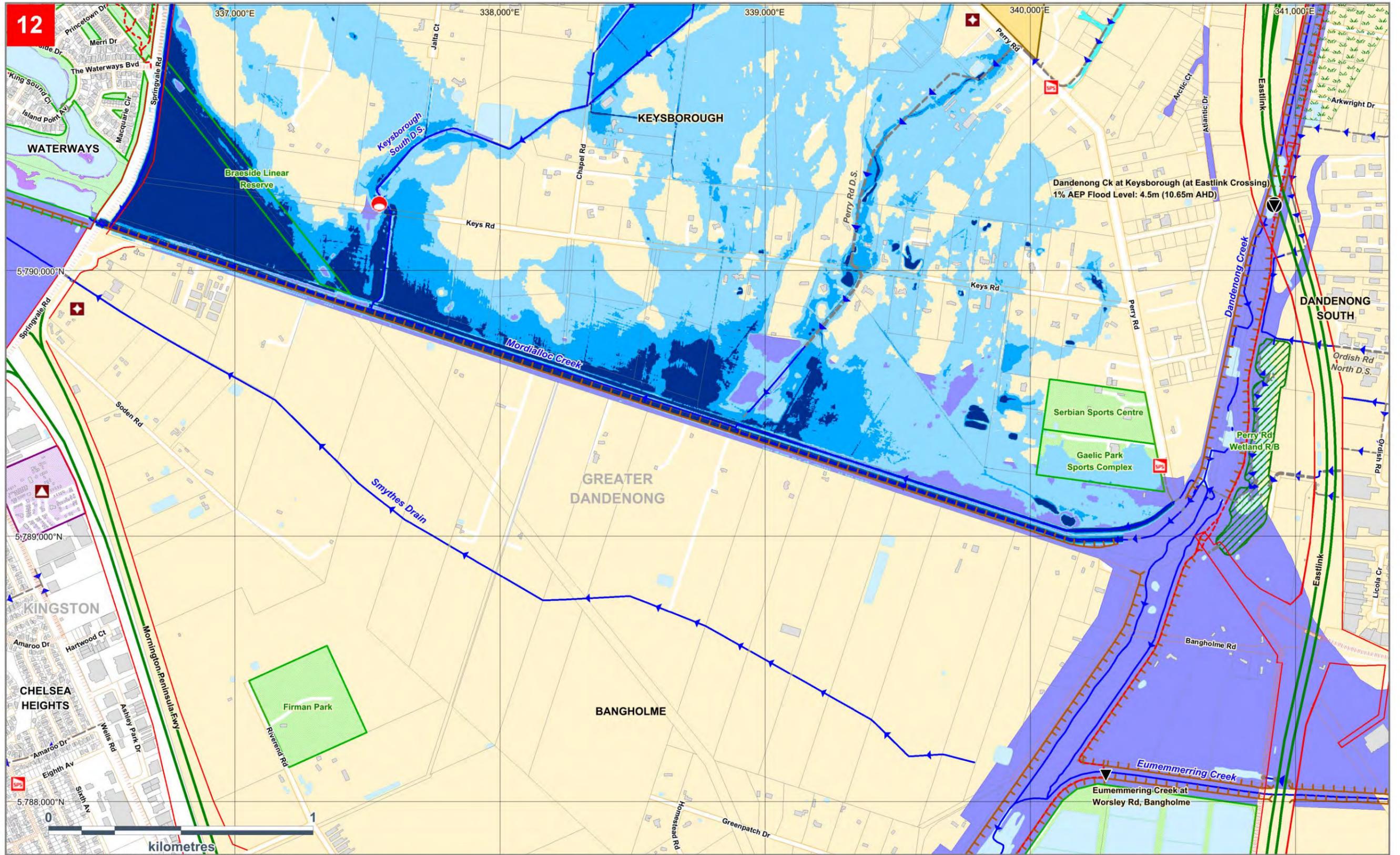
CITY OF GREATER DANDENONG
 1% AEP (100yr ARI) Flooding
11. Rodds Drain (Lyndhurst)

- | | | | |
|--|---|----------------------------------|--------------------|
| Building | 1% AEP Flash Flood Depth
Greater than 60cm | Bicycle / Walking Trail | Stream Level Gauge |
| Area of Interest | Between 30cm and 60cm | Bus Route (PTV) | Rain Gauge |
| Waterbody | Up to 30cm | Melbourne Water Stormwater Drain | |
| 1% AEP Riverine Flood Extent (Depth Unavailable) | Levee | Creek / Channel | |
| Melbourne Water Retarding Basin | | Telephone Exchange | |



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Flood modelling completed by Melbourne Water, January 2014. Map Produced by VicSES March 2019.

CITY OF GREATER DANDENONG
 1% AEP (100yr ARI) Flooding
12. Mordialloc Creek
(Keysborough)

- | | | | |
|--|---------------------------------|----------------------------------|------------------------------|
| Building | Melbourne Water Retarding Basin | Bicycle / Walking Trail | Stream Level Gauge |
| Area of Interest | Natural Wetland | Bus Route (PTV) | Rain Gauge |
| Waterbody | 1% AEP Flood Depth | Melbourne Water Stormwater Drain | Sewer Emergency Relief Point |
| Shopping Precinct | Greater than 60cm | Creek / Channel | Sewer Pumping Station |
| 1% AEP Flash Flood Extent (Depth Unavailable) | Between 30cm and 60cm | Aged Care Facility | |
| 1% AEP Riverine Flood Extent (Depth Unavailable) | Up to 30cm | Place Of Worship | |
| | Levee | | |



SES VICTORIA State Government **Melbourne Water**

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APPENDIX G – CATCHMENT SCHEMATICS

Schematics detailing the drainage catchments relevant for this municipality have been included in this Appendix. Each Schematic outlines the drainage system comprising of rivers, creeks or storm-water drains contained within one of the major catchments in the Port Phillip & Westernport Region.

Within each Schematic, there are details useful to flood response such as those relating to gauges, towns, rivers, creeks, drains and reservoirs. Historical facts and figures may also be shown.

The schematics also detail the response boundaries for SES Units and local government, and provide a reference link to the corresponding Municipal Flood Emergency Plan.

Details within these Catchment Schematics reflect those contained within either other sections of this Municipal Flood Emergency Plan or refer to other Municipal Flood Emergency Plans. These details have been filtered to contain only key facts. For more information on a gauge, drainage system or town consult the corresponding Flood Emergency Plan

Note that not all waterways or drains are included in the schematics, only those that are likely to contribute to flooding further on along the drainage system. Note also the flow direction; the schematics either flow from the top of the page to the bottom, or vice versa.



Dandenong Creek Catchment Schematic

Version 5 - April 2019

YARRA RANGES MFEP

Emerald, Lilydale, Healesville & Upper Yarra Units

Mount Dandenong
- Station No. 586090
- Location: GTV9 Tower, Mount Dandenong

Bungalook Creek at Fussell Rd Retarding Basin
- Station No. 228369A
- Location: Fussell Road, Montrose (Melway 51K11)
- Historical Flood Level: 7.23m (18th September 1984)
- Historical Flood Level: 6.19m (30th July 1996)
- Spillway Level: 8.15m
- Embankment Level: 8.4m
- 1% AEP Flood Level: 8.39m

13 properties at risk of flooding over-floor in a 1% AEP event
The Croydon Civic Centre at risk of isolation in a 1% AEP event

CROYDON

Croydon Drain
5 km

MONTROSE

4 km

Bungalook Creek

7 km

Dandenong Creek

4 km

Dobsons Creek

4 km

YARRA RANGES MFEP

Emerald, Lilydale, Healesville & Upper Yarra Units

Dandenong Creek at Liverpool Rd Retarding Basin
- Station No. 228373A
- Location: Liverpool Road, The Basin (Melway 65F4)
- Historical Flood Level: 6.43m (22nd January 1994)
- Spillway Level: 5.4m
- Full Supply Level: 6.0m
- Embankment Level: 6.6m

BAYSWATER

- 244 properties at risk of flooding over-floor in a 1% AEP event

FERNTREE GULLY

- 68 properties at risk of flooding over-floor in a 1% AEP event

Flow Direction ↓

MAROONDAH MFEP

Maroondah Unit

KNOX MFEP

Knox Unit

Dandenong Creek at Wantirna

- Station No. 228357A
- Location: Wantirna Road, Wantirna
- Travel Time to Rowville: Between 1-14 hours
- Historical Flood Level: 2.78m (5th February 2011)
- Historical Flood Level: 2.73m (3rd February 2005)
- Significant Level: 2.5m (Spillway at Police Rd Retarding Basin will start operating)
- 1% AEP Flood Level: 4.9m

WHITEHORSE MFEP

Whitehorse Unit

KNOXFIELD

Knox City S.C. Carpark flooding at 4.7m on the Blind Creek RB Gauge - Residential properties and Knox City Shopping Centre at risk of flooding at 6.3m on the Blind Creek RB Gauge

WANTIRNA

- Boronia Rd & Burwood Hwy flooded at 3.5m on the Wantirna Gauge

Blind Creek

7 km

Blind Creek at Blind Creek Retarding Basin

- Station No. 228366A
- Location: Rear of Knox City Shopping Centre
- Travel Time to Wantirna South: Between 0-3 hours
- Historical Flood Level: 5.14m (3rd February 2005)
- Spillway Level: 5.59m
- Embankment Level: 6.39m
- 1% AEP Flood Level: 6.4m

MONASH MFEP

Monash Unit

Blind Creek at Wantirna South

- Station No. 228351B
- Location: High Street Rd, Wantirna South (Melway 72E1)
- Travel Time to Rowville: Between 1-13 hours
- Historical Flood Level: 3.65m (13th December 1993)
- Historical Flood Level: 2.8m (3rd December 2003)

Glen Waverley

Station No. 586197 - Location: Mt View Reservoir, Waverley Rd, Glen Waverley

WHEELERS HILL
- 20 properties at risk of flooding in a 1% AEP event
- Ferntree Gully Rd flooded at 5.0m on the Police Rd Gauge
- Wellington Rd flooded at 5.5m on the Police Rd Gauge

Ferny Creek

16 km

UPPER FERNTREE GULLY

- Burwood Hwy near Mount Dandenong Tourist Rd at risk of flooding a 5% AEP event

GREATER DANDENONG MFEP

Greater Dandenong Unit

Blind Creek at Wantirna South

- Station No. 228351B
- Location: High Street Rd, Wantirna South (Melway 72E1)
- Travel Time to Rowville: Between 1-13 hours
- Historical Flood Level: 3.65m (13th December 1993)
- Historical Flood Level: 2.8m (3rd December 2003)

Glen Waverley

Station No. 586197 - Location: Mt View Reservoir, Waverley Rd, Glen Waverley

WHEELERS HILL
- 20 properties at risk of flooding in a 1% AEP event
- Ferntree Gully Rd flooded at 5.0m on the Police Rd Gauge
- Wellington Rd flooded at 5.5m on the Police Rd Gauge

Dandenong Creek

24 km

Corhanwarrabul Creek

5 km

Police Road Retarding Basin

10 km

Dandenong Creek

4 km

Dandenong

4 km

Dandenong Creek at Keysborough

7 km

Patterson River

7 km

Patterson River at Patterson Lakes

7 km

Patterson Lakes

7 km

Port Phillip Bay

Dandenong Creek at Police Rd Retarding Basin

- Station No. 228368A
- Location: Police Road, Rowville (Melway 81E6)
- Minor: 4.6m; Moderate: 5.0m; Major: 5.5m
- Travel Time to Dandenong: Between 2-9 hours
- Travel Time to Patterson Lakes: Between 2-17 hours
- Historical Flood Level: 5.69m (18th September 1984)
- Historical Flood Level: 5.56m (3rd February 2005)
- Historical Flood Level: 5.45m (5th February 2011)
- Spillway Level: 4.28m
- Levee Height (Crest) at Heatherton Rd: 5.25m
- 1% AEP Flood Level: 5.5m

DANDENONG

- 1 property at risk of flooding a 1% AEP event
- Heatherton Rd at risk of flooding at 5.4m on the Police Rd RB Gauge

Dandenong Creek at Keysborough

- Station No. 228356B
- Location: Eastlink Crossing, Keysborough (Melway 94H5)
- Historical Flood Level: 3.50m (5th February 2011)
- Levee Height: 5.2m
- 1% AEP Flood Level: 4.5m

Dandenong Creek at Dandenong

- Station No. 228204C
- Location: Hammond Road, Dandenong (Melway 90C9)
- Travel Time to Keysborough: Between 0-2 hours
- Historical Flood Level: 4.84m (3rd February 2005)
- Historical Flood Level: 4.76m (19th September 1984)
- Bank Level: 6.6m (Channel Capacity at Dandenong)
- 1% AEP Flood Level: 5.87m

GREATER DANDENONG MFEP

Greater Dandenong Unit

BANGHOLME

- 6 properties at risk of flooding a 1% AEP event
- Pillers, Perry & Bangholme Rds flooded in a 1% AEP event

Patterson River at Patterson Lakes

- Station No. 228383A
- Location: Outside Tidal Gates, Patterson Lakes (Melway 97F6)
- Minor: 0.75m
- Historical Flood Level: 1.26m (3rd February 2005)
- Historical Flood Level: 1.26m (5th February 2011)
- Tidal Gate Closure Level: 0.73m
- 1% AEP Flood Level: 1.60m

LEGEND

- Stream & Rain Gauge
- Rain Gauge
- Stream Gauge
- TOWN / SUBURB
- URBAN AREA
- Creek / River
- Stormwater Drain
- 20km Distance between Gauges or to River / Creek End

Schematic Not To Scale

KINGSTON MFEP

Chelsea & Moorabbin Units



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Information Sources: Melbourne Water Flood Warning Manual; Municipal Flood Emergency Plans; Melbourne Water GIS; Melbourne Water HYDSTRA Database; ABS Census 2016



Eumemmerring Creek Catchment Schematic

Version 5 - April 2019

YARRA RANGES MFEP

Emerald, Lilydale, Healesville & Upper Yarra Units

CASEY MFEP

Narre Warren Unit

Eumemmerring Creek at Narre Warren North

- Station No. 228235A
- Location: Belgrave-Hallam Rd, Narre Warren North
- Travel Time to Dandenong South: Between 4-6 hours
- Historical Flood Level: 2.87m (3rd February 2005)
- Historical Flood Level: 2.39m (13th November 2004)
- Significant Level: 3.8m Top of Left Bank at Gauge Location
- Significant Level: 4.4m Top of Right Bank at Gauge Location
- 1% AEP Flood Level: 3.83m

CASEY MFEP

Narre Warren Unit

ENDEAVOUR HILLS & DOVETON

- 6 properties at risk of flooding over-floor in a 1% AEP event

GREATER DANDENONG MFEP

Greater Dandenong Unit

Eumemmerring Creek at Dandenong South

- Station No. 228203C
- Location: Abbots Rd, Dandenong South
- Travel Time to Patterson Lakes: Between 2-11 hours
- Historical Flood Level: 3.49m (5th February 2011)
- Levee Height (Crest) at Gauge Location: 4.2m (Approximate)
- 1% AEP Flood Level: 3.80m

DANDENONG SOUTH

- 138 properties at risk of flooding in a 1% AEP event
- Big 4 Dandenong Tourist Park & Willow Lodge
- Mobile Home Retirement Village on Dandenong-Frankston Rd at risk from Levee over-topping at 4.8m on the Dandenong South Gauge
- South Gippsland Hwy at risk of flooding in a 1% AEP event

BANGHOLME

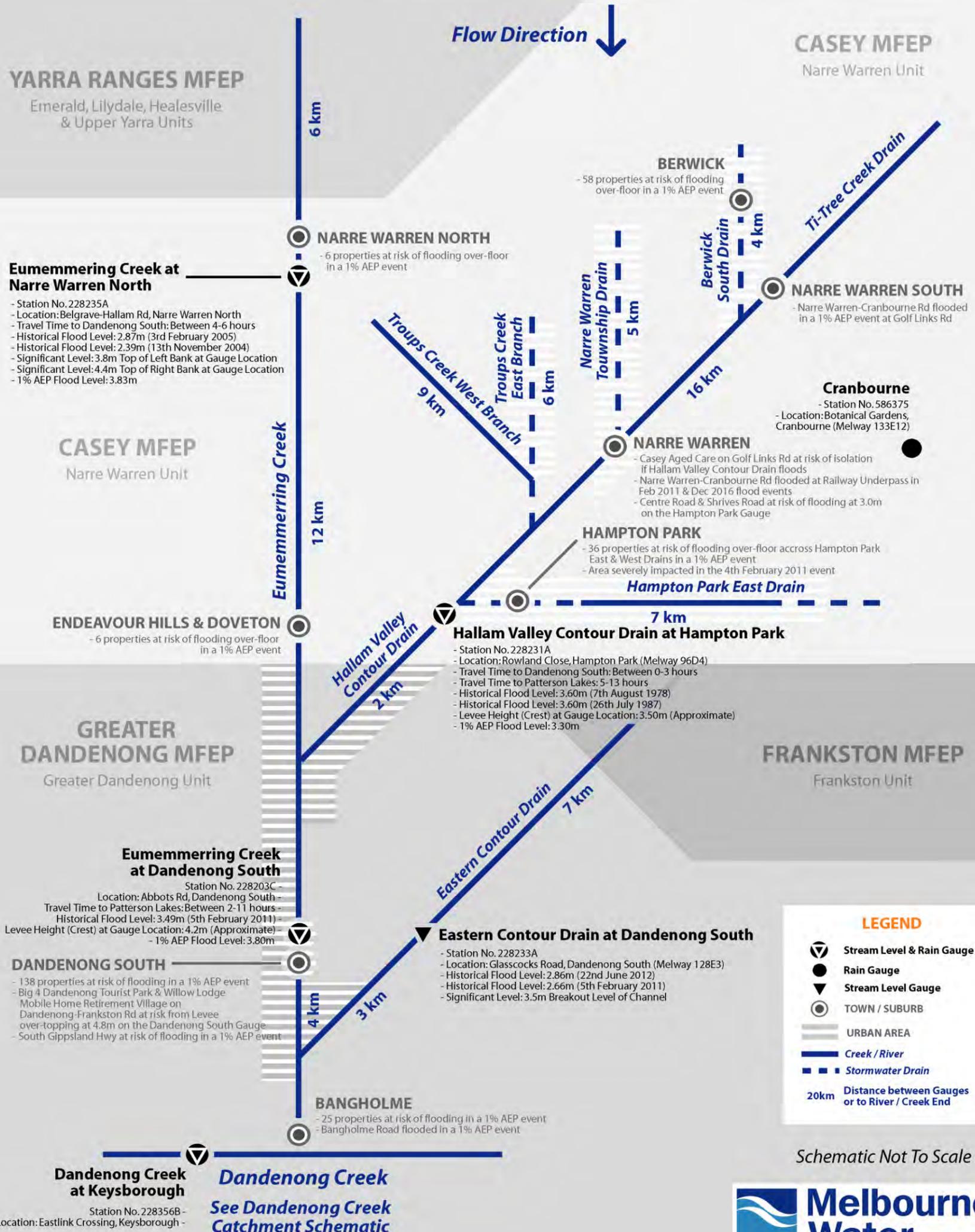
- 25 properties at risk of flooding in a 1% AEP event
- Bangholme Road flooded in a 1% AEP event

Dandenong Creek at Keysborough

- Station No. 228356B
- Location: Eastlink Crossing, Keysborough

Dandenong Creek
See Dandenong Creek Catchment Schematic

Flow Direction ↓



LEGEND

- Stream Level & Rain Gauge
- Rain Gauge
- Stream Level Gauge
- TOWN / SUBURB
- URBAN AREA
- Creek / River
- Stormwater Drain
- 20km Distance between Gauges or to River / Creek End

Schematic Not To Scale



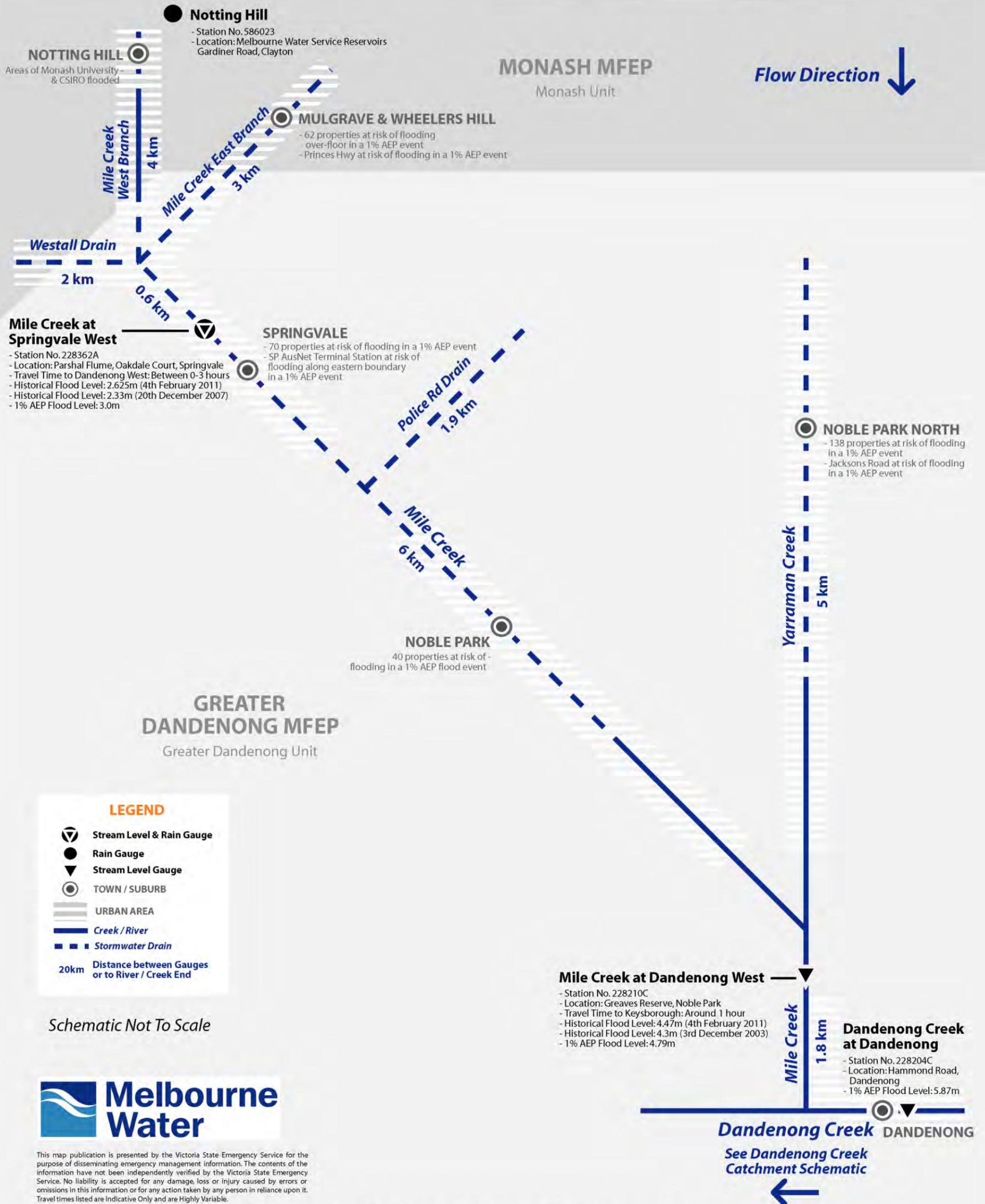
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Mile Creek & Yarraman Creek Catchment Schematic

Version 3 - April 2019



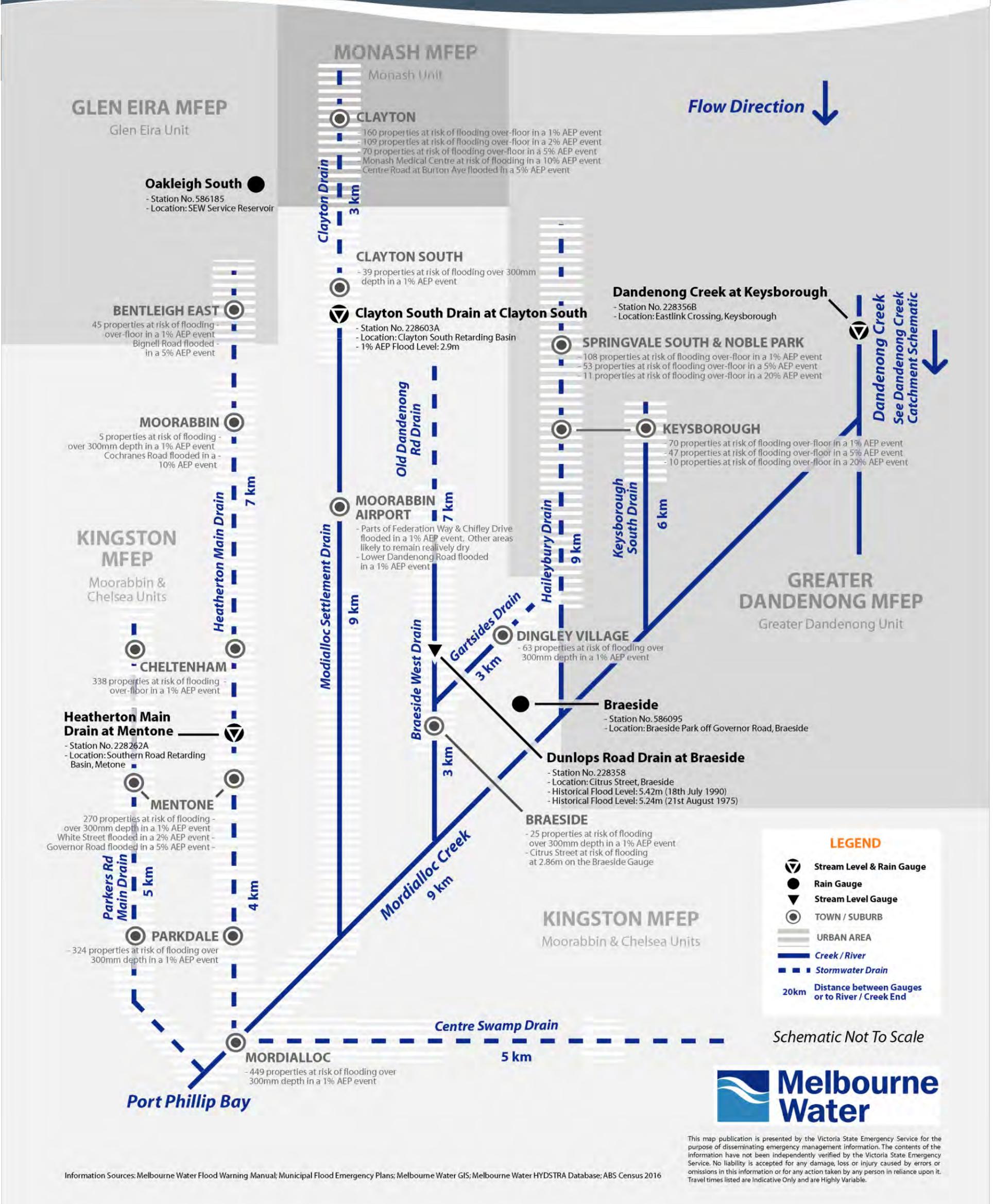
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Mordialloc Creek Catchment Schematic

Version 4 - April 2019



APPENDIX H – SEVERE WEATHER (STORM) EVENTS

Overview

The City of Greater Dandenong is susceptible to severe weather events because of a combination of its undulating terrain, urban boundary location and wind exposed properties. Storm events in the City of Greater Dandenong may be subject to include wind storms, hailstorms, and thunderstorms (including lightning activity). There have also been occurrences of atmospheric downbursts/microburst within Greater Dandenong and adjacent municipalities.

Severe storm activity could result in injuries and increase in road accidents. Damaging wind events will tend to lead to trees down, with damage to the built and natural environment. Obstructions across roads could disrupt services, affect community functioning and have great potential for road traffic delays.

This Appendix uses Request for Assistance (RFA) data from the Victoria State Emergency Service (VICSES) to display areas at risk from severe weather events.

VICSES requests for assistance

The Victoria State Emergency Service records requests for assistance made by the public during severe weather events. Tables H1 & H2 below is a breakdown of requests by suburb and date with damage type during the period July 2009 and December 2018.

VICSES Request for Assistance (July 2009 – December 2018)					
Suburb	Building Damage	Flooding	Other*	Tree Down	Tree Down Traffic Hazard
Bangholme	11	25	0	3	19
Dandenong	206	68	7	132	73
Dandenong North	132	52	0	121	55
Dandenong South	35	21	4	15	46
Keysborough	138	69	2	96	48
Lyndhurst	0	0	0	0	8
Noble Park	178	50	1	162	64
Noble Park North	61	24	1	60	20
Springvale	90	33	2	82	77
Springvale South	54	15	2	53	34

Table H1 – Breakdown of severe weather RFAs received by VICSES Greater Dandenong Unit by suburb

* Dam Incident, Rescue Persons Trapped

VICSES Request for Assistance (July 2009 – December 2018)					
Date	Building Damage	Flooding	Other*	Tree Down	Tree Down Traffic Hazard
July 2009	1	0	0	1	0
August 2009	14	0	0	28	17
September 2009	6	0	0	5	3
October 2009	6	2	0	0	1
November 2009	16	2	0	1	0
December 2009	9	0	0	3	1
January 2010	2	0	0	12	2
February 2010	14	0	0	8	5

VICSES Request for Assistance (July 2009 – December 2018)

Date	Building Damage	Flooding	Other*	Tree Down	Tree Down Traffic Hazard
March 2010	12	6	0	2	0
April 2010	3	0	0	1	0
May 2010	1	0	0	0	0
June 2010	7	1	0	6	2
July 2010	3	0	0	0	2
August 2010	6	0	0	3	4
September 2010	10	0	0	17	13
October 2010	13	7	0	9	6
November 2010	7	1	1	8	10
December 2010	19	8	0	6	4
January 2011	7	6	0	2	0
February 2011	41	208	12	8	8
March 2011	4	2	0	4	6
April 2011	6	1	0	1	0
May 2011	4	1	0	2	2
June 2011	7	1	0	5	2
July 2011	3	1	0	2	0
August 2011	1	0	0	0	0
September 2011	9	8	0	7	2
October 2011	0	1	0	1	0
November 2011	11	10	0	5	10
December 2011	5	0	0	1	0
January 2012	15	1	0	26	16
February 2012	16	0	0	31	16
March 2012	4	1	0	7	2
April 2012	24	4	0	18	7
May 2012	3	0	0	2	0
June 2012	3	12	0	5	1
July 2012	1	0	0	0	1
August 2012	3	1	0	1	0
September 2012	19	0	0	11	5
October 2012	3	0	0	1	0
November 2012	7	0	0	3	0
December 2012	6	1	0	7	1
January 2013	5	0	0	1	1
February 2013	9	0	0	3	3
March 2013	9	0	0	14	6
April 2013	5	0	0	5	2
May 2013	8	1	0	2	1
June 2013	8	0	0	0	2
July 2013	9	1	0	7	3
August 2013	8	1	0	15	10
September 2013	19	1	0	16	14
October 2013	66	1	0	90	41
November 2013	6	0	0	4	2
December 2013	5	0	0	1	5
January 2014	12	0	0	7	10
February 2014	1	0	0	4	5
March 2014	1	0	0	0	0
April 2014	1	0	0	2	1
May 2014	1	0	0	0	2
June 2014	17	0	0	23	12
July 2014	27	0	0	8	6
August 2014	7	0	0	3	1
September 2014	14	0	0	14	8
October 2014	3	2	0	7	2
November 2014	6	1	0	2	0

VICSES Request for Assistance (July 2009 – December 2018)					
Date	Building Damage	Flooding	Other*	Tree Down	Tree Down Traffic Hazard
December 2014	4	0	0	4	4
January 2015	3	1	0	6	3
February 2015	12	6	0	4	10
March 2015	11	1	0	25	7
April 2015	3	0	0	0	1
May 2015	1	0	0	0	4
June 2015	1	0	0	1	0
July 2015	4	0	0	2	1
August 2015	2	1	0	1	1
September 2015	0	0	0	1	0
October 2015	3	0	0	2	0
November 2015	3	2	0	5	6
December 2015	11	1	0	7	1
January 2016	6	2	1	8	5
February 2016	3	0	0	0	1
March 2016	7	0	0	12	9
April 2016	6	0	0	1	0
May 2016	22	2	1	20	8
June 2016	5	0	0	0	1
July 2016	8	0	0	7	7
August 2016	3	1	0	1	0
September 2016	0	1	0	0	2
October 2016	28	0	0	35	22
November 2016	5	0	0	2	0
December 2016	17	19	2	10	1
January 2017	4	0	0	3	3
February 2017	1	0	0	0	2
March 2017	10	2	0	5	2
April 2017	6	0	0	3	3
May 2017	2	0	0	1	1
June 2017	0	0	0	0	2
July 2017	4	0	0	2	0
August 2017	3	1	0	4	2
September 2017	2	0	0	1	1
October 2017	1	0	0	0	1
November 2017	4	0	0	0	1
December 2017	21	13	2	5	0
January 2018	8	1	0	3	5
February 2018	11	0	0	13	12
March 2018	9	0	0	12	6
April 2018	7	0	0	5	7
May 2018	6	0	0	2	0
June 2018	3	0	0	2	2
July 2018	10	0	0	10	5
August 2018	8	0	0	3	0
September 2018	1	0	0	2	0
October 2018	1	0	0	0	2
November 2018	11	7	0	6	3
December 2018	6	2	0	1	4

Table H2 – Breakdown of severe weather RFAs received by VICSES Greater Dandenong Unit by month

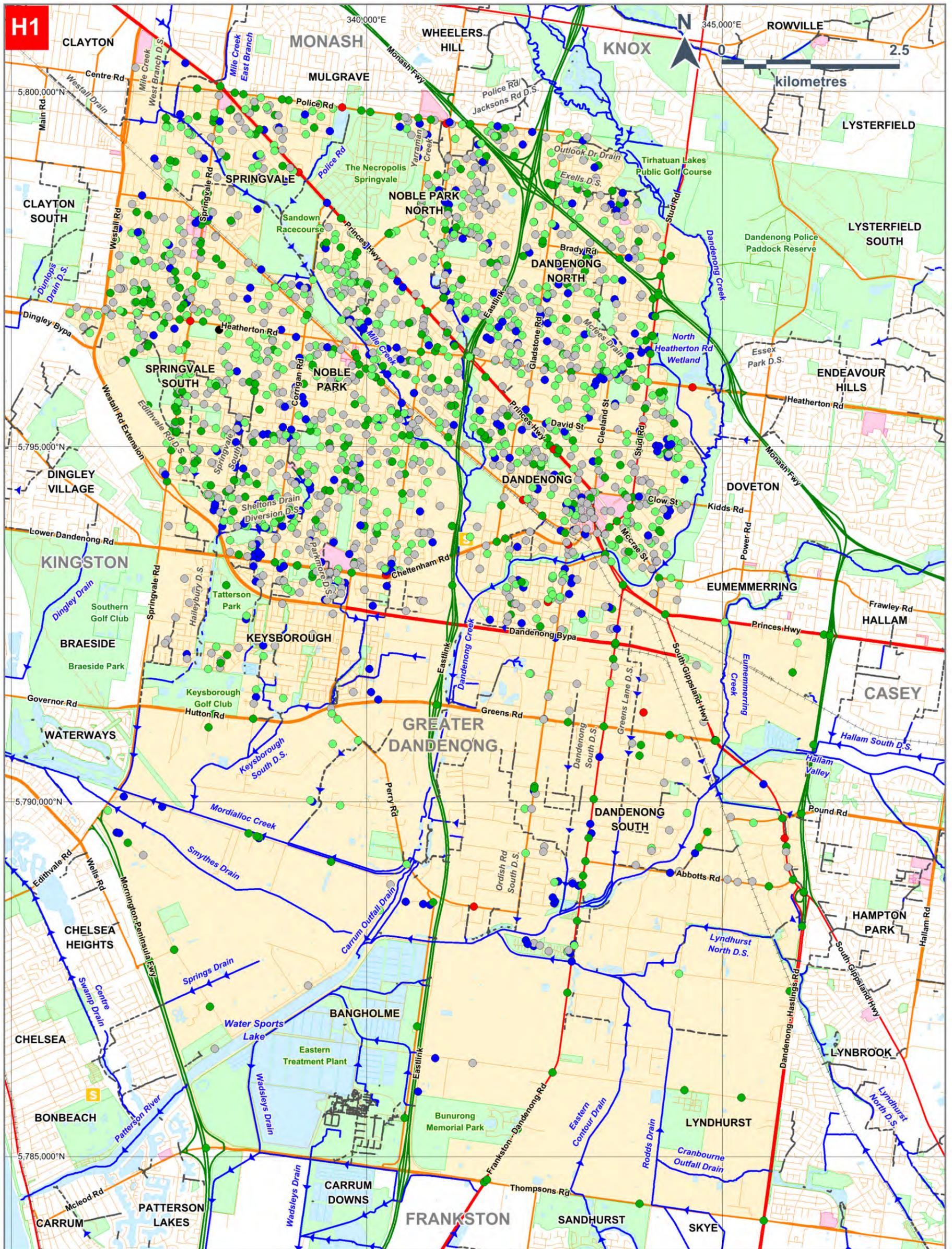
* Dam Incident, Rescue Persons Trapped

Large Storm Events

Typically the Greater Dandenong Unit would expect to be impacted by a large storm event per year (more than 40 RFA's per day).

Since 2010 the following larger storm events have occurred in the Hobsons Bay area:

- 4th & 5th February 2011 – Rain and storm event that saw **235 RFA's** received mainly for flash flooding and building damage
- 5th & 6th February 2012 – Windstorm event that saw **50 RFA's** received for Building Damage and Trees Down
- 26th – 30th September 2013 – Series of windstorms that saw **43 RFA's** for Building Damage and Trees Down
- 24th & 25th June 2014 – Windstorm that saw **47 RFA's** for Building Damage and Trees Down
- 9th & 10th October 2016 – Windstorm that saw **45 RFA's** for Building Damage and Trees Down



CITY OF GREATER DANDENONG

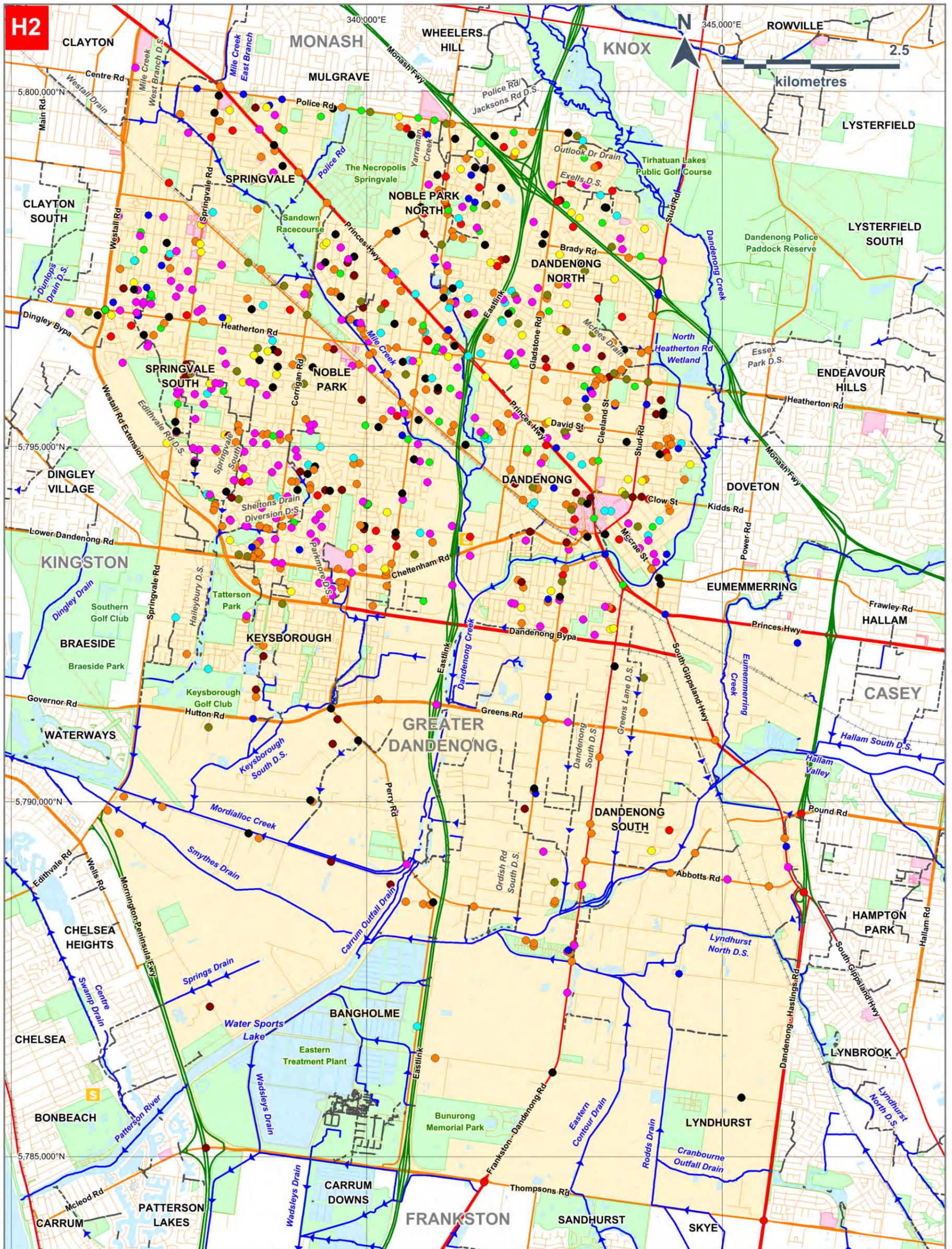
Version 3: March 2019

H1 - Severe Weather Request for Assistance (RFA) Received by Type (Jul 2009 - Dec 2018)

- | | |
|-------------------------|--------------------------------|
| Area Of Interest | Building Damage (905) |
| Waterbody | Dam Incident (1) |
| Shopping Precinct | Flooding (357) |
| Creek / Waterway | Rescue Persons Trapped (18) |
| Stormwater Drain | Tree Down (724) |
| State Emergency Service | Tree Down Traffic Hazard (445) |



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CITY OF GREATER DANDENONG
 Version 3: March 2019
H2 - Severe Weather Request for Assistance (RFA) Received by Date (Jul 2009 - Dec 2018)

- Area Of Interest
- Waterbody
- Shopping Precinct
- Creek / Waterway
- Stormwater Drain
- State Emergency Service

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