Banyule Municipal

Storm and Flood Emergency Plan

A Sub-Plan of the Municipal Emergency Management Plan

For the City of Banyule
And
VICSES Nillumbik & Heidelberg Units

Version 6.2, June 2022

Banyule
CITY COUNCIL

VICTORIA
State Government

SES

Intentionally Blank

Table of Contents

TABLE OF CONTENTS ..... **III**

DOCUMENT TRANSMITTAL FORM / AMENDMENT CERTIFICATE ..... **VIII**

LIST OF ABBREVIATIONS & ACRONYMS ..... **IX**

GLOSSARY .....

PART 1. INTRODUCTION **1**

1.1 APPROVAL AND ENDORSEMENT 1

1.2 PURPOSE AND SCOPE OF THIS STORM AND FLOOD EMERGENCY PLAN 1

1.3 MUNICIPAL STORM AND FLOOD PLANNING COMMITTEE (MSFPC) 1

1.4 RESPONSIBILITY FOR PLANNING, REVIEW & MAINTENANCE OF THIS PLAN 2

PART 2. PREVENTION/PREPAREDNESS ARRANGEMENTS **3**

2.1 COMMUNITY AWARENESS FOR ALL TYPES OF FLOODING 3

2.2 STRUCTURAL FLOOD MITIGATION MEASURES 3

2.3 NON-STRUCTURAL FLOOD MITIGATION MEASURES 3

2.3.1 Exercising the Plan *3*
2.3.1 Storm and Flood Warning *3*
2.3.2 Local Knowledge *3*

PART 3. RESPONSE ARRANGEMENTS **4**

3.1 INTRODUCTION 4

3.1.1 Activation of Response *4*
3.1.2 Responsibilities *4*
3.1.3 Council Emergency Operation Centre (CEOC) *4*
3.1.4 Escalation *4*

3.2 STRATEGIC EMERGENCY MANAGEMENT PRIORITIES 4

3.3 THE SIX C'S 5

3.3.1 Control *5*
3.3.2 Incident Controller (IC) *6*
3.3.3 Incident Control Centre (ICC) *6*
3.3.4 Divisions and Sectors *6*
3.3.5 Incident Management Team (IMT) *6*
3.3.6 Incident Emergency Management Team (IEMT) *6*
3.3.7 On Receipt of a Flood Watch / Severe Weather Warning *7*
3.3.8 On Receipt of the First and Subsequent Storm and/or Flood Warnings *7*

3.4 COMMUNITY INFORMATION AND WARNINGS 8

3.5 MEDIA COMMUNICATION 9

3.6 IMPACT ASSESSMENT 9

3.7 PRELIMINARY DEPLOYMENTS 9

3.8 RESPONSE TO FLASH AND RIVERINE FLOODING 9

3.9 EVACUATION 10

3.10 FLOOD RESCUE 11

3.11 AIRCRAFT MANAGEMENT 11

3.12 Resupply 11
3.13 Essential Infrastructure and Property Protection 12
3.14 Disruption to Services 12
3.15 Levee Management 13
3.16 Road Closures 13
3.17 Pedestrian Bridges 13
3.18 Dam failure and Landslide 14
3.18.1 Dam Failure *14*
3.18.2 Landslide *14*
3.19 Waste Water related Public Health Issues and Critical Sewerage Assets 14
3.20 Access to Technical Specialists 15
3.21 After-Action Review 15
PART 4. RELIEF AND RECOVERY ARRANGEMENTS 15
4.1 General 15
4.2 Emergency Relief 15
4.3 Animal Welfare 15
4.4 Transition from Response to Recovery 16
APPENDIX A - FLOOD THREATS FOR CITY OF BANYULE 17
General 17
Riverine Flooding 17
Flash Flooding and Overland Flows 17
Description of Major Waterways and Drains 18
Melbourne Water Drains *19*
APPENDIX B - TYPICAL FLOOD PEAK TRAVEL TIMES 24
Typical Travel Times 24
Historical Travel Times 24
APPENDIX C1 – YARRA RIVER FLOOD EMERGENCY PLAN 28
Overview of Flooding Consequences 28
Gauges and Warnings 29
Area Map of Flood Risk along the Yarra River 31
Properties at Flood Risk 32
Isolation 38
Essential Infrastructure 38
Road Closures 39
Flood Mitigation 39
Retarding Basins *39*
Sewerage Infrastructure 39

Sewer Pumping Stations 40
Sewer Emergency Relief Points 40
COMMAND, CONTROL AND COORDINATION 40

APPENDIX C2 – PLENTY RIVER FLOOD EMERGENCY PLAN 47

OVERVIEW OF FLOODING CONSEQUENCES 47

GAUGES AND WARNINGS 49

AREA MAP OF FLOOD RISK WITHIN THE PLENTY RIVER CATCHMENT 50

PROPERTIES AT FLOOD RISK 51

ISOLATION 62

ESSENTIAL INFRASTRUCTURE 62

ROAD CLOSURES 62

FLOOD MITIGATION 64

Retarding Basins 64
Levees 64
SEWERAGE INFRASTRUCTURE 65

Sewer Emergency Relief Points 65
COMMAND, CONTROL AND COORDINATION 65

FLOOD IMPACTS AND OPERATIONAL CONSIDERATIONS (INTELLIGENCE CARDS) 65

APPENDIX C3 – DAREBIN CREEK FLOOD EMERGENCY PLAN 75

OVERVIEW OF FLOODING CONSEQUENCES 75

GAUGES AND WARNINGS 77

AREA MAP OF FLOOD RISK WITHIN DAREBIN CREEK CATCHMENT 78

PROPERTIES AT FLOOD RISK 79

ISOLATION 96

ESSENTIAL INFRASTRUCTURE 96

ROAD CLOSURES 96

FLOOD MITIGATION 97

Retarding Basins 97
SEWERAGE INFRASTRUCTURE 97

Sewer Emergency Relief Points 97
COMMAND, CONTROL AND COORDINATION 97

FLOOD IMPACTS AND OPERATIONAL CONSIDERATIONS (INTELLIGENCE CARDS) 98

APPENDIX C4 – SALT CREEK & BANYULE DRAIN FLOOD EMERGENCY PLAN 105

OVERVIEW OF FLOODING CONSEQUENCES 105

GAUGES AND WARNINGS 106

AREA MAP OF FLOOD RISK WITHIN THE SALT CREEK CATCHMENT 107

PROPERTIES AT FLOOD RISK 108

ISOLATION 119

ESSENTIAL INFRASTRUCTURE 119

ROAD CLOSURES 119
FLOOD MITIGATION 120
Retarding Basins *120*
SEWERAGE INFRASTRUCTURE 121
Sewer Emergency Relief Points *121*
COMMAND, CONTROL AND COORDINATION 121
FLOOD IMPACTS AND OPERATIONAL CONSIDERATIONS (INTELLIGENCE CARDS) 121
APPENDIX C5 – ST HELENA & KARINGAL YALLOCK DRAINS FLOOD EMERGENCY PLAN 126
OVERVIEW OF FLOODING CONSEQUENCES 126
GAUGES AND WARNINGS 127
AREA MAP OF FLOOD RISK AROUND THE ST HELENA AND KARINGAL YALLOCK DRAINS 128
PROPERTIES AT FLOOD RISK 129
ISOLATION 136
ESSENTIAL INFRASTRUCTURE 136
ROAD CLOSURES 137
FLOOD MITIGATION 138
Retarding Basins *138*
SEWERAGE INFRASTRUCTURE 138
COMMAND, CONTROL AND COORDINATION 138
FLOOD IMPACTS AND OPERATIONAL CONSIDERATIONS (INTELLIGENCE CARDS) 139
APPENDIX D - FLOOD EVACUATION ARRANGEMENTS 144
EMERGENCY RELIEF CENTRES 144
PHASE 1 - DECISION TO EVACUATE 144
PHASE 2 – WARNING 145
PHASE 3 – WITHDRAWAL 145
Vulnerable People in Emergencies *147*
PHASE 4 – SHELTER 147
Animal Shelter *147*
Caravans *147*
PHASE 5 – RETURN 147
DISRUPTION TO SERVICES 148
ESSENTIAL INFRASTRUCTURE AND PROPERTY PROTECTION 148
RESCUE 148
APPENDIX E – STORM AND FLOOD WARNING SYSTEMS 149
STORM AND FLOOD WARNING 149
FLOOD BULLETINS 149
LOCAL FLOOD WARNING SYSTEM ARRANGEMENTS 150
APPENDIX F – MAPS 151
OVERVIEW 151

CITY OF BANYULE MUNICIPAL MAPS (SOURCED MELBOURNE WATER GIS) 152

FLOOD EXTENT MAPS (SOURCED MELBOURNE WATER GIS) 155

APPENDIX G – SANDBAG ARRANGEMENTS 168

GENERAL 168

MEMP 168

OPERATIONAL 168

Sandbag Storage Locations *168*
Sand Suppliers *169*
Sandbag Collection Points *169*
Machinery Supply *170*

POST OPERATIONAL 170

Clean up and Disposal *170*

APPENDIX H – SEVERE WEATHER (STORM) EVENTS 171

OVERVIEW 171

LARGE STORM EVENTS 171

VICSES REQUESTS FOR ASSISTANCE (RFAS) 171

Document Transmittal Form / Amendment Certificate

This Municipal Storm & Flood Emergency Plan (MSFEP) will be amended, maintained and distributed as required by VICSES in consultation with the Banyule City Council.

Suggestions for amendments to this Plan should be forwarded to VICSES Regional Office via

Operations Officer – Emergency Management
North West Metro,
239 Proximity Drive, Sunshine West VIC 3020

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
Draft 2.2	June 2012	L Daniels	
Draft 2.7	Nov 2012	R Butler	Mapping entered
Draft 2.8	Nov 2012	A Barnard	Updated data
Draft 2.9	Dec 2012	A Barnard	Amendments following 2nd Meeting
Final 3.0	May 2013	A Barnard	Mapping Updates
Draft 4.0	Jan 2016	R Butler	Appendix A, B, C, F Updated and Appendix G added
Draft 4.1	Jan 2016	G Abbott	Conversion of Plan to Storm and Flood Emergency Plan
Final 4.1	August 2016	R Gibney	Operationalising of plan
Final 5.0	May 2018	R Butler	Appendix A, B, C, F & G Updated
Draft 6.0	June 2020	R Butler	New template applied. Appendix A, B, C, F & G Updated. Addition of Appendix H
Draft 6.1	October 2021	B Langan	Update of body inline with significant changes. Updates to appendices D and E.
Final 6.2	June 2022 August 2023	B Langan M Patton	Update of template for legislative requirements post EMLA being enacted. Update to plan to align with SEMP. Administration changes - MEMPC approved – Endorsed by REMPC

This Plan will be maintained on the VICSES Website and the Banyule City Council Intranet website as a sub plan of the MEMP.

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	FRV	Fire Rescue Victoria
AEP	Annual Exceedance Probability	FWS	Flood Warning System
AHD	Australian Height Datum (the height of a location above mean sea level in metres)	FZ	Floodway Zone
AIDR	Australian Institute of Disaster Resilience	IC	Incident Controller
AIIMS	Australasian Inter-service Incident Management System	ICC	Incident Control Centre
AoCC	Area of Operations Control Centre / Command Centre	IMT	Incident Management Team
ARI	Average Recurrence Interval	IMS	Incident Management System
ARMCANZ	Agricultural & Resource Management Council of Australia & New Zealand	EMLO	Emergency Management Liaison Officer
AV	Ambulance Victoria	LSIO	Land Subject to Inundation Overlay
BoM	Bureau of Meteorology	MECC	Municipal Emergency Coordination Centre
CEO	Chief Executive Officer	MEMP	Municipal Emergency Management Plan
CERA	Community Emergency Risk Assessment	MEMPC	Municipal Emergency Management Planning Committee
CFA	Country Fire Authority	MERC	Municipal Emergency Response Coordinator
CMA	Catchment Management Authority	MEMO	Municipal Emergency Resource Officer
RERC	Regional Emergency Response Coordinator	MRM	Municipal Recovery Manager
RERCC	Regional Emergency Response Coordination Centre	PMF	Probable Maximum Flood
DFFH	Department of Families, Fairness and Housing	RCC	Regional Control Centre
DH	Department of Health	RDO	Regional Duty Officer
DoI	Department of Infrastructure	SBO	Special Building Overlay
DOT	Department of Transport	SCC	State Control Centre
DJSIR	Department of Jobs, Skills, Industry and Regions	SEMP	State Emergency Management Plan
DEECA	Department of Energy Environment Climate and Action	SEWS	Standard Emergency Warning Signal
EMMV	Emergency Management Manual Victoria	SHERP	State Health Emergency Response Plan
EMT	Emergency Management Team	SOP	Standard Operating Procedure
EO	Executive Officer	VicPol	Victoria Police
FO	Floodway Overlay	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.
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 Banyule 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 Approval and Endorsement

This Municipal Storm and Flood Emergency Plan (MSFEP) has been prepared by a subcommittee of the Municipal Emergency Management Planning Committee (MEMPC) and with the authority of the MEMPC pursuant to Section 20 of the Emergency Management Act 1986 (as amended).

This MSFEP is a sub plan to the Banyule Municipal Emergency Management Plan (MEMP). It is consistent with the State Emergency Management Plan (SEMP), State Flood Emergency Plan and State Storm Emergency Plan (sub-plans of the now superseded State Emergency Response Plan and transitioned to be sub-plans of the SEMP).

It is also consistent with the Victoria State Emergency Service (VICSES) North West Metro Region Storm and Flood Emergency Plans and the Victorian Flood Management Strategy and takes into account the outcomes of the Community Emergency Risk Assessment (CERA) process undertaken by the Banyule Municipal Storm and Flood Planning Committee (MSFPC).

The MSFEP is consistent with the Regional Flood Emergency Plan, Regional Storm Emergency Plan and the State Flood Emergency Plan.

This MSFEP is a result of the cooperative efforts of the Banyule MSFPC and its member agencies.

Minor and administrative amendments will be made to this MSFEP from time to time without representing the Plan to the MEMPC. Any major structural or policy changes will be considered before adoption.

This Plan is to be endorsed by the Banyule MEMPC as a sub-plan to the MEMP.

1.2 Purpose and Scope of this Storm and Flood Emergency Plan

The purpose of this Plan is to detail arrangements agreed for the planning, preparedness/prevention, response and recovery from storm and flood incidents within Banyule. As such, the scope of the Plan is to:

- Identify the storm and flood Risk to the municipality;
- Support the implementation of measures to minimise the causes and impacts of flood incidents;
- 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.

1.3 Municipal Storm and Flood Planning Committee (MSFPC)

Membership of Banyule Storm and Flood Planning Subcommittee (MSFPC) will comprise of the following representatives invited from the following agencies and organisations:

- VICSES (i.e. Unit Controller & Operations Officer – Emergency Management) **(Chair)**,
- Banyule City Council - Municipal Emergency Management Officer (MEMO)
- Victoria Police (Banyule Municipal Emergency Response Co-ordinator) (MERC),

- Catchment Management Authority,
- Department of Families, Fairness and Housing (DFFH) as required,
- Department of Health (DH) as required;
- Department of Energy, Environment and Climate Action (DEECA) as required,
- Water Authorities as required,
- Bureau of Meteorology as required,
- Other agencies as required

1.4 Responsibility for Planning, Review & Maintenance of this Plan

This MSFEP must be maintained in order to remain effective. This Plan must be assured, approved and published every three years, or more frequently if required.

VICSES through the MSFPC has responsibility for preparing, reviewing, maintaining and distributing this Plan.

The MSFPC will meet at least once per year or as required.

The plans should be reviewed and where necessary, arrangements and information contained in it should be amended:

- Following any new flood or stormwater drainage study;
- Following a change in non-structural and/or structural flood mitigation measures;
- After the occurrence of a significant storm and/or flood event within the Municipality.

Part 2. PREVENTION/PREPAREDNESS ARRANGEMENTS

2.1 Community Awareness for all Types of Flooding

This Plan will be published and maintained on the VICSES website. This will occur following any updates and amendments and in accordance with assurance, approval and publishing requirements.

VICSES with the support of Banyule City Council and Melbourne Water will coordinate community education programs for storm and flooding within the council area (i.e. Local Flood Guides and public events). Engagement will include raising awareness about the projected impacts on the frequency and intensity of flood and storm events and what actions can be taken to minimise these impacts.

Community engagement programs to support this Plan may be developed in conjunction with the local VICSES unit. VICSES Heidelberg Unit and VICSES Nillumbik Unit may lead the delivery of programs with support from Banyule City Council and VICSES North West Metro Region.

2.2 Structural Flood Mitigation Measures

Refer to **Appendices 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 and or reviewed after a significant event).

2.3.1 Storm and Flood Warning

Arrangements for storm and flood warning are contained within the State Flood Emergency Plan and State Storm Emergency Plan (ses.vic.gov.au/em-sector/vicses-emergency-plans), the SEMP and on the Bureau of Meteorology (BoM) website (bom.gov.au). Specific details of local storm and flood warning system arrangements are provided in **Appendix E**.

2.3.2 Local Knowledge

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

There are no official Community Flood Observers within the Banyule municipality however local knowledge is incorporated into this plan through consultation with local response agencies.

Previous event history and likely operational considerations are noted in the Flood Intelligence Cards in **Appendix C**.

In line with the VICSES Local Knowledge Policy, reviews of this plan will be undertaken with input from multiple local sources to ensure appropriate local knowledge can be captured before, during and after incidents.

Part 3. RESPONSE ARRANGEMENTS

3.1 Introduction

3.1.1 Activation of Response

Storm and flood response arrangements may be activated by the VICSES Regional Duty Officer (RDO), Regional Agency Commander (RAC) or Incident Controller (IC).

The IC/ VICSES North West Metro RDO will activate agencies as required and documented in the State storm Emergency Plan and the State Flood Emergency Plan (see ses.vic.gov.au/em-sector/vicses-emergency-plans).

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 Banyule. These agencies will be engaged through the Incident Emergency Management Team (IEMT).

The general roles and responsibilities of supporting agencies are as agreed within the Banyule MEMP, the SEMP (Roles and Responsibilities), State Flood and Storm Emergency Plans and VICSES North West Metro Region Storm and Flood Emergency Plans (ses.vic.gov.au/em-sector/vicses- emergency-plans).

3.1.3 Council Emergency Operation Centre (CEOC)

The function, location, establishment and operation of the CEOC will be as detailed in the Banyule MEMP. Liaison with the CEOC will be through the VICSES North West Metro Region RDO/RAC/IC or established ICC. If a CEOC is not operating, the Banyule Municipal Emergency Management Officer (MEMO) will be contacted.

3.1.4 Escalation

Most storm and/or 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 SEMP.

3.2 Strategic Emergency Management Priorities

To provide guidance to the Incident Management Team (IMT) and Incident Emergency Management Team (IEMT), the following State Emergency Management 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 IC 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 The Six C's

Arrangements in this MSFEP must be consistent with the Six C's detailed in State and Regional Flood and Storm Emergency Plans. For further information, refer to the SEMP.

- **Control:** Overall direction of response activity in an emergency, operating horizontally across agencies.
- **Command:** Internal direction of personnel and resources within an agency.
- **Coordination:** Bringing together agencies and resources to ensure effective preparation for response and recovery.
- **Consequence:** Management of the effect of emergencies on individuals, communities, infrastructure and the environment.
- **Communication:** Engagement and provision of information across agencies and proactively with the community around preparation, response and recovery in emergencies.
- **Community Connection:** Understanding and connecting with trusted networks, leaders and all communities to support resilience and decision making.

Specific details of arrangements for this Plan are to be provided in **Appendix C**.

3.3.1 Control

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

Table 9 of the SEMP (Roles and Responsibilities) identifies VICSES as the Control Agency for storm and flood. It identifies the Department of Energy, Environment and Climate Action (DEECA) 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 Banyule 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 their delegated representative.

3.3.2 Incident Controller (IC)

An IC will be appointed by VICSES (as the Control Agency), to command and control available resources in response to a storm and/or flood event on the advice of the BoM (or another reliable source) that a storm and/or flood event will occur or is occurring. The IC responsibilities are as defined in the SEMP.

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 Incident Control Centre locations are

- Sunshine ICC
- Dandenong ICC
- Ferntree Gully ICC

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 storms and flooding within the municipality.

Pre-determined Divisional Command Point (DCP) locations may include:

Division	Sector
VICSES Knox Unit DCP 607 Burwood Hwy, Knoxfield VIC 3180	**Heidelberg Unit ICP** 442-446 Waterdale Road, Heidelberg Heights VIC 3081 **Nillumbik Unit ICP** 58 Susan St, Eltham VIC 3095

3.3.5 Incident Management Team (IMT)

The IC will form an IMT in line with Australasian Inter-service Incident Management System (AIIMS) principles. Refer to the SEMP for guidance on IMTs.

3.3.6 Incident Emergency Management Team (IEMT)

The IC will establish a multi-agency IEMT to assist with the storm and/or flood response. The IEMT 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 IC for consideration in developing incident management strategies.

Organisations required within the IEMT (including Banyule City Council) 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 the SEMP for guidance on IEMTs.

3.3.7 On Receipt of a Flood Watch / Severe Weather Warning

The VICSES RDO (until an Incident Controller is appointed) will undertake actions as defined within the Flood Intelligence Cards (**Appendix C**). General considerations by the VICSES RDO/IC will be as follows:

- Review storm and flood intelligence to assess likely storm and flood consequences
- Monitor weather and flood information – (see 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 the Regional Control Centre (RCC) (if established), State Control Centre (SCC) (if established), Council (as outlined in the Banyule MEMP) and other emergency services through the IEMT.
- 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

3.3.8 On Receipt of the First and Subsequent Storm and/or Flood Warnings

VICSES North West Metro RDO/ IC (until an incident controller is appointed) will consider actions as defined within the flood intelligence cards (**Appendix C**). General considerations by the Incident Controller/VICSES RDO 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
- What areas may be at risk of building damage.

- 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 storm or flood situation
  - Storm and/or flood predictions
  - What the consequences of predicted activity and/or 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 – (bom.gov.au/vic/flood/)
- Continue to conduct reconnaissance of low-lying areas

3.4 Community Information and Warnings

Guidelines for the distribution of community information and warnings are contained in the VICSES North West Metro Region Storm and Flood Emergency Plans and State Storm and Flood Emergency Plans. 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 websites, including VicEmergency website
- VicEmergency Hotline
- Variable Message Signs (i.e. road signs)
- Community meetings and connecting to trusted community networks
- Newspapers
- Email
- Newsletters
- Letter drops

- Social media and/or social networking sites (i.e. Twitter and/or Facebook).

Refer to **Appendix C and 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.

Responsibility for public information, including media briefings, rest with VICSES as the Control Agency. Banyule City Council will assist VICSES to warn individuals within the community where practicable, including activation of flood warning systems, where they exist. Other agencies such as the Country Fire Authority (CFA), DEECA and Victoria Police (VicPol) may be requested to assist VICSES with the communication of community storm and/or flood warnings.

In cases where severe flash flooding is predicted, dam failure is likely or flooding necessitating evacuation of communities is predicted, the IC 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.

3.5 Media Communication

The IC, through the Public Information Unit established at the ICC, will manage media communication. If the ICC is not established, the VICSES RDO will manage all media communication. Banyule City Council will work with the IC/VICSES RDO to assist with the dissemination of public messaging and/or warnings to ensure that consistent and timely messaging occurs.

3.6 Impact assessment

Impact Assessment (IA) can be conducted in accordance with State doctrine and Standard Operating Procedures (SOPs) to assess and record the extent and nature of damage caused by storms and/or flooding. This information may then be used to provide the basis for further needs assessment and recovery planning by Banyule City Council, DFFH and other applicable recovery agencies. The control agency is responsible for coordinating the collection, collation and dissemination of IA information on a whole-of government basis during the emergency response. The purpose, function and conduct of IA is outlined in the State Flood and State Storm Emergency Plan. All IA must be conducted in accordance with current State impact assessment doctrine and SOPs.

3.7 Preliminary Deployments

When storm impacts and/or flooding are expected to be severe enough to cut access to towns, suburbs and/or communities, the IC 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 and relief centres (in line with the Banyule MEMP).

3.8 Response to Flash and Riverine Flooding

Emergency management response to flash/riverine flooding should be consistent with the guideline for the emergency management of flash/riverine flooding contained within the

VICSES North West Metro Region Storm and Flood Emergency Plans and the State Storm and Flood Emergency Plans.

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

1. Determine if there are barriers to evacuation by considering warning time, safe routes, and resources available.

2. If evacuation is possible, then evacuation should be the adopted strategy and it must be supported by 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 unsuitable, 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.

6. Contact the Municipal Emergency Response Coordinator (MERC), Banyule Council MEMO and Municipal Recovery Manager (MRM) at the earliest opportunity to allow relief preparation to commence.

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

Response arrangements for flash and riverine flood events may be contained in **Appendix C**. Refer to the VicTraffic website for road closures (alerts.vicroads.vic.gov.au/).

3.9 Evacuation

In Victoria, evacuation is largely voluntary, however in particular circumstances, legislation provides some emergency services with authority to remove people from areas or prohibit their entry. The decision to recommend or warn people to prepare to evacuate or to evacuate immediately rests with the IC, and where possible the IEMT. It is the choice of individuals as to how they respond to this recommendation.

Once the decision is made, Victoria Police are responsible for the coordination of the evacuation process. VICSES and other agencies will assist where practical. VICSES is responsible for the development and communication of evacuation warnings.

VicPol (and/or delegate to Australian Red Cross) may take on the responsibility of registering people affected by the emergency (through the 'Register Find Reunite' program) including those who have been evacuated.

Evacuation operations should be consistent with the Joint Standard Operating Procedure on Evacuation (JSOP3.12). Guidelines for best practice for planning evacuations are provided in Australian Institute for Disaster Resilience Handbook 4, available at: knowledge.aidr.org.au/resources/handbook-evacuation-planning/.

Refer to details within the Victoria Police Banyule Evacuation Plans for further guidance on evacuations for emergencies. If evacuation is determined as appropriate, City of Banyule MEMO and MRM should be notified as soon as possible.

Refer to **Appendix D** of this Plan for detailed evacuation arrangements for the City of Banyule.

3.10 Flood Rescue

VicPol, as the designated Control Agency for water rescue, coordinates rescues undertaken during flood events.

In order to activate water rescue services, VICSES as the Control Agency for overall flood response, will identify areas at risk of requiring rescue and notify the Officer in Charge of the Water Police Search and Rescue Squad to request pre-deployment of rescue resources to those areas.

In conducting rescues, VicPol may require the assistance of appropriately trained and equipped personnel. In these circumstances, appropriately trained and equipped VICSES units or other agencies 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.

3.11 Aircraft Management

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

Air support operations will be conducted under the control of the IC in line with State Aircraft Unit Policy 01- Air Operations. The IC may request aircraft support through the State Aircraft Desk located at the SCC. The SCC will establish priorities.

Suitable airbase facilities are located at:

- Essendon
- Moorabbin

3.12 Resupply

Communities, neighbourhoods or households can become isolated during storms or floods because 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 may assist with the transport of essential items to isolated communities and assist with logistics functions.

Resupply operations will be implemented in accordance with the Banyule MEMP emergency relief arrangements.

3.13 Essential Infrastructure and Property Protection

Essential Infrastructure and Property (e.g. residences, roads, utilities and telecommunications etc.), may be affected in the event of a storm and/or flood.

The IC will ensure that owners of Essential Infrastructure are kept advised of the storm and/or flood situation. Essential Infrastructure providers must keep the IC informed of their status and ongoing ability to provide services.

The IC will determine the priorities related to the use of sandbags, which will be consistent with the State Emergency Management Priorities.

Banyule City Council maintains no stock of sandbags; and 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 and the VICSES Sandbag Policy.

If VICSES sandbags are becoming limited in supply, then priority will be given to protection of Essential Infrastructure. Other high priorities may include, for example, the protection of historic buildings. If time permits, requests for supplementary supply should be carried out in line with the City of Banyule MEMP.

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 Melbourne Water, Banyule Council and VicPol, and within appropriate approval frameworks.

Refer to **Appendix C** for further specific details of essential infrastructure requiring protection. Sandbag collection points will only be established as needed.

3.14 Disruption to Services

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

3.15 Levee Management

Levee owners/operators are responsible for the maintenance, operation and monitoring of their levees. Levee owners/operators must keep the IC informed of levee status' and be prepared to provide expert advice to the IC about the design and construction of their levees.
In accordance with the State Emergency Management Priorities, the IC may assist levee owners to coordinate resources, both technical and physical, to provide advice and affect temporary repairs to, or augmentation of, levees.

Levees within the Banyule municipality are listed in **Appendix C**.

3.16 Road Closures

Banyule Council, VicPol and the Department of Transport (DoT) will carry out their formal functions of road closures. This includes the observation and placement of warning signs and road blocks to its designated local and regional roads, bridges, walking and bike trails. VicPol may liaise with and advise DoT and Banyule Council staff of the need to erect warning signs and / or of closure of roads and bridges under its jurisdiction. DoT are responsible for designated main roads and highways and Councils are responsible for the designated local and regional road network.

DoT, VicPol and the Banyule City Council will communicate community information regarding road closures as outlined in the Banyule MEMP.

3.17 Pedestrian Bridges

The pedestrian bridges listed below are subject to inundation when flooding occurs. Banyule City Council will check for damage after heavy rain and if required close the bridges.

1 George Crt
2 Willinda Running Track
3 Rand St / Poulter
4 Elder St
5 Palara Crt /Yallambie Park
6 Yallambie Park Two bridges
7 Kalparrin Park
8 Glen Katherine Dr, Settlers Park
9 Heidelberg Tennis Club
Burgundy St
10 Dobson Rd /Montmorency Park

The bridges are signed with following:

WHEN BRIDGE IS SUBMERGED
PLEASE CONTACT

BANYULE CITY COUNCIL

94904222

QUOTE BRIDGE (1)

Note: – the number in brackets refers to the # number listed above.

3.18 Dam failure and Landslide

3.18.1 Dam Failure

DEECA 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 Municipality are contained in Appendix A. Banyule would likely be impacted by the failure of the following Dams:

- Maroondah Dam. (GHD, 2016 – Maroondah Dam Break and Consequence Assessment. MWC Report No. DAM610).
- Sugarloaf Dam. (HARC, 2018 – Sugarloaf Hydrology, Dam Break and Consequence Assessment. MWC Report No. DAM634).
- Upper Yarra Dam. (SKM, 2012 – Upper Yarra Dam Break & Consequence Assessment. MWC Report No. DAM565).
- Yan Yean Dam. (URS, 2014 – Yan Yean Hydrology, Dam Break & Consequence Assessment. MWC Report No. DAM571).

There are also a number of smaller private dams which could cause damage if they failed.

3.18.2 Landslide

VICSES is the Control Agency for landslide incidents. VICSES is also the Control Agency for any flooding that may result.

3.19 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 and the Banyule MEMO 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 VICSES RDO/IC or established ICC in the event of inundation of critical sewerage assets.

It is the responsibility of the Banyule Environmental Health Officer to inspect and report to the MEMO and the ICC on any water quality issues relating to flooding.

General public health information and messages are provided by the Banyule City Council, DFFH and DH and may contain information that is relevant prior to, during and following an incident. Information may be provided in sub plans to the MEMP, specific health notifications and, after discussion within the IEMT, may be included in Flood Bulletins.

3.20 Access to Technical Specialists

VICSES manages contracts with private technical specialists who can provide technical assistance in the event of flood operations or geotechnical expertise. Refer to VICSES SOP061 for the procedure to engage these specialists.

3.21 After-Action Review

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

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

Part 4. RELIEF AND RECOVERY ARRANGEMENTS

4.1 General

Arrangements for relief and recovery from any emergency, including a storm and/or flood incident within Banyule are detailed in the Banyule MEMP and the Relief and Recovery Sub Plan.

4.2 Emergency Relief

The IC recommends the need for emergency relief services with advice from the emergency management team (such as the IEMT), including the MEMO and MRM. The IC is responsible for ensuring that relief arrangements have been considered and implemented where required under the State Emergency Relief and Recovery Plan. These should be carried out in line with the Banyule MEMP.

The responsibility for local relief and recovery sits with local government, regional requirements are escalated to DFFH. If relief and recovery arrangements are required the IC should contact the MEMO, MRM and MERC.

The range and type of emergency relief services to be provided in response to a storm and/or flood event will be dependent upon the scale and impact of the storm/flood.

Banyule City Council has many facilities suitable for relief activities. Suitable emergency relief/recovery facilities identified for use during storms and/or floods are detailed in the Banyule MEMP. The MRM will facilitate access to emergency relief/recovery facilities as required. The MEMO will facilitate access to staging areas as required.

4.3 Animal Welfare

Matters relating to the welfare of livestock (including feeding and rescue) are to be referred to the Department of Energy Environment and Climate Action (DEECA). Requests for emergency supply and/or delivery of fodder to stranded livestock or for livestock rescue are passed to DEECA.

Matters relating to companion animals will be shared between Banyule City Council and RSPCA/ Animal Aid. Council assists, where possible, in the support and temporary rehousing of displaced companion animals.

Matters relating to the welfare of wildlife are to be referred to DEECA and Banyule City Council.

Requests for emergency supply and/or delivery of fodder to stranded animals or for animal rescue should be referred through the MEMO.

4.4 Transition from Response to Recovery

VICSES, as the Control Agency, is responsible for ensuring effective transition from response to recovery. Transition should occur in consultation with emergency management teams (including IEMT and MRM).

Further information about transition is provided in the SEMP and the Banyule MEMP. Banyule City Council will lead municipal recovery activity as outlined in the MEMP.

APPENDIX A - FLOOD THREATS FOR CITY OF BANYULE

General

The City of Banyule encompasses an area of 62.5km^2 and is bordered by the City of Whittlesea to the north-west, City of Nillumbik to the north-east and east, City of Manningham to the south-east, City of Boroondara to the south, City of Yarra to the south-west and City of Darebin to the west.

The Banyule municipality includes the suburbs of: Bellfield, Briar Hill, Bundoora, Eaglemont, Eltham, Eltham North, Greensborough, Heidelberg, Heidelberg Heights, Heidelberg West, Ivanhoe, Ivanhoe East, Lower Plenty, Macleod, Montmorency, Rosanna, St Helena, Viewbank, Watsonia, Watsonia North and Yallambie (See Map B in **Appendix F**).

The Banyule municipality is predominately residential with some small to medium business, retail and industrial areas including:

- West Heidelberg Industrial Estate, West Heidelberg – a combination of light to medium industrial and car repair businesses;
- Burgundy Street Commercial Area, Heidelberg – a mixed shopping strip and centre retail area centred around Burgundy Street; and
- Greensborough Shopping Centre (and surrounds), Greensborough – a mixed shopping strip and centre retail area centred on the Greensborough Shopping Centre.

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.

The City of Banyule is bordered by the Yarra River to the south, Darebin Creek to the west and is cut down the middle by the Plenty River flowing from the north and connecting with the Yarra River to the south. Despite the large catchment areas of these rivers and creeks in or adjacent to the City of Banyule and the potential for large flow with heavy rainfall, they cause relatively little flooding of buildings and private properties. Typically, land immediately adjacent to these waterways has remained undeveloped and reserved as recreational open space as a result of historical 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 Banyule municipality contains or is bounded by a large number of waterways ranging in size from the Yarra River to small unnamed creeks. The three largest waterways are: the Yarra River forming the southern boundary with the Cities of Manningham and Boroondara; Darebin Creek forming part of the western boundary with the Cities of Darebin and Yarra; and the Plenty River running north-south through the municipality.

The Yarra River begins its journey approximately 190km upstream in the Yarra Ranges to the east of Melbourne. It then runs through the Yarra Valley and Melbourne's eastern suburbs before bounding the Banyule municipality from Lower Plenty and continuing downstream to Port Phillip Bay.

The Plenty River catchment commences in the Mount Disappointment State Forest and incorporates the Yan Yean Reservoir upstream of Banyule. The catchment is 351km^2 in area rising an additional 48km^2 during times of high flow due to inter-catchment transfer from the Goulburn River. Banyule is located at the downstream end of the Plenty River catchment where it then connects to the Yarra River at Heidelberg.

Darebin Creek is approximately 50km in length and drains the greater Darebin Creek catchment, 129km^2 in area. The lower 10km of the creek bounds the City of Banyule to the west where upon it discharges to the Yarra River at Ivanhoe. Prior to European settlement, flow along Darebin Creek was believed to be only intermittent or seasonal. However, land clearing, urban development with impervious surfaces, and introduction of underground drainage are considered to now cause Darebin Creek to have a low flow or greater the year round.

Melbourne Water Drains

Melbourne Water has 27 main drains within Banyule (see table below) with an approximate length of 37.4km, with 24.3km as underground drains and 13.1km as minor waterways (i.e. small creeks and lined channels).

Melbourne Water Drains & Waterways	Suburb/s	Melbourne Water Drains & Waterways	Suburb/s
Banksia Street Main Drain	Eaglemont	Janefield Main Drain	Bundoora
Banyule Creek	Rosanna, Viewbank & Yallambie	Kempston Street Main Drain	Greensborough & Watsonia North
Banyule East Main Drain	Viewbank	Lillimur Avenue Main Drain	Heidelberg West
Beatrix Main Drain	Greensborough	Locksley Road Main Drain	Eaglemont, Ivanhoe & Ivanhoe East
Bolton Main Drain	Lower Plenty	Lower Plenty Main Drain	Lower Plenty
Bundoora Main Drain	Bundoora	Macleod High School Drain	Macleod
Carolyn Street Main Drain	Watsonia North	Mont Park Drain	Bundoora & Heidelberg West
Castleton Road Main Drain	Viewbank	Plenty River	Greensborough & Viewbank
Cleveland Avenue Main Drain	Lower Plenty	Salt Creek	Heidelberg, Macleod & Rosanna
Darebin Creek	Bellfield, Heidelberg West, Ivanhoe	Southern Road Main Drain	Heidelberg Heights & Heidelberg West
Diamond Creek Road Main Drain	Greensborough	St Helena East Main Drain	Eltham North, Greensborough & St Helena
Elmo Road Main Drain	Montmorency	St Helena West Drain	Briar Hill & Greensborough
Eltham Park Main Drain	Lower Plenty & Montmorency	Watsonia Main Drain	Greensborough, Macleod, Viewbank, Watsonia & Yallambie
Eltham West Main Drain	Greensborough	Yando Street Main Drain	Greensborough & Watsonia North
Heidelberg West Main Drain	Bellfield & Ivanhoe	Yarra River	Eaglemont, Heidelberg, Ivanhoe East, Ivanhoe, Lower Plenty & Viewbank
Irvine Road Main Drain	Ivanhoe & Ivanhoe East		

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

Historic Storms and Floods

Significant floods to have occurred within the City of Banyule are as follows in the table below. It is rare that a storm will affect all catchments in the municipality in the one event except in the most extreme situations. Results below highlighted in black indicate when either stream level rise was significant enough to cause riverine flooding or when rainfall was significant enough to cause flash flooding; while results in grey indicate either stream level rise or rainfall that was unlikely enough to contribute to flooding at or around the gauge location. These results have been included however to show the relationship between these catchments and others that were recorded to indicate flooding.

The most recent examples of severe localised flooding in the Banyule municipality include:

- Severe flooding within local catchments and waterways on 3 December 2003 (Melbourne Water, 2007); and
- Severe localised flooding after an intense storm event on Christmas Day 2011. Significant damage to some residential areas and Council assets including pre-schools, sports facilities, park land and trails.

Flood Event	Yarra River at Templestowe (229142A)	Yarra River at Heidelberg (229135A)		Plenty River at Greensborough (229615A)		Plenty River at Lower Plenty (229614A)		Darebin Creek at Ivanhoe (229403A)	
	River Level	Rainfall at Gauge	River Level	Rainfall at Gauge	River Level	Rainfall at Gauge	River Level	Rainfall at Gauge	Creek Level
Normal Water Level	0.75m	-	1.70m	-	0.11m	-	0.37m	-	0.21m
Minor Flood Class	3.5m		6.0m		-		5.0m		-
Moderate Flood Class	6.0m		8.3m		-		6.6m		-
Major Flood Class	7.2m		9.2m		-		7.2m		-
13th July 1891	-	-	11.69m	-	-	-	-	-	-
1st December 1934	**10.93m**	-	**13.13m**	-	-	-	6.27m	-	3.06m
13th July 1952	-	-	9.91m	-	-	-	5.18m	-	2.99m
9th November 1971	7.76m	-	9.43m	-	5.15m	-	5.62m	-	-
14th May 1974	7.41m	-	9.67m	-	**7.77m**	-	**7.24m**	-	2.84m
26th October 1975	4.97m	-	7.83m	-	-	-	-	-	-
16th October 1976	3.66m	-	6.23m	-	-	-	-	-	-
8th April 1977	-	-	7.51m	-	-	-	-	-	-
30th June 1977	-	-	7.51m	-	-	-	-	-	-
10th August 1978	3.53m	-	6.72m	-	-	-	2.55m	-	-

Flood Event	Yarra River at Templestowe (229142A)	Yarra River at Heidelberg (229135A)		Plenty River at Greensborough (229615A)		Plenty River at Lower Plenty (229614A)		Darebin Creek at Ivanhoe (229403A)	
	River Level	Rainfall at Gauge	River Level	Rainfall at Gauge	River Level	Rainfall at Gauge	River Level	Rainfall at Gauge	Creek Level
Normal Water Level	0.75m	-	1.70m	-	0.11m	-	0.37m	-	0.21m
Minor Flood Class	3.5m		6.0m		-		5.0m		-
Moderate Flood Class	6.0m		8.3m		-		6.6m		-
Major Flood Class	7.2m		9.2m		-		7.2m		-
20th November 1978	3.75m	-	7.19m	-	-	-	4.06m	-	-
19th September 1984	6.01m	-	7.93m	-	1.73m	71mm / 44hrs	2.34m	-	-
30th July 1987	4.39m	-	8.05m	-	5.40m	46mm / 43hrs	5.60m	-	-
11th June 1989	5.25m	-	-	-	4.84m	40mm / 30hrs	5.30m	-	-
19th September 1991	3.60m	-	7.45m	31mm / 37hrs	0.86m	29mm / 35hrs	1.44m	-	-
26th September 1992	3.77m	-	7.40m	21mm / 16hrs	2.54m	17mm / 22hrs	3.21m	-	-
11th October 1992	4.92m	-	8.00m	19mm / 6hrs	3.38m	15mm / 7hrs	3.99m	-	-
18th September 1993	3.43m	-	7.10m	-	2.78m	22mm / 27hrs	4.52m	-	-
19th April 1996	3.21m	-	6.87m	32mm / 41hrs	1.14m	34mm / 44hrs	1.76m	-	-
24th June 1996	3.54m	-	7.55m	53mm / 22hrs	-	51mm / 28hrs	4.35m	-	-
1st August 1996	4.81m	-	8.00m	31mm / 30hrs	2.30m	39mm / 43hrs	3.07m	-	-
6th October 1996	3.38m	-	7.04m	16mm / 14hrs	1.30m	16mm / 13hrs	2.06m	-	-
26th October 2000	2.98m	32mm / 31hrs	6.86m	21mm / 19hrs	3.34m	37mm / 24hrs	4.10m	-	1.32m
3rd December 2003	1.85m	100mm / 4hrs	6.09m	15mm / 3hrs	0.18m	86mm / 3hrs	2.55m	92mm / 4hrs	2.14m
13th November 2004	5.51m	34mm / 6hrs	8.38m	36mm / 6hrs	2.70m	35mm / 6hrs	3.03m	31mm / 6hrs	1.72m
3rd February 2005	6.37m	125mm / 27hrs	8.53m	127mm / 27hrs	4.44m	128mm / 27hrs	4.61m	139mm / 27hrs	2.59m
1st November 2010	4.01m	56mm / 21hrs	7.48m	72mm / 21hrs	2.43m	56mm / 20hrs	2.74m	59mm / 18hrs	1.41m
28th November 2010	2.74m	35mm / 35hrs	6.88m	43mm / 36hrs	4.33m	45mm / 41hrs	4.89m	34mm / 40hrs	1.13m
5th February 2011	5.53m	83mm / 15hrs	8.30m	125mm / 14hrs	3.82m	97mm / 15hrs	4.10m	77mm / 15hrs	2.19m
12th April 2011	2.97m	70mm / 9hrs	6.48m	67mm / 10hrs	1.09m	64mm / 9hrs	1.82m	58mm / 9hrs	1.58m
27th November 2011	3.78m	64mm / 23hrs	7.75m	59mm / 22hrs	3.60m	61mm / 23hrs	4.00m	56mm / 23hrs	1.36m
26th December 2011	4.11m	69mm / 5hrs	7.20m	90mm / 6hrs	2.45m	60mm / 5hrs	3.74m	52mm / 5hrs	2.71m
1st June 2013	2.97m	97mm / 15hrs	6.69m	93mm / 13hrs	1.81m	88mm / 12hrs	3.15m	93mm / 16hrs	**3.21m**

Flood Event	Yarra River at Templestowe (229142A)	Yarra River at Heidelberg (229135A)		Plenty River at Greensborough (229615A)		Plenty River at Lower Plenty (229614A)		Darebin Creek at Ivanhoe (229403A)	
	River Level	Rainfall at Gauge	River Level	Rainfall at Gauge	River Level	Rainfall at Gauge	River Level	Rainfall at Gauge	Creek Level
Normal Water Level	0.75m	-	1.70m	-	0.11m	-	0.37m	-	0.21m
Minor Flood Class	3.5m		6.0m		-		5.0m		-
Moderate Flood Class	6.0m		8.3m		-		6.6m		-
Major Flood Class	7.2m		9.2m		-		7.2m		-
29th December 2016	2.21m	46mm / 2 hrs	5.19m	61mm / 2 hrs	1.50m	71mm / 2 hrs	2.65m	40mm / 3 hrs	2.57m
1st December 2017	2.56m	17mm / 15 mins	5.87m	82mm / 48 hrs	0.92m	14mm / 15 mins	1.28m	17mm / 15 mins	1.36m

Table A2 – Selection of Historical Storm and Flood Events within the Yarra River, Plenty River and Darebin Creek catchments in Banyule.

Dam Spilling / Failure

Flooding resulting from failure of the following dams is likely to cause significant structural and community damage within the City of Banyule. See Dam Failure in Section 3 of this plan for more information. Note that if the storage capacity is reached and water flows over the spillway, this is not to be referred to as a flow release or a storage breach or failure.

Melbourne Water Dam	Location	Owner	Dam Capacity	Full Supply Level	Melway Reference
Maroondah Reservoir	Healesville	Melbourne Water	21,821 ML	139.46m AHD	270 J4
Sugarloaf Reservoir	Christmas Hills	Melbourne Water	93,411 ML	178.00m AHD	273 E6
Upper Yarra Reservoir	Reefton	Melbourne Water	200,051 ML	366.53m AHD	-
Yan Yean Reservoir	Yan Yean	Melbourne Water	31,280 ML	183.19m AHD	391 D1

Table A3 – Melbourne Water Reservoirs that pose a risk to the City of Banyule from Dam Failure

Service Reservoirs located within the Municipality are listed below.

Service Reservoir	Location	Owner	Material	Reservoir Capacity	Melway Reference
Ivanhoe	419 Upper Heidelberg Road, Ivanhoe	Yarra Valley Water	Concrete	Unknown	31 H4

Table A4 – Melbourne Water Service Reservoirs in the City of Banyule

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 (e.g. 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	Location To	Typical Travel Time	Flood Class Level	Comments
YARRA RIVER				
Warrandyte	Heidelberg	Between 4 and 12 hours	Minor Flood at Warrandyte	Inflows from Andersons Creek, Mullum Mullum Creek, Diamond Creek or Plenty River may impact on travel time.
Templestowe		Between 2 and 9 hours	Minor Flood at Templestowe	Inflows from Plenty River may impact on travel time
		Around 4 hours	Moderate Flood at Templestowe	
PLENTY RIVER				
Mernda	Greensborough	Between 4 and 5 hours	Minor Flood at Lower Plenty	
	Lower Plenty	Between 5 and 12 hours		
Greensborough		Between 2 and 9 hours		
DAREBIN CREEK				
Epping	Bundoora	Between 1 minute and 1 hour	No Flood Class	Bundoora may peak up to 5 hours before Epping depending on the storm location and conditions. If this occurs, a secondary smaller peak at Bundoora may occur up to 3 hours following Epping's peak.
	Ivanhoe	Between 1 and 5 hours		Ivanhoe may peak before Epping
Bundoora		Between 1 minute and 3 hours		Ivanhoe may peak before Bundoora

Table B1 – Typical Flood Travel Times between gauges on the Yarra and Plenty Rivers and on Darebin Creek

Historical Travel Times

Flood Event	Location From	Location To	Flood Peak Travel Time	Flood Class at
YARRA RIVER				**Templestowe**
9th November 1971	Warrandyte	Banksia Street, Heidelberg	1 hour	Major

Flood Event	Location From	Location To	Flood Peak Travel Time	Flood Class at
14th May 1974	Warrandyte	Banksia Street, Heidelberg	13 hours	Minor
26th October 1975	Warrandyte	Banksia Street, Heidelberg	26 hours	Minor
	Fitzsimons Lane, Templestowe		31 hours	
16th October 1976	Warrandyte	Banksia Street, Heidelberg	Heidelberg peaked 4 hours before Warrandyte	Minor
	Fitzsimons Lane, Templestowe		Heidelberg peaked 5 hours before Templestowe	
10th August 1978	Warrandyte	Banksia Street, Heidelberg	16 hours	Minor
	Fitzsimons Lane, Templestowe		15 hours	
20th November 1978	Warrandyte	Banksia Street, Heidelberg	14 hours	Minor
	Fitzsimons Lane, Templestowe		11 hours	
19th September 1984	Warrandyte	Banksia Street, Heidelberg	8 hours	Moderate
	Fitzsimons Lane, Templestowe		5 hours	
30th July 1987	Warrandyte	Banksia Street, Heidelberg	9 hours	Minor
	Fitzsimons Lane, Templestowe		5 hours	
19th September 1991	Warrandyte	Banksia Street, Heidelberg	22 hours	Minor
	Fitzsimons Lane, Templestowe		19 hours	
26th September 1992	Warrandyte	Banksia Street, Heidelberg	12 hours	Minor
	Fitzsimons Lane, Templestowe		6 hours	
11th October 1992	Warrandyte	Banksia Street, Heidelberg	10 hours	Minor
	Fitzsimons Lane, Templestowe		4 hours	
3rd February 2005	Warrandyte	Banksia Street, Heidelberg	Less than 1 hour	Moderate
	Fitzsimons Lane, Templestowe		Less than 1 hour	
1st November 2010	Warrandyte	Banksia Street, Heidelberg	No peak experienced at Heidelberg (steady falling levels from a previous event along a tributary)	Minor
	Fitzsimons Lane, Templestowe		No peak experienced at Heidelberg (steady falling levels from a previous event along a tributary)	
5th February 2011	Warrandyte	Banksia Street, Heidelberg	No peak experienced at Heidelberg (steady falling levels from a previous event along a tributary)	Minor
	Fitzsimons Lane, Templestowe		No peak experienced at Heidelberg (steady falling levels from a previous event along a tributary)	
27th November 2011	Warrandyte	Banksia Street, Heidelberg	11 hours	Minor
	Fitzsimons Lane, Templestowe		7 hours	
26th December 2011	Warrandyte	Banksia Street, Heidelberg	Heidelberg peaked 1 hour before Warrandyte	Minor
	Fitzsimons Lane, Templestowe		4 hours	
PLENTY RIVER				**Lower Plenty**
30th July 1987	Mernda	Lower Plenty	5 hours	Minor

Flood Event	Location From	Location To	Flood Peak Travel Time	Flood Class at
	Greensborough		2 hours	
11th June 1989	Mernda	Lower Plenty	6 hours	Minor
	Greensborough		2 hours	
26th September 1992	Mernda	Lower Plenty	12 hours	Below Minor
	Greensborough		9 hours	
5th October 1992	Mernda	Lower Plenty	8 hours	Below Minor
	Greensborough		4 hours	
18th September 1993	Mernda	Lower Plenty	7 hours	Below Minor
	Greensborough		5 hours	
1st August 1996	Mernda	Lower Plenty	6 hours	Below Minor
	Greensborough		4 hours	
26th October 2000	Mernda	Lower Plenty	6 hours	Below Minor
	Greensborough		2 hours	
25th April 2001	Mernda	Lower Plenty	7 hours	Below Minor
	Greensborough		2 hours	
13th November 2004	Mernda	Lower Plenty	6 hours	Below Minor
	Greensborough		5 hours	
3rd February 2005	Mernda	Lower Plenty	6 hours	Below Minor
	Greensborough		2 hours	
28th November 2010	Mernda	Lower Plenty	7 hours	Below Minor
	Greensborough		3 hours	
5th February 2011	Mernda	Lower Plenty	6 hours	Below Minor
	Greensborough		2 hours	
27th November 2011	Mernda	Lower Plenty	7 hours	Below Minor
	Greensborough		3 hours	
26th December 2011	Mernda	Lower Plenty	Less than 1 hour	Below Minor
	Greensborough		1 hour	
1st June 2013	Mernda	Lower Plenty	Less than 1 hour	Below Minor
	Greensborough		Less than 1 hour	
DAREBIN CREEK				**N/A**
26th October 2000	Epping	Bell Street, Ivanhoe	Ivanhoe peaked 1 hour before Epping	-
	Bundoora		Ivanhoe peaked 1 hour before Epping	
25th April 2001	Epping	Bell Street, Ivanhoe	2 hours	-
	Bundoora		2 hours	
3rd December 2003	Epping	Bell Street, Ivanhoe	2 hours	-
	Bundoora		Less than 1 hour	
13th November 2004	Epping	Bell Street, Ivanhoe	2 hours	-
	Bundoora		1 hour	
3rd February 2005	Epping	Bell Street, Ivanhoe	Ivanhoe peaked 5 hours before Epping	-
	Bundoora		Less than 1 hour	
1st November 2010	Epping	Bell Street, Ivanhoe	5 hours	-
	Bundoora		2 hours	
5th February 2011	Epping	Bell Street, Ivanhoe	1 hour	-
	Bundoora		1 hour	
12th April 2011	Epping	Bell Street, Ivanhoe	Ivanhoe peaked 1 hour before Epping	-

Flood Event	Location From	Location To	Flood Peak Travel Time	Flood Class at
	Bundoora		Ivanhoe peaked 2 hours before Epping	
26th December 2011	Epping	Bell Street, Ivanhoe	3 hours	-
	Bundoora		3 hours	
1st June 2013	Epping	Bell Street, Ivanhoe	3 hours	-
	Bundoora		2 hours	

Table B2 – Historical Flood Travel Times between gauges on the Yarra and Plenty Rivers and on Darebin Creek

APPENDIX C1 – YARRA RIVER FLOOD EMERGENCY PLAN

Overview of Flooding Consequences

The Yarra River and its adjoining suburbs of Lower Plenty, Viewbank, Heidelberg, Eaglemont, Ivanhoe East & Ivanhoe are located approximately 8km North East of Melbourne in a predominantly established residential area. The Yarra River being the prominent water course in the area flows from the east through the Municipalities of Yarra Ranges, Manningham & Nillumbik.

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 the Yarra River in Banyule					
Property					
Properties	**76**				
Residential	63				
Commercial	7				
Industrial	0				
Public Land	6				
Rural	0				
Community Infrastructure					
Essential Infrastructure					
Major Roads	1	Banksia Street			
Bus Routes	1	903			
Sewerage Facilities	3	1 Pumping Station and 2 Emergency Relief Points			
Drainage Facilities	4	Retarding Basins			
Tourism / Recreation					
Sports Facilities	3	Eaglemont Tennis Club; Ivanhoe Public Golf Course; & Rosanna Golf Club			
Recreation Facilities	4	Banyule Flats Reserve; Warringal Parklands; Yarra Flats Park; Yarra Trail			
Government Boundaries					
Local Gov't Areas	1	Banyule	CMA	1	Port Phillip & Westernport
Adjacent LGAs	4	Nillumbik, Manningham, Boroondara & Yarra	CFA District	1	District 14
SES Resp' Boundary	2	Northcote and Nillumbik	FRV District	1	Northern

Table C1.1 – Consequence Summary of 1% AEP flood along the Yarra River in Banyule

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 the Locksley Rd and Irvine Rd Drains					
Property					
Properties	**214**				
Residential	169				
Commercial	49				
Industrial	0				
Public Land	0				
Rural	0				
Community Infrastructure					
Child Care / Kindergartens	1	Goodstart Early Learning Ivanhoe			
Essential Infrastructure					
Tourism / Recreation					
Government Boundaries					
Local Gov't Areas	1	Banyule	CMA	1	Port Phillip & Westernport
Adjacent LGAs	0		CFA District	0	
SES Resp' Boundary	1	Northcote	FRV District	1	Northern

Table C1.2 – Consequence Summary of 1% AEP flood along the Locksley Road and Irvine Road Drains

Gauges and Warnings

Warnings are available for flooding expected along the Yarra River in the City of Banyule. Flood class levels for the Templestowe and Heidelberg gauges are detailed in table C1.3 and are used in the issuing of a flood warning for the Middle and Lower Yarra River. Other level / flood gauges within the Yarra River catchment are also contained within table C1.4.

Gauge	Flood Class Level		
	Minor	Moderate	Major
Yarra River at Templestowe	3.5m	6.0m	8.0m
Yarra River at Heidelberg	6.0m	8.3m	9.2m

Table C1.3 – Gauges with established Flood Class Levels for the Yarra River around the City of Banyule

At these sites on the Yarra River, 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) and the VicEmergency website https:/emergency.vic.gov.au/. While the City of Banyule monitors these warnings in times of high rainfall, there are no specific guidelines to advise how these situations should be responded to.

The Gauges below 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.

Gauge	Station No.	Location	Stream Level & Flow Gauge	Rain Gauge	Melway Reference
Yarra River at Fitzsimons La, Templestowe	229142A	Northern bank of River, 80m east of Fitzsimons Lane, Eltham	✓		21 G12
Yarra River at Warrandyte	229200B	South bank of river at end of Police Street, Warrandyte	✓	✓	23 D12
Yarra River at Banksia St, Heidelberg	229135A	East bank of River on Northern side of Banksia Street Bridge, Bulleen	✓	✓	32 C5
Viewbank AWS	86068	Southern side of Country Lane, Viewbank		✓	20 H12

Table C1.4 – Gauges along the Yarra River near the City of Banyule

Area Map of Flood Risk along the Yarra River

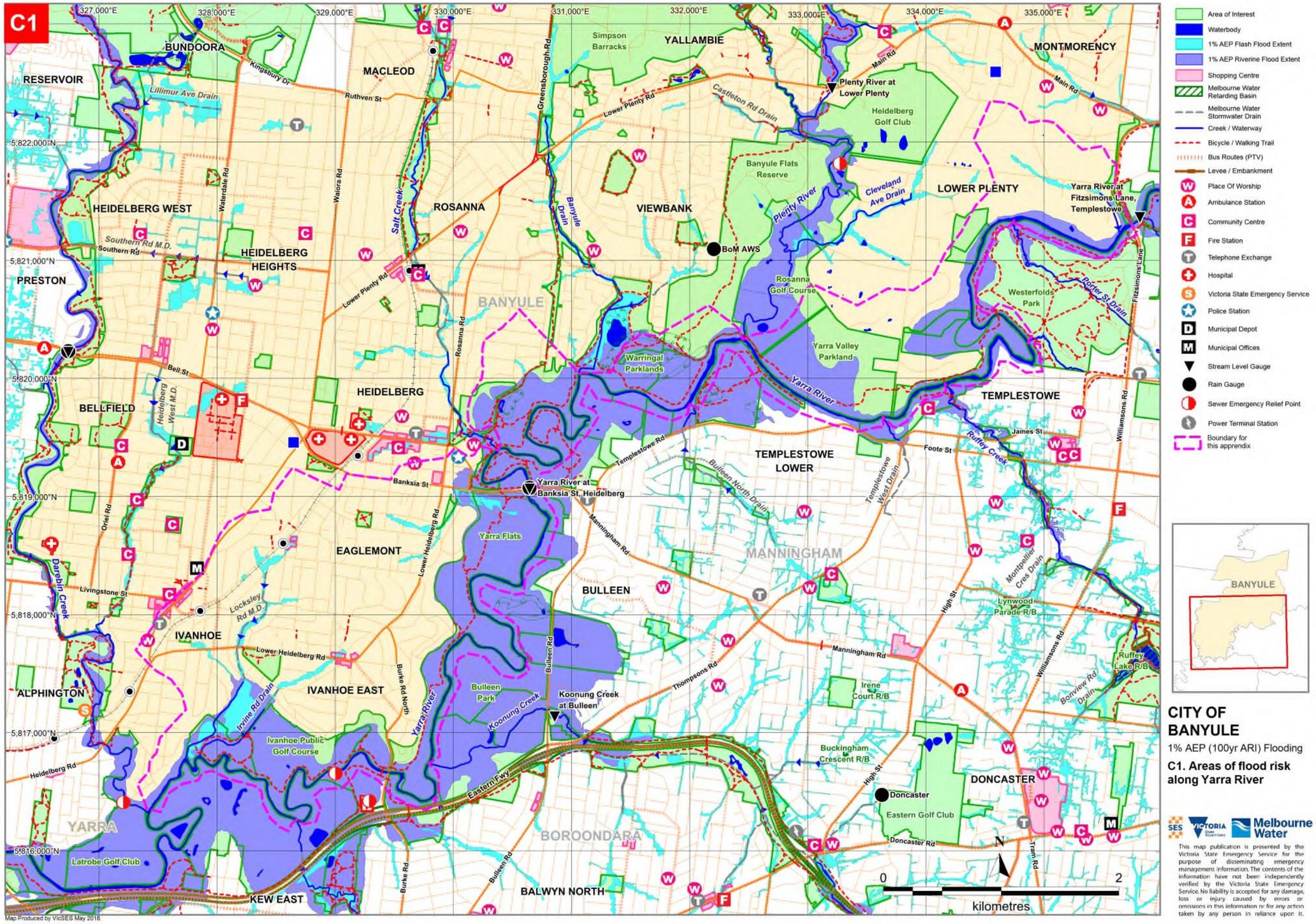


Figure C1 – Areas of flood risk around the Yarra River in the City of Banyule and area covered by this Appendices

Properties at Flood Risk

Properties listed in the table below are at risk from flooding along the Yarra River in Banyule. As more intelligence becomes available, this list may change. This table has been populated based on modelling work as part of the Yarra River (Melbourne Water and S.P. Goh & Associates, 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 Yarra River in Banyule during a 1% AEP event

Residential | **Commercial** | **Industrial** | **Rural** | **Public Use**

Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
4	Banksia Street	Heidelberg	Yarra River	Riverine
16	Banksia Street	Heidelberg	Yarra River	Riverine
1	Beverley Road	Heidelberg	Yarra River	Riverine
31	Beverley Road	Heidelberg	Yarra River	Riverine
35	Beverley Road	Heidelberg	Yarra River	Riverine
50	Beverley Road	Heidelberg	Yarra River	Riverine
1	Burgundy Street	Heidelberg	Yarra River	Riverine
58	Cleveland Avenue	Lower Plenty	Yarra River	Riverine
2	Dora Street	Heidelberg	Yarra River	Riverine
1	Flora Grove	Ivanhoe East	Yarra River	Riverine
3	Flora Grove	Ivanhoe East	Yarra River	Riverine
5	Flora Grove	Ivanhoe East	Yarra River	Riverine
7	Flora Grove	Ivanhoe East	Yarra River	Riverine
9	Flora Grove	Ivanhoe East	Yarra River	Riverine
11	Flora Grove	Ivanhoe East	Yarra River	Riverine
15	Flora Grove	Ivanhoe East	Yarra River	Riverine
17	Flora Grove	Ivanhoe East	Yarra River	Riverine
19	Flora Grove	Ivanhoe East	Yarra River	Riverine
21	Flora Grove	Ivanhoe East	Yarra River	Riverine
23	Flora Grove	Ivanhoe East	Yarra River	Riverine
25	Flora Grove	Ivanhoe East	Yarra River	Riverine
27A	Flora Grove	Ivanhoe East	Yarra River	Riverine
27	Flora Grove	Ivanhoe East	Yarra River	Riverine
29	Flora Grove	Ivanhoe East	Yarra River	Riverine
2	Gilbert Road	Ivanhoe	Yarra River	Riverine
63	Glenard Drive	Eaglemont	Yarra River	Riverine
65	Glenard Drive	Eaglemont	Yarra River	Riverine
67	Glenard Drive	Eaglemont	Yarra River	Riverine
69	Glenard Drive	Eaglemont	Yarra River	Riverine
70	Glenard Drive	Eaglemont	Yarra River	Riverine
72	Glenard Drive	Eaglemont	Yarra River	Riverine
73	Glenard Drive	Eaglemont	Yarra River	Riverine
74	Glenard Drive	Eaglemont	Yarra River	Riverine
75	Glenard Drive	Eaglemont	Yarra River	Riverine
76	Glenard Drive	Eaglemont	Yarra River	Riverine
14	Hardy Terrace	Ivanhoe East	Yarra River	Riverine

Properties at risk from Flooding along Yarra River in Banyule 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	Hardy Terrace	Ivanhoe East	Yarra River	Riverine
48	Hardy Terrace	Ivanhoe East	Yarra River	Riverine
12	Irvine Road	Ivanhoe East	Yarra River	Riverine
14	Irvine Road	Ivanhoe East	Yarra River	Riverine
16	Irvine Road	Ivanhoe East	Yarra River	Riverine
24	Irvine Road	Ivanhoe	Yarra River	Riverine
28	Irvine Road	Ivanhoe	Yarra River	Riverine
2	Montpelier Drive	Lower Plenty	Yarra River	Riverine
4	Montpelier Drive	Lower Plenty	Yarra River	Riverine
6	Montpelier Drive	Lower Plenty	Yarra River	Riverine
8	Montpelier Drive	Lower Plenty	Yarra River	Riverine
10	Montpelier Drive	Lower Plenty	Yarra River	Riverine
12	Montpelier Drive	Lower Plenty	Yarra River	Riverine
1	Nyorie Court	Ivanhoe	Yarra River	Riverine
6	Nyorie Court	Ivanhoe	Yarra River	Riverine
9	Nyorie Court	Ivanhoe	Yarra River	Riverine
10	Redesdale Road	Ivanhoe	Yarra River	Riverine
9	Riverside Road	Ivanhoe	Yarra River	Riverine
21	Riverside Road	Ivanhoe	Yarra River	Riverine
25	Riverside Road	Ivanhoe	Yarra River	Riverine
48	The Boulevard	Ivanhoe	Yarra River	Riverine
68	The Boulevard	Ivanhoe	Yarra River	Riverine
70	The Boulevard	Ivanhoe	Yarra River	Riverine
131	The Boulevard	Ivanhoe	Yarra River	Riverine
133	The Boulevard	Ivanhoe	Yarra River	Riverine
141	The Boulevard	Ivanhoe East	Yarra River	Riverine
540	The Boulevard	Ivanhoe East	Yarra River	Riverine
661	The Boulevard	Eaglemont	Yarra River	Riverine
663	The Boulevard	Eaglemont	Yarra River	Riverine
669	The Boulevard	Eaglemont	Yarra River	Riverine
677	The Boulevard	Eaglemont	Yarra River	Riverine
1	Vasey Street	Ivanhoe	Yarra River	Riverine
5/2	Vine Street	Heidelberg	Yarra River	Riverine
13	Vine Street	Heidelberg	Yarra River	Riverine
15	Vine Street	Heidelberg	Yarra River	Riverine
1C	Waterdale Road	Ivanhoe	Yarra River	Riverine
4	Yarra Street	Heidelberg	Yarra River	Riverine
10	Yarra Street	Heidelberg	Yarra River	Riverine
11	Yarra Street	Heidelberg	Yarra River	Riverine
19A	Yarra Street	Heidelberg	Yarra River	Riverine

Total
76

Table C1.5 – Properties at risk of flooding along the Yarra River in the City of Banyule

Properties listed in the table below are at risk from flooding along the Locksley Road and Irvine Road Drains. As more intelligence becomes available, this list may change. This table has been populated based on modelling work as part of the Locksley Road Main Drain (Melbourne Water, October 2005),

the Irvine Road Drain (CMPS&F, February 1998) and the Banyule City Local Drainage (Engeny, February 2015) flood mapping and risk assessment programs.

Properties at risk from Flooding along Yarra River's Stormwater Tributaries during a 1% AEP event

Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
18D	Ashby Grove	Eaglemont	Locksley Road Main Drain	Flash
18C	Ashby Grove	Eaglemont	Locksley Road Main Drain	Flash
18B	Ashby Grove	Eaglemont	Locksley Road Main Drain	Flash
18A	Ashby Grove	Eaglemont	Locksley Road Main Drain	Flash
20	Ashby Grove	Eaglemont	Locksley Road Main Drain	Flash
3	Beauview Parade	Ivanhoe East	Irvine Road Drain	Flash
5	Beauview Parade	Ivanhoe East	Irvine Road Drain	Flash
1	Cedric Street	Ivanhoe East	Irvine Road Drain	Flash
1B	Cedric Street	Ivanhoe East	Irvine Road Drain	Flash
1A	Cedric Street	Ivanhoe East	Irvine Road Drain	Flash
2	Cedric Street	Ivanhoe East	Irvine Road Drain	Flash
3	Cedric Street	Ivanhoe East	Irvine Road Drain	Flash
5	Cedric Street	Ivanhoe East	Irvine Road Drain	Flash
7	Cedric Street	Ivanhoe East	Irvine Road Drain	Flash
4/15	Cedric Street	Ivanhoe East	Irvine Road Drain	Flash
18	Clarence Street	Ivanhoe	Locksley Road Main Drain	Flash
11	Hopetoun Grove	Eaglemont	Locksley Road Main Drain	Flash
1	Linton Street	Ivanhoe	Locksley Road Main Drain	Flash
2	Linton Street	Ivanhoe	Locksley Road Main Drain	Flash
4	Linton Street	Ivanhoe	Locksley Road Main Drain	Flash
5/44	Locksley Road	Ivanhoe	Locksley Road Main Drain	Flash
6/44	Locksley Road	Ivanhoe	Locksley Road Main Drain	Flash
7/44	Locksley Road	Ivanhoe	Locksley Road Main Drain	Flash
8/46	Locksley Road	Ivanhoe	Locksley Road Main Drain	Flash
6/48	Locksley Road	Ivanhoe	Locksley Road Main Drain	Flash
7/48	Locksley Road	Ivanhoe	Locksley Road Main Drain	Flash
6/52	Locksley Road	Ivanhoe	Locksley Road Main Drain	Flash
129A	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
129	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
1/131	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
2/131	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
3/131	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
4/131	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
1/135	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
2/135	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
3/135	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
4/135	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
5/135	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
6/135	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
7/135	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
8/135	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
1/139	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
2/139	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
3/139	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash

Properties at risk from Flooding along Yarra River's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
4/139	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
5/139	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
6/139	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
7/139	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
8/139	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
1/143	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
2/143	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
3/143	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
4/143	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
5/143	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
6/143	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
7/143	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
8/143	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
9/143	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
10/143	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
11/143	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
12/143	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
13/143	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
14/143	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
1/147	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
2/147	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
3/147	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
4/147	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
5/147	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
151	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
153	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
1/155	Locksley Road	Eaglemont	Locksley Road Main Drain	Flash
41	Lower Heidelberg Road	Ivanhoe	Locksley Road Main Drain	Flash
43	Lower Heidelberg Road	Ivanhoe	Locksley Road Main Drain	Flash
45	Lower Heidelberg Road	Ivanhoe	Locksley Road Main Drain	Flash
70	Lower Heidelberg Road	Ivanhoe	Locksley Road Main Drain	Flash
72	Lower Heidelberg Road	Ivanhoe	Locksley Road Main Drain	Flash
74	Lower Heidelberg Road	Ivanhoe	Locksley Road Main Drain	Flash
1/117	Lower Heidelberg Road	Ivanhoe	Locksley Road Main Drain	Flash
2/117	Lower Heidelberg Road	Ivanhoe	Locksley Road Main Drain	Flash
3/117	Lower Heidelberg Road	Ivanhoe	Locksley Road Main Drain	Flash
1/208	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
2/208	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
3/208	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
4/208	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
5/208	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
6/208	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
1/210	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
2/210	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
3/210	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
4/210	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash

Properties at risk from Flooding along Yarra River's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
5/210	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
216	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
220	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
223	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
1/223	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
225	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
1/225	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
227	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
229	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
1/229	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
2/229	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
231	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
233	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
235A	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
237	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
1/239	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
2/239	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
241	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
243	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
2/243	Lower Heidelberg Road	Ivanhoe East	Irvine Road Drain	Flash
92	Maltravers Road	Eaglemont	Locksley Road Main Drain	Flash
1/94	Maltravers Road	Eaglemont	Locksley Road Main Drain	Flash
2/94	Maltravers Road	Eaglemont	Locksley Road Main Drain	Flash
3/94	Maltravers Road	Eaglemont	Locksley Road Main Drain	Flash
4/94	Maltravers Road	Eaglemont	Locksley Road Main Drain	Flash
5/94	Maltravers Road	Eaglemont	Locksley Road Main Drain	Flash
6/94	Maltravers Road	Eaglemont	Locksley Road Main Drain	Flash
7/94	Maltravers Road	Eaglemont	Locksley Road Main Drain	Flash
8/94	Maltravers Road	Eaglemont	Locksley Road Main Drain	Flash
9/94	Maltravers Road	Eaglemont	Locksley Road Main Drain	Flash
10/94	Maltravers Road	Eaglemont	Locksley Road Main Drain	Flash
96	Maltravers Road	Eaglemont	Locksley Road Main Drain	Flash
98	Maltravers Road	Eaglemont	Locksley Road Main Drain	Flash
100	Maltravers Road	Eaglemont	Locksley Road Main Drain	Flash
109-111	Maltravers Road	Ivanhoe East	Locksley Road Main Drain	Flash
115	Maltravers Road	Ivanhoe	Locksley Road Main Drain	Flash
49	Marshall Street	Ivanhoe	Locksley Road Main Drain	Flash
1	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
1/3	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
2/3	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
3/3	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
4/3	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
5/3	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
6/3	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
7/3	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
8/3	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash

Properties at risk from Flooding along Yarra River's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use
Street No. at Risk	**Street**	**Suburb**	**Along Melbourne Water Watercourse**	**Flood Risk Type**
9/3	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
10/3	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
1/5	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
2/5	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
3/5	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
4/5	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
5/5	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
7	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
1/9	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
2/9	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
3/9	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
4/9	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
5/9	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
6/9	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
7/9	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
8/9	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
9/9	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
10/9	Rotherwood Road	Ivanhoe East	Locksley Road Main Drain	Flash
25	Sherwood Road	Ivanhoe	Locksley Road Main Drain	Flash
1/27	Sherwood Road	Ivanhoe	Locksley Road Main Drain	Flash
2/27	Sherwood Road	Ivanhoe	Locksley Road Main Drain	Flash
3/27	Sherwood Road	Ivanhoe	Locksley Road Main Drain	Flash
4/27	Sherwood Road	Ivanhoe	Locksley Road Main Drain	Flash
69	Silverdale Road	Eaglemont	Locksley Road Main Drain	Flash
71	Silverdale Road	Eaglemont	Locksley Road Main Drain	Flash
73	Silverdale Road	Eaglemont	Locksley Road Main Drain	Flash
74	Silverdale Road	Eaglemont	Locksley Road Main Drain	Flash
74A	Silverdale Road	Eaglemont	Locksley Road Main Drain	Flash
75	Silverdale Road	Eaglemont	Locksley Road Main Drain	Flash
76	Silverdale Road	Eaglemont	Locksley Road Main Drain	Flash
77	Silverdale Road	Eaglemont	Locksley Road Main Drain	Flash
78	Silverdale Road	Eaglemont	Locksley Road Main Drain	Flash
79	Silverdale Road	Eaglemont	Locksley Road Main Drain	Flash
80	Silverdale Road	Eaglemont	Locksley Road Main Drain	Flash
80A	Silverdale Road	Eaglemont	Locksley Road Main Drain	Flash
81	Silverdale Road	Eaglemont	Locksley Road Main Drain	Flash
82	Silverdale Road	Eaglemont	Locksley Road Main Drain	Flash
177	The Boulevard	Ivanhoe East	Irvine Road Drain	Flash
30	Thoresby Grove	Ivanhoe	Locksley Road Main Drain	Flash
32	Thoresby Grove	Ivanhoe	Locksley Road Main Drain	Flash
2	Townsend Street	Ivanhoe East	Locksley Road Main Drain	Flash
4	Townsend Street	Ivanhoe East	Locksley Road Main Drain	Flash
8	Townsend Street	Ivanhoe East	Locksley Road Main Drain	Flash
10	Townsend Street	Ivanhoe East	Locksley Road Main Drain	Flash
12	Townsend Street	Ivanhoe East	Locksley Road Main Drain	Flash
14	Townsend Street	Ivanhoe East	Locksley Road Main Drain	Flash

Properties at risk from Flooding along Yarra River's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
16	Townsend Street	Ivanhoe East	Locksley Road Main Drain	Flash
18	Townsend Street	Ivanhoe East	Locksley Road Main Drain	Flash
20	Townsend Street	Ivanhoe East	Locksley Road Main Drain	Flash
24	Townsend Street	Ivanhoe East	Locksley Road Main Drain	Flash
26	Townsend Street	Ivanhoe East	Locksley Road Main Drain	Flash
27	Townsend Street	Ivanhoe	Locksley Road Main Drain	Flash
29	Townsend Street	Ivanhoe	Locksley Road Main Drain	Flash
31	Townsend Street	Ivanhoe	Locksley Road Main Drain	Flash
3	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
7	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
9	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
11	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
13	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
5/23	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
6/23	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
33	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
39	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
43	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
3/45	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
4/45	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
5/45	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
2/47	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
3/47	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
1/49	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
2/49	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
51	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
2/53	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
55	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
57	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
2/61	Wilfred Road	Ivanhoe East	Irvine Road Drain	Flash
4	Young Street	Ivanhoe	Locksley Road Main Drain	Flash
6	Young Street	Ivanhoe	Locksley Road Main Drain	Flash

Total
214

Table C1.6 – Properties at risk of flooding along the Locksley Road and Irvine Road Drains in the City of Banyule

Isolation

No major isolation risks exist for Lower Plenty, Viewbank, Heidelberg, Eaglemont, Ivanhoe East and Ivanhoe close to the Yarra River 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 Banyule is available via the website at:
https://static.ptv.vic.gov.au/siteassets/Maps/Localities/PDFs/1_Banyule_LAM_2016.pdf

Apart from the roads outlined below, all other essential infrastructure and services areas along the Yarra in Lower Plenty, Viewbank, Heidelberg, Eaglemont, Ivanhoe East and Ivanhoe 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 Lower Plenty, Viewbank, Heidelberg, Eaglemont, Ivanhoe East and Ivanhoe. Check the VicTraffic website for more details:
http://alerts.vicroads.vic.gov.au/

Department of Transport Roads flooded in a 1% AEP (100yr ARI) event
• Banksia Street, Heidelberg between Lower Heidelberg Road and Manningham Road West

Table C1.7 – Department of Transport Possible Road Closures during a flooding event

Banyule City Council Roads flooded in a 1% AEP (100yr ARI) event	
EAGLEMONT	Vine Street
Glenard Drive	Yarra Street
The Boulevard	**IVANHOE**
HEIDELBERG	Gilbert Road
Beverley Road	Irvine Road
Burgundy Street	The Boulevard
Dora Street	**LOWER PLENTY**
The Conduit	Yarra Hill Close

Table C1.8 – Banyule City Council Possible Road Closures during a flooding event

Flood Mitigation

Retarding Basins

City of Banyule Retarding Basin	Location	Type	Melway Reference
Berverley Road Wetland	2 Beverley Road, Heidelberg	Stormwater Treatment, Wetland	32 C3
Banyule Flats Reserve North East Swamp Inlet	136 Banyule Road, Viewbank	Silt Pond Catchment	32 E1
Reedy Billabong Inlet	78 The Boulevard, Ivanhoe	Silt Pond Catchment	31 F10
Baileys Billabong Inlet	78 The Boulevard, Ivanhoe	Silt Pond Catchment	31 F10

Table C1.9 – Banyule City Council Retarding Basins near the Yarra River

No formal Pumping Stations or Levees exist around the Yarra River in the City of Banyule.

Sewerage Infrastructure

Sewerage Infrastructure of note during a severe flood event located around the Yarra River is contained within the following table. A number of properties around Lower Plenty & Viewbank contain septic tanks (are unsewered). Consider this when conducting a risk assessment in the area. These properties are shown on **Map C** in **Appendix F.**

Sewer Pumping Stations

Sewerage Pumping Station	Bank / Side of Waterway	Operator	Location	Melway Reference
Boulevard Park	West	Yarra Valley Water	Yarra Flats, Eaglemont	32 C6

Table C1.10 – Sewer Pumping Stations along the Yarra River in the City of Banyule

Sewer Emergency Relief Points

On Drain / Waterway	Bank / Side of Waterway	Location	Melway Reference
Yarra River	Southern	80m west of the Yarra Trail, 450m west of Burke Road, Kew East	31 J11
Yarra River	Southern	Along the Yarra Trail, just west of the Pedestrian Bridge, 120m west of Burke Road, Kew East	31 K11

Table C1.11 – Sewer Emergency Relief Points along the Yarra River in the City of Banyule

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 Management Plan. During significant events, VICSES will conduct incident management using multi- agency resources.

Flood Impacts and Operational Considerations (Intelligence Cards)

The tables on the following pages provide a breakdown of the possible consequences of flooding along the Yarra River and its stormwater tributaries at various gauge heights or rain totals within the City of Banyule. 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:

- Yarra River at Templestowe
- Yarra River at Heidelberg
- Yarra River Stormwater Tributaries

FLOOD INTELLIGENCE CARD – TEMPLESTOWE GAUGE, YARRA RIVER

Version 4 – June 2020

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. ***Scan the QR code for the current levels for this gauge.***

LOCATION:	**Northern bank of River, 80m east of Fitzsimons Lane, Eltham**
WEBSITE:	https://www.melbournewater.com.au/water/rainfall-and-river-levels#/reader/229142A
STREAM:	**Yarra River**
GAUGE NUMBER:	**229142A**
GAUGE ZERO:	**13.070 m AHD**
GAUGE TYPE:	**Stream Level**

MELWAY REFERENCE:	**21 G12**
MINOR:	**3.5m**
MODERATE:	**6.0m**
MAJOR:	**8.0m**
LEVEE HEIGHT:	**N/A**
HIGHEST RECORDED FLOOD:	**10.93m (1st December 1934)**

River Height	Flood Class or Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
2.55m		• Warringal Parklands downstream (Melway 32 C4) reaches Bank Full Level	
3.5m	**MINOR FLOOD LEVEL**	**Community Infrastructure Flooded** • Main Yarra Trail flooded at various locations	
6.0m	**MODERATE FLOOD LEVEL**	**Community Infrastructure Flooded** • Main Yarra Trail continues flooding at various locations	
8.0m	**MAJOR FLOOD LEVEL**	**Community Infrastructure Flooded** • Main Yarra Trail continues flooding at various locations	
10.28m	1% AEP (100yr ARI) Flood Level (Major)	• Note: It is not known at what level property and some infrastructure contained below starts being flooded **Properties at Flood Risk** **7 Properties in Total** • 58 Cleveland Avenue, Lower Plenty • 2, 4, 6, 8, 10 & 12 Montpelier Drive, Lower Plenty **Community Infrastructure Flooded** • Main Yarra Trail continues flooding at various locations • Main Yarra Trail footbridges at Westerfolds Park, Odyssey House & Plenty River flooded • Rosanna Golf Club, Cleveland Avenue, Lower Plenty	

River Height	Flood Class or Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		• Banyule Flats Reserve, Somerset Drive, Viewbank **Water Over Road** • Yarra Hill Close, Lower Plenty	

Table C1.12 – Breakdown of likely consequences at various Templestowe gauge level heights along the Yarra River within Banyule with operational considerations

FLOOD INTELLIGENCE CARD – HEIDELBERG GAUGE, YARRA RIVER

Version 4 – June 2020

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. ***Scan the QR code for the current levels for this gauge.***

LOCATION:	**East bank of River on Northern side of Banksia Street Bridge, Bulleen**
WEBSITE:	https://www.melbournewater.com.au/water/rainfall-and-river-levels#/reader/229135A
STREAM:	**Yarra River**
GAUGE NUMBER:	**229135A**
GAUGE ZERO:	**5.770m AHD**
GAUGE TYPE:	**Stream Level & Rain**

MELWAY REFERENCE:	**32 C5**
MINOR:	**6.0m**
MODERATE:	**8.3m**
MAJOR:	**9.2m**
LEVEE HEIGHT:	**N/A**
HIGHEST RECORDED FLOOD:	**13.13m (1st December 1934)**

River Height	Flood Class or Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
6.0m	**MINOR FLOOD LEVEL**	**Community Infrastructure Flooded** • Main Yarra Trail flooded at various locations	
8.3m	**MODERATE FLOOD LEVEL**		
8.53m	3rd February 2005 Flood Level Peak		
9.2m	**MAJOR FLOOD LEVEL**		
12.58m	1% AEP (100yr ARI) Flood Level (Major)	**Properties at Flood Risk** **69 Properties in Total** • 4 & 16 Banksia Street, Heidelberg • 1, 31, 35 & 50 Beverley Road, Heidelberg • 1 Burgundy Street, Heidelberg • 2 Dora Street, Heidelberg • 1, 3, 5, 7, 9, 11, 15, 17, 19, 21, 23, 25, 27, 27A & 29 Flora Grove, Ivanhoe East • 2 Gilbert Road, Ivanhoe • 63, 65, 67, 69, 70, 72, 73, 74, 75 & 76 Glenard Drive, Eaglemont • 14, 46 & 48 Hardy Terrace, Ivanhoe East	VICSES State and Region to provide warnings to the community and other agencies. VICSES will provide warnings using OSOM and SMSER as required based on the predications provided by BoM regarding flood levels and the risk of Flash Flooding. The North West Metro Regional Duty Officer in conjunction with the Regional Agency Commander will maintain operational awareness and form an appropriate response arrangement to suit the level of incident.

River Height	Flood Class or Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		• 12, 14 & 16 Irvine Road, Ivanhoe East • 24 & 28 Irvine Road, Ivanhoe • 1, 6 & 9 Nyorie Court, Ivanhoe • 10 Redesdale Road, Ivanhoe • 9, 21 & 25 Riverside Road, Ivanhoe • 48, 68, 70, 131 & 133 The Boulevard, Ivanhoe • 141 & 540 The Boulevard, Ivanhoe East • 661, 663, 669 & 677 The Boulevard, Eaglemont • 1 Vasey Street, Ivanhoe • 5/2, 13 & 15 Vine Street, Heidelberg • 1C Waterdale Road, Ivanhoe • 4, 10, 11 & 19A Yarra Street, Heidelberg **Community Infrastructure Flooded** • Main Yarra Trail continues flooding at various locations • Rosanna Golf Club, Cleveland Avenue, Lower Plenty • Banyule Flats Reserve, Somerset Drive, Viewbank • Merv Anderson Pavilion in the Warringal Parklands, Beverley Road, Heidelberg flooded • Yarra Flats Park, The Boulevard, Eaglemont • Pedestrian Bridge across River at Burke Road, Ivanhoe East Flooded • Eaglemont Tennis Club, The Boulevard, Ivanhoe • Ivanhoe Public Golf Course, Irvine Road, Ivanhoe **Essential Infrastructure Impacted** • Bus Route 903 likely impacted if flooding occurs on Banksia Street, Heidelberg **Water Over Road** • Beverley Road, Heidelberg • Burgundy Street, Heidelberg • Vine Street, Heidelberg • Dora Street, Heidelberg • Yarra Street, Heidelberg near Dora Street • The Conduit, Heidelberg • Banksia Street, Heidelberg between Lower Heidelberg Road and Manningham Road West • The Boulevard, Eaglemont, Ivanhoe & Ivanhoe East • Glenard Drive, Eaglemont • Irvine Road, Ivanhoe • Gilbert Road, Ivanhoe	SES to respond to RFA's on a case by case basis Council to setup road closure signage as required

Table C1.13 – Breakdown of likely consequences at various Heidelberg gauge level heights along the Yarra River in City of Banyule with operational considerations

FLOOD INTELLIGENCE CARD – YARRA RIVER STORMWATER TRIBUTARIES (UNGAUGED)

Version 2 – June 2020

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. ***Scan the QR code for the current levels for this gauge.***

CLOSEST RAIN GAUGE	**Yarra River at Heidelberg**
LOCATION	**East bank of River on Northern side of Banksia Street Bridge, Bulleen**
WEBSITE:	https://www.melbournewater.com.au/water/rainfall-and-river-levels#/reader/229135A

MELWAY REF:	**32 C5**
GAUGE NUMBER	**229135A**
GAUGE TYPE	**Stream Level & Rain**

Design Rainfall Depths (mm) – *Indication of Possible Flooding*	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
25mm in 10 mins; 41mm in 30 mins; 50mm in 1 hour; 59mm in 2 hours; 65mm in 3 hours; or 79mm 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)	• Note: It is not known at what level infrastructure contained below starts being flooded **Properties at Flood Risk** **214 Properties in Total** **Irvine Road Drain** • 3 & 5 Beauview Parade, Ivanhoe East • 1, 1B, 1A, 2, 3, 5, 7 & 4/15 Cedric Street, Ivanhoe East • Units 1-6/208, Shops 1-5/210, 216, 220, 223, 1/223, 225, 1/225, 227, 229, 1/229, 2/229, 231, 233, 235A, 237, 1/239, 2/239, 241, 243 & 2/243 Lower Heidelberg Road, Ivanhoe East • 177 The Boulevard, Ivanhoe East • 3, 7, 9, 11, 13, 5/23, 6/23, 33, 39, 43, Units 3-5/45, 2/47, 3/47, 1/49, 2/49, 51, 2/53, 55, 57 & 2/61 Wilfred Road, Ivanhoe East **Locksley Road Main Drain** • 18D, 18C, 18B, 18A & 20 Ashby Grove, Eaglemont • 18 Clarence Street, Ivanhoe • 11 Hopetoun Grove, Eaglemont • 1, 2 & 4 Linton Street, Ivanhoe • 5/44, 6/44, 7/44, 8/46, 6/48, 7/48 & 6/52 Locksley Road, Ivanhoe • 129A, 129, Units 1-4/131, Units 1-8/135, Units 1-8/139, Units 1-14/143, Units 1-5/147, 151, 153 & 1/155 Locksley Road, Eaglemont • 41, 43, 45, 70, 72, 74, 1/117, 2/117 & 3/117 Lower Heidelberg Road, Ivanhoe • 92, 1/94, 2/94, 3/94, 4/94, 5/94, 6/94, 7/94, 8/94, 9/94, 10/94, 96, 98 & 100 Maltravers Road, Eaglemont • 109-111 Maltravers Road, Ivanhoe East	

Design Rainfall Depths (mm) – *Indication of Possible Flooding*	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		• 115 Maltravers Road, Ivanhoe • 49 Marshall Street, Ivanhoe • 1, Units 1-10/3, Units 1-5/5, 7, Units 1-10/9 Rotherwood Road, Ivanhoe East • 25, 1/27, 2/27, 3/27 & 4/27 Sherwood Road, Ivanhoe • 69, 71, 73, 74, 74A, 75, 76, 77, 78, 79, 80, 80A, 81 & 82 Silverdale Road, Eaglemont • 30 & 32 Thoresby Grove, Ivanhoe • 2, 4, 8, 10, 12, 14, 16, 18, 20, 24 & 26 Townsend Street, Ivanhoe East • 27, 29 & 31 Townsend Street, Ivanhoe • 4 & 6 Young Street, Ivanhoe **Community Infrastructure Likely Flooded** • Goodstart Early Learning Ivanhoe at 49 Marshall Street, Ivanhoe **Water Over Road** • Ashby Grove, Ivanhoe • Cedric Street, Ivanhoe East • Clarence Street, Ivanhoe • Gilbert Road, Ivanhoe • Maltravers Road, Ivanhoe • Townsend Street, Ivanhoe	
100mm over 4 hours	3rd December 2003 Flood Level Peak	**Event Summary** • Properties flooded in Maltravers Road and Carmichael Street, Ivanhoe	

Table C1.14 – Breakdown of possible consequences at various rainfall intensities around the Yarra River's stormwater Tributaries in Banyule with operational considerations

APPENDIX C2 – PLENTY RIVER FLOOD EMERGENCY PLAN

Overview of Flooding Consequences

Greensborough, Watsonia North, Montmorency, Yallambie, Viewbank & Lower Plenty are located approximately 14km North East of Melbourne in a predominantly established residential area. The Plenty River being the prominent water course in the area flows from the north through the Municipalities of Whittlesea & Nillumbik and discharges at the Yarra River to the south bordering the City of Manningham.

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 Plenty River in Banyule

Property					
Properties	**57**				
Residential	49				
Commercial	0				
Industrial	2				
Public Land	5				
Rural	1				
Community Infrastructure					
Schools / Colleges	1	Montmorency Secondary College			
Child Care / Kindergartens	1	Joyce Ave Children's Centre			
Essential Infrastructure					
Major Roads	1	Para Road			
Bus Routes	3	293, 901 & 902			
Sewerage Facilities	1	Emergency Relief Point			
Drainage Facilities	6	Retarding Basins			
Tourism / Recreation					
Sports Facilities	5	Heidelberg Golf Club; Montmorency Football & Tennis Clubs; Rosanna Golf Club; Willinda Park Athletics Track; & Yallambie Park & Tennis Courts	Caravan Parks	0	
Recreation Facilities	3	Plenty River Trail; Poulter Ave Reserve; & Whatmough Park	Camping Grounds	0	
Government Boundaries					
Local Gov't Areas	1	Banyule	CMA	1	Port Phillip & Westernport
Adjacent LGAs	3	Nillumbik, Whittlesea & Manningham	CFA District	1	District 14
SES Resp' Boundary	2	Northcote & Nillumbik	FRV District	1	Northern

Table C2.1 – Consequence Summary of 1% AEP flood along Plenty River in Banyule

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 Plenty River's Stormwater Tributaries

Property					
Properties	**387**				
Residential	385				
Commercial	0				
Industrial	0				
Public Land	2				
Rural	0				
Community Infrastructure					
Care Facilities	1	Banksia Place Aged Care			
Child Care / Kindergartens	1	Grace Park Preschool			
Community Venues	1	Lower Plenty Scout Group Hall			
Essential Infrastructure					
Major Roads	1	Diamond Creek Road			
Sewerage Facilities	0				
Levees	1	Watsonia Drain Levee			
Tourism / Recreation					
Recreation Facilities	1	Binnak Park			
Government Boundaries					
Local Gov't Areas	1	Banyule	CMA	1	Port Phillip & Westernport
Adjacent LGAs	0		CFA District	1	District 14
SES Resp' Boundary	2	Northcote & Nillumbik	FRV District	1	Northern

Table C2.2 – Consequence Summary of 1% AEP flood along Plenty River's Stormwater Tributaries in Banyule

Gauges and Warnings

Warnings are available for flooding expected along the Plenty River at Lower Plenty. Flood class levels for the Lower Plenty gauge are detailed in table C2.3 and are used in the issuing of a flood warning for the Plenty River. Other level / flood gauges within the Plenty River catchment are also contained within table C2.4.

Gauge	Flood Class Level		
	Minor	Moderate	Major
Plenty River at Lower Plenty	5.0m	6.6m	7.2m

Table C2.3 – Gauges with established Flood Class Levels for the Plenty River in the City of Banyule

At this site on the Plenty River, 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**) and the VicEmergency website https:/emergency.vic.gov.au/. While the City of Banyule monitors these warnings in times of high rainfall, there are no specific guidelines to advise how these situations should be responded to.

The Gauges below 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.

Gauges	Station No.	Location	Stream Level & Flow Gauge	Rain Gauge	Melway Reference
Plenty River at Greensborough	229615A	East bank of River along the Maroondah Aqueduct	✓	✓	10 J9
Plenty River at Mernda	229616A	East bank of River, northern side of Bridge Inn Rd Bridge, Mernda	✓	✓	390K10
Plenty River at Lower Plenty	229614A	East bank of River on Northern side of Main Road	✓	✓	20 K9
Viewbank AWS	86068	Southern side of Country Lane, Viewbank		✓	20 H12

Table C2.4 – Gauges within the Plenty River catchment

Area Map of Flood Risk within the Plenty River Catchment

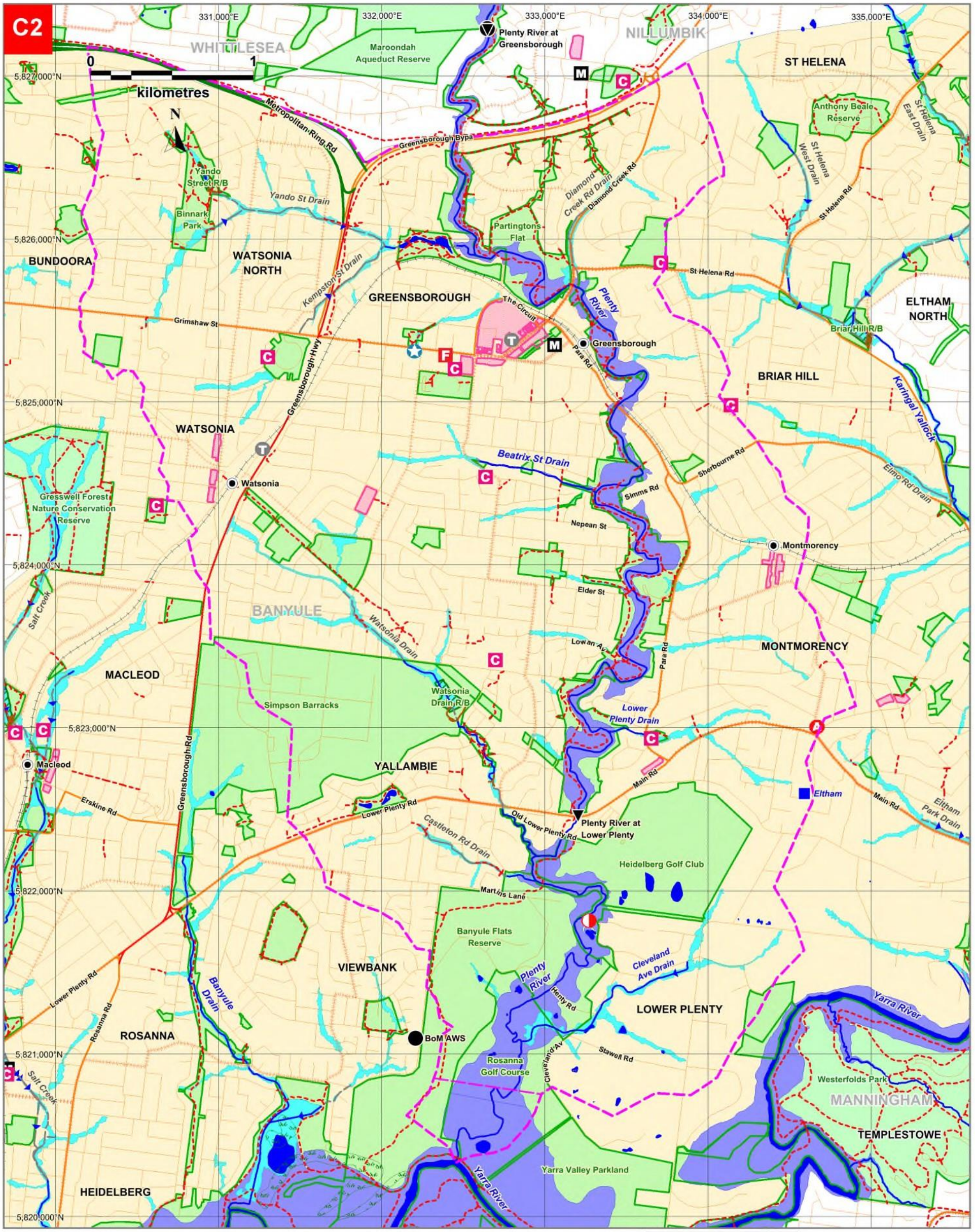


Figure C2 – Areas of flood risk around Plenty River in the City of Banyule and area covered by this Appendices

Properties at Flood Risk

Properties listed in the table below are at risk from flooding along the Plenty River in Banyule during a 1% AEP event. As more intelligence becomes available, this list may change. This table has been populated based on modelling work as part of the Plenty River (Melbourne Water) 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 Plenty River 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	Bicton Street	Greensborough	Plenty River	Riverine
8	Bicton Street	Greensborough	Plenty River	Riverine
10	Bicton Street	Greensborough	Plenty River	Riverine
11	Bicton Street	Greensborough	Plenty River	Riverine
12	Bicton Street	Greensborough	Plenty River	Riverine
14	Bicton Street	Greensborough	Plenty River	Riverine
16	Bicton Street	Greensborough	Plenty River	Riverine
18	Bicton Street	Greensborough	Plenty River	Riverine
58	Cleveland Avenue	Lower Plenty	Plenty River	Riverine
3	Currawong Lane	Greensborough	Plenty River	Riverine
1/4	Currawong Lane	Greensborough	Plenty River	Riverine
2/4	Currawong Lane	Greensborough	Plenty River	Riverine
1	Diamond Creek Road	Greensborough	Plenty River	Riverine
78	Gladstone Road	Briar Hill	Plenty River	Riverine
82	Gladstone Road	Briar Hill	Plenty River	Riverine
3	Greenmeyer Court	Greensborough	Plenty River	Riverine
5	Greenmeyer Court	Greensborough	Plenty River	Riverine
7	Greenmeyer Court	Greensborough	Plenty River	Riverine
9	Greenmeyer Court	Greensborough	Plenty River	Riverine
11	Greenmeyer Court	Greensborough	Plenty River	Riverine
15	Greenmeyer Court	Greensborough	Plenty River	Riverine
17	Greenmeyer Court	Greensborough	Plenty River	Riverine
19	Greenmeyer Court	Greensborough	Plenty River	Riverine
21	Greenmeyer Court	Greensborough	Plenty River	Riverine
23	Greenmeyer Court	Greensborough	Plenty River	Riverine
25	Greenmeyer Court	Greensborough	Plenty River	Riverine
4	Henty Road	Lower Plenty	Plenty River	Riverine
1	Joyce Avenue	Greensborough	Plenty River	Riverine
9-13	Joyce Avenue	Greensborough	Plenty River	Riverine
17	Joyce Avenue	Greensborough	Plenty River	Riverine
19	Joyce Avenue	Greensborough	Plenty River	Riverine
21	Joyce Avenue	Greensborough	Plenty River	Riverine
2	Kalparrin Avenue	Greensborough	Plenty River	Riverine
20	Longs Road	Lower Plenty	Plenty River	Riverine

Properties at risk from Flooding along Plenty River during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
22	Longs Road	Lower Plenty	Plenty River	Riverine
24	Longs Road	Lower Plenty	Plenty River	Riverine
2	Maida Court	Lower Plenty	Plenty River	Riverine
4	Maida Court	Lower Plenty	Plenty River	Riverine
6	Maida Court	Lower Plenty	Plenty River	Riverine
8	Maida Court	Lower Plenty	Plenty River	Riverine
10	Maida Court	Lower Plenty	Plenty River	Riverine
11	Maida Court	Lower Plenty	Plenty River	Riverine
109	Para Road	Montmorency	Plenty River	Riverine
201-209	Para Road	Greensborough	Plenty River	Riverine
227	Para Road	Greensborough	Plenty River	Riverine
227A	Para Road	Greensborough	Plenty River	Riverine
36	Paterson Crescent	Greensborough	Plenty River	Riverine
26	Poulter Avenue	Greensborough	Plenty River	Riverine
54	Poulter Avenue	Greensborough	Plenty River	Riverine
56	Poulter Avenue	Greensborough	Plenty River	Riverine
5	Rand Street	Greensborough	Plenty River	Riverine
7	Rand Street	Greensborough	Plenty River	Riverine
8	Rand Street	Greensborough	Plenty River	Riverine
10	Rand Street	Greensborough	Plenty River	Riverine
12	Rand Street	Greensborough	Plenty River	Riverine
14	Rand Street	Greensborough	Plenty River	Riverine
2/27	Simms Road	Montmorency	Plenty River	Riverine

Total
57

Table C2.5 – Properties at risk of flooding along the Plenty River in the City of Banyule.

Properties listed in the table below are at risk from flooding along Plenty River's Stormwater Tributaries during a 1% AEP event in Banyule. As more intelligence becomes available, this list may change. This table has been populated based on modelling work as part of the DS-City of Banyule (CMPS&F) and the Development of the Special Building Overlay (Engeny, February 2015) 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 Plenty River's Stormwater Tributaries during a 1% AEP event

Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
3	Adina Court	Yallambie	Local Drainage	Flash
19	Alban Street	Montmorency	Local Drainage	Flash
2	Albany Court	Macleod	Watsonia Drain	Flash
4	Albany Court	Macleod	Watsonia Drain	Flash
6	Albany Court	Macleod	Watsonia Drain	Flash
8	Albany Court	Macleod	Watsonia Drain	Flash
10	Albany Court	Macleod	Watsonia Drain	Flash
12	Albany Court	Macleod	Watsonia Drain	Flash
3/31	Alexander Street	Montmorency	Local Drainage	Flash
4/31	Alexander Street	Montmorency	Local Drainage	Flash
7/31	Alexander Street	Montmorency	Local Drainage	Flash
8/31	Alexander Street	Montmorency	Local Drainage	Flash
34	Alexander Street	Montmorency	Local Drainage	Flash
64	Allima Avenue	Yallambie	Local Drainage	Flash
7/18	Alma Street	Lower Plenty	Local Drainage	Flash
8/18	Alma Street	Lower Plenty	Local Drainage	Flash
6/22	Alma Street	Lower Plenty	Local Drainage	Flash
7/22	Alma Street	Lower Plenty	Local Drainage	Flash
54A	Alma Street	Lower Plenty	Local Drainage	Flash
17	Amaroo Way	Yallambie	Local Drainage	Flash
19	Amaroo Way	Yallambie	Local Drainage	Flash
21	Amaroo Way	Yallambie	Local Drainage	Flash
23	Amaroo Way	Yallambie	Local Drainage	Flash
25	Amaroo Way	Yallambie	Local Drainage	Flash
27	Amaroo Way	Yallambie	Local Drainage	Flash
12	Anderson Parade	Bundoora	Yando St Drain	Flash
27	Anderson Parade	Bundoora	Yando St Drain	Flash
29	Anderson Parade	Bundoora	Yando St Drain	Flash
26	Astley Street	Montmorency	Local Drainage	Flash
29	Astley Street	Montmorency	Local Drainage	Flash
31	Astley Street	Montmorency	Local Drainage	Flash
14	Atkins Avenue	Watsonia North	Yando St Drain	Flash
2	Attwood Court	Viewbank	Castleton Road Drain	Flash
3	Attwood Court	Viewbank	Castleton Road Drain	Flash
41	Avandina Crescent	Greensborough	Diamond Creek Rd Drain	Flash

Properties at risk from Flooding along Plenty River's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
43	Avandina Crescent	Greensborough	Diamond Creek Rd Drain	Flash
45	Avandina Crescent	Greensborough	Diamond Creek Rd Drain	Flash
28	Bannerman Avenue	Greensborough	Local Drainage	Flash
33	Bannerman Avenue	Greensborough	Local Drainage	Flash
35	Bannerman Avenue	Greensborough	Local Drainage	Flash
37	Bannerman Avenue	Greensborough	Local Drainage	Flash
39	Bannerman Avenue	Greensborough	Local Drainage	Flash
1/41	Bannerman Avenue	Greensborough	Local Drainage	Flash
8	Bawden Close	Watsonia North	Yando St Drain	Flash
12	Bawden Close	Watsonia North	Yando St Drain	Flash
17	Beattie Street	Montmorency	Local Drainage	Flash
26A	Beattie Street	Montmorency	Local Drainage	Flash
7	Bentley Court	Watsonia North	Yando St Drain	Flash
1	Boyd Street	Greensborough	Kempston St Drain	Flash
3	Boyd Street	Greensborough	Kempston St Drain	Flash
20	Boyd Street	Greensborough	Kempston St Drain	Flash
22	Boyd Street	Greensborough	Kempston St Drain	Flash
22	Broadlea Crescent	Viewbank	Castleton Road Drain	Flash
2/3	Bungay Street	Watsonia	Local Drainage	Flash
5	Bungay Street	Watsonia	Local Drainage	Flash
1/7	Bungay Street	Watsonia	Local Drainage	Flash
2/7	Bungay Street	Watsonia	Local Drainage	Flash
9	Bungay Street	Watsonia	Local Drainage	Flash
11	Bungay Street	Watsonia	Local Drainage	Flash
13	Bungay Street	Watsonia	Local Drainage	Flash
2/15	Bungay Street	Watsonia	Local Drainage	Flash
1	Byrne Crescent	Watsonia North	Yando St Drain	Flash
1	Byron Avenue	Lower Plenty	Local Drainage	Flash
3	Byron Avenue	Lower Plenty	Local Drainage	Flash
19	Byron Avenue	Lower Plenty	Local Drainage	Flash
21	Byron Avenue	Lower Plenty	Local Drainage	Flash
23	Byron Avenue	Lower Plenty	Local Drainage	Flash
25	Byron Avenue	Lower Plenty	Local Drainage	Flash
27	Byron Avenue	Lower Plenty	Local Drainage	Flash
29	Byron Avenue	Lower Plenty	Local Drainage	Flash
31	Byron Avenue	Lower Plenty	Local Drainage	Flash
144	Cameron Parade	Bundoora	Yando St Drain	Flash
146	Cameron Parade	Bundoora	Yando St Drain	Flash
72	Castleton Road	Viewbank	Castleton Road Drain	Flash
80	Castleton Road	Viewbank	Castleton Road Drain	Flash
82	Castleton Road	Viewbank	Castleton Road Drain	Flash
84	Castleton Road	Viewbank	Castleton Road Drain	Flash
11	Clara Street	Macleod	Watsonia Drain	Flash
12	Clara Street	Macleod	Watsonia Drain	Flash

Properties at risk from Flooding along Plenty River's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
14	Clara Street	Macleod	Watsonia Drain	Flash
15	Clara Street	Macleod	Watsonia Drain	Flash
31	Cleveland Avenue	Lower Plenty	Cleveland Avenue Drain	Flash
8	Cooinda Crescent	Watsonia	Watsonia Drain	Flash
1/10	Cooinda Crescent	Watsonia	Watsonia Drain	Flash
11	Delta Road	Greensborough	Watsonia Drain	Flash
110	Delta Road	Greensborough	Beatrix Street Drain	Flash
111	Delta Road	Greensborough	Beatrix Street Drain	Flash
112	Delta Road	Greensborough	Beatrix Street Drain	Flash
114	Delta Road	Greensborough	Beatrix Street Drain	Flash
1	Dendaryl Drive	Bundoora	Yando St Drain	Flash
3	Dendaryl Drive	Bundoora	Yando St Drain	Flash
5	Dendaryl Drive	Bundoora	Yando St Drain	Flash
1	Diamond Creek Road	Greensborough	Diamond Creek Rd Drain	Flash
5/82-84	Diamond Creek Road	Greensborough	Diamond Creek Rd Drain	Flash
24	Donach Crescent	Bundoora	Yando St Drain	Flash
26	Donach Crescent	Bundoora	Yando St Drain	Flash
34	Donach Crescent	Bundoora	Yando St Drain	Flash
29	Edwards Street	Lower Plenty	Local Drainage	Flash
57	Elder Street	Watsonia	Watsonia Drain	Flash
1/59	Elder Street	Watsonia	Watsonia Drain	Flash
2/59	Elder Street	Watsonia	Watsonia Drain	Flash
3/59	Elder Street	Watsonia	Watsonia Drain	Flash
61	Elder Street	Watsonia	Watsonia Drain	Flash
63	Elder Street	Watsonia	Watsonia Drain	Flash
28	Elonera Avenue	Yallambie	Local Drainage	Flash
30	Elonera Avenue	Yallambie	Local Drainage	Flash
14	Frensham Road	Macleod	Watsonia Drain	Flash
16	Frensham Road	Macleod	Watsonia Drain	Flash
59	Frensham Road	Watsonia	Watsonia Drain	Flash
61	Frensham Road	Watsonia	Watsonia Drain	Flash
12	Gabonia Avenue	Watsonia	Watsonia Drain	Flash
74	Gabonia Avenue	Watsonia	Watsonia Drain	Flash
5	Glennden Court	Bundoora	Yando St Drain	Flash
27	Grant Street	Watsonia North	Yando St Drain	Flash
34	Grant Street	Watsonia North	Yando St Drain	Flash
36	Grant Street	Watsonia North	Yando St Drain	Flash
38	Grant Street	Watsonia North	Yando St Drain	Flash
41	Grant Street	Watsonia North	Yando St Drain	Flash
166	Grimshaw Street	Greensborough	Local Drainage	Flash
362	Grimshaw Street	Bundoora	Yando St Drain	Flash
364	Grimshaw Street	Bundoora	Yando St Drain	Flash
21	Hakea Street	Watsonia North	Yando St Drain	Flash
25	Hakea Street	Watsonia North	Yando St Drain	Flash

Properties at risk from Flooding along Plenty River's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
2/27	Hakea Street	Watsonia North	Yando St Drain	Flash
35	Hakea Street	Watsonia North	Yando St Drain	Flash
37	Hakea Street	Watsonia North	Yando St Drain	Flash
39	Hakea Street	Watsonia North	Yando St Drain	Flash
41	Hakea Street	Watsonia North	Yando St Drain	Flash
43	Hakea Street	Watsonia North	Yando St Drain	Flash
38	Harborne Street	Macleod	Watsonia Drain	Flash
40	Harborne Street	Macleod	Watsonia Drain	Flash
42	Harborne Street	Macleod	Watsonia Drain	Flash
44	Harborne Street	Macleod	Watsonia Drain	Flash
46	Harborne Street	Macleod	Watsonia Drain	Flash
48	Harborne Street	Macleod	Watsonia Drain	Flash
50	Harborne Street	Macleod	Watsonia Drain	Flash
52	Harborne Street	Macleod	Watsonia Drain	Flash
76	Harborne Street	Macleod	Watsonia Drain	Flash
78	Harborne Street	Macleod	Watsonia Drain	Flash
80	Harborne Street	Macleod	Watsonia Drain	Flash
82	Harborne Street	Macleod	Watsonia Drain	Flash
84	Harborne Street	Macleod	Watsonia Drain	Flash
1/93	Harborne Street	Macleod	Watsonia Drain	Flash
2/93	Harborne Street	Macleod	Watsonia Drain	Flash
2/102	Harborne Street	Macleod	Watsonia Drain	Flash
1	Hedline Place	Macleod	Watsonia Drain	Flash
2	Hedline Place	Macleod	Watsonia Drain	Flash
14	Hedline Place	Macleod	Watsonia Drain	Flash
15	Hedline Place	Macleod	Watsonia Drain	Flash
95	Henry Street	Greensborough	Local Drainage	Flash
97	Henry Street	Greensborough	Local Drainage	Flash
98	Henry Street	Greensborough	Local Drainage	Flash
5/157-159	Henry Street	Greensborough	Beatrix Street Drain	Flash
165	Henry Street	Greensborough	Beatrix Street Drain	Flash
24	High Street	Watsonia	Local Drainage	Flash
29	Hoban Avenue	Montmorency	Local Drainage	Flash
32	Hoban Avenue	Montmorency	Local Drainage	Flash
6	Inala Court	Yallambie	Local Drainage	Flash
7	Inala Court	Yallambie	Local Drainage	Flash
8	Inala Court	Yallambie	Local Drainage	Flash
7	James Street	Montmorency	Local Drainage	Flash
22	Janice Street	Macleod	Watsonia Drain	Flash
24	Janice Street	Macleod	Watsonia Drain	Flash
2	Jennifer Court	Macleod	Watsonia Drain	Flash
3	Jennifer Court	Macleod	Watsonia Drain	Flash
16	Jennifer Court	Macleod	Watsonia Drain	Flash
17	Jennifer Court	Macleod	Watsonia Drain	Flash

Properties at risk from Flooding along Plenty River's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
22	Kardinia Street	Watsonia	Beatrix Street Drain	Flash
22A	Kardinia Street	Watsonia	Beatrix Street Drain	Flash
24	Kardinia Street	Watsonia	Beatrix Street Drain	Flash
45	Kempston Street	Greensborough	Kempston St Drain	Flash
47	Kempston Street	Greensborough	Kempston St Drain	Flash
49	Kempston Street	Greensborough	Kempston St Drain	Flash
57	Kempston Street	Greensborough	Kempston St Drain	Flash
59	Kempston Street	Greensborough	Kempston St Drain	Flash
61	Kempston Street	Greensborough	Yando St Drain	Flash
22	Kentwood Road	Macleod	Watsonia Drain	Flash
24	Kentwood Road	Macleod	Watsonia Drain	Flash
1	Keswick Glen	Greensborough	Diamond Creek Rd Drain	Flash
3	Kett Street	Lower Plenty	Local Drainage	Flash
4	Kett Street	Lower Plenty	Local Drainage	Flash
4	Kiama Close	Montmorency	Local Drainage	Flash
4	Knight Street	Watsonia	Local Drainage	Flash
1/6	Knight Street	Watsonia	Local Drainage	Flash
2/6	Knight Street	Watsonia	Local Drainage	Flash
9	Laura Court	Greensborough	Kempston St Drain	Flash
10	Lincoln Drive	Lower Plenty	Local Drainage	Flash
12	Lincoln Drive	Lower Plenty	Local Drainage	Flash
2/20	Lorimer Street	Greensborough	Local Drainage	Flash
3/22	Lorimer Street	Greensborough	Local Drainage	Flash
24	Lorimer Street	Greensborough	Local Drainage	Flash
26	Lorimer Street	Greensborough	Local Drainage	Flash
2/28	Lorimer Street	Greensborough	Local Drainage	Flash
3/28	Lorimer Street	Greensborough	Local Drainage	Flash
1/30	Lorimer Street	Greensborough	Local Drainage	Flash
2/30	Lorimer Street	Greensborough	Local Drainage	Flash
32	Lorimer Street	Greensborough	Local Drainage	Flash
34	Lorimer Street	Greensborough	Local Drainage	Flash
36	Lorimer Street	Greensborough	Local Drainage	Flash
1	Lowan Avenue	Yallambie	Local Drainage	Flash
3	Lowan Avenue	Yallambie	Local Drainage	Flash
5	Lowan Avenue	Yallambie	Local Drainage	Flash
7	Lowan Avenue	Yallambie	Local Drainage	Flash
9	Lowan Avenue	Yallambie	Local Drainage	Flash
11	Lyell Parade	Greensborough	Beatrix Street Drain	Flash
22	Lynwood Crescent	Lower Plenty	Local Drainage	Flash
91	Macorna Street	Watsonia North	Yando St Drain	Flash
128	Macorna Street	Watsonia North	Yando St Drain	Flash
123	Main Road	Lower Plenty	Local Drainage	Flash
133	Main Road	Lower Plenty	Local Drainage	Flash
135	Main Road	Lower Plenty	Local Drainage	Flash

Properties at risk from Flooding along Plenty River's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
5/141	Main Road	Lower Plenty	Local Drainage	Flash
6/141	Main Road	Lower Plenty	Local Drainage	Flash
8/141	Main Road	Lower Plenty	Local Drainage	Flash
9/141	Main Road	Lower Plenty	Local Drainage	Flash
146	Main Road	Lower Plenty	Local Drainage	Flash
150	Main Road	Lower Plenty	Local Drainage	Flash
2/151	Main Road	Lower Plenty	Local Drainage	Flash
3/151	Main Road	Lower Plenty	Local Drainage	Flash
2/155	Main Road	Lower Plenty	Local Drainage	Flash
2/157	Main Road	Lower Plenty	Local Drainage	Flash
2/159	Main Road	Lower Plenty	Local Drainage	Flash
3/159	Main Road	Lower Plenty	Local Drainage	Flash
3/161	Main Road	Lower Plenty	Local Drainage	Flash
2/165	Main Road	Lower Plenty	Local Drainage	Flash
4/169	Main Road	Lower Plenty	Local Drainage	Flash
5/169	Main Road	Lower Plenty	Local Drainage	Flash
3/179	Main Road	Lower Plenty	Local Drainage	Flash
3/183	Main Road	Lower Plenty	Local Drainage	Flash
185	Main Road	Lower Plenty	Local Drainage	Flash
165	Martins Lane	Viewbank	Castleton Road Drain	Flash
1	Maskell Crescent	Lower Plenty	Local Drainage	Flash
5	Meagher Street	Watsonia	Local Drainage	Flash
25	Medbury Avenue	Watsonia	Beatrix Street Drain	Flash
27	Medbury Avenue	Watsonia	Beatrix Street Drain	Flash
40	Medbury Avenue	Greensborough	Beatrix Street Drain	Flash
56	Medbury Avenue	Greensborough	Beatrix Street Drain	Flash
58	Medbury Avenue	Greensborough	Beatrix Street Drain	Flash
25	Michelle Avenue	Watsonia North	Yando St Drain	Flash
27	Michelle Avenue	Watsonia North	Yando St Drain	Flash
29	Michelle Avenue	Watsonia North	Yando St Drain	Flash
20	Montrose Street	Montmorency	Local Drainage	Flash
3	Moola Close	Yallambie	Local Drainage	Flash
4	Moola Close	Yallambie	Local Drainage	Flash
5	Moola Close	Yallambie	Local Drainage	Flash
5/91	Nell Street	Greensborough	Beatrix Street Drain	Flash
6/91	Nell Street	Greensborough	Beatrix Street Drain	Flash
3/93	Nell Street	Greensborough	Beatrix Street Drain	Flash
102	Nell Street	Greensborough	Beatrix Street Drain	Flash
104	Nell Street	Greensborough	Beatrix Street Drain	Flash
250	Nell Street	Watsonia	Local Drainage	Flash
251	Nell Street	Watsonia	Local Drainage	Flash
253	Nell Street	Watsonia	Local Drainage	Flash
156	Nepean Street	Greensborough	Local Drainage	Flash
158	Nepean Street	Greensborough	Local Drainage	Flash

Properties at risk from Flooding along Plenty River's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
179	Nepean Street	Greensborough	Local Drainage	Flash
181	Nepean Street	Greensborough	Local Drainage	Flash
183	Nepean Street	Greensborough	Local Drainage	Flash
3	Nokes Court	Montmorency	Local Drainage	Flash
4	Nokes Court	Montmorency	Local Drainage	Flash
5	Nokes Court	Montmorency	Local Drainage	Flash
6-8	Nokes Court	Montmorency	Local Drainage	Flash
1/2	Old Lower Plenty Road	Viewbank	Watsonia Drain	Flash
2/2	Old Lower Plenty Road	Viewbank	Watsonia Drain	Flash
3/2	Old Lower Plenty Road	Viewbank	Watsonia Drain	Flash
11	Orana Drive	Watsonia	Watsonia Drain	Flash
15	Orana Drive	Watsonia	Watsonia Drain	Flash
55	Orana Drive	Watsonia	Watsonia Drain	Flash
57	Orana Drive	Watsonia	Watsonia Drain	Flash
2	Palara Court	Montmorency	Local Drainage	Flash
4	Palara Court	Montmorency	Local Drainage	Flash
6	Palara Court	Montmorency	Local Drainage	Flash
6/60	Para Road	Montmorency	Local Drainage	Flash
7/60	Para Road	Montmorency	Local Drainage	Flash
1/64	Para Road	Montmorency	Local Drainage	Flash
2/64	Para Road	Montmorency	Local Drainage	Flash
3/64	Para Road	Montmorency	Local Drainage	Flash
4/64	Para Road	Montmorency	Local Drainage	Flash
5/64	Para Road	Montmorency	Local Drainage	Flash
6/64	Para Road	Montmorency	Local Drainage	Flash
16-18	Pavey Court	Macleod	Watsonia Drain	Flash
19	Pavey Court	Macleod	Watsonia Drain	Flash
9/7-13	Pinehills Drive	Greensborough	Yando St Drain	Flash
2/16	Princes Street	Watsonia	Local Drainage	Flash
2/18	Princes Street	Watsonia	Local Drainage	Flash
4	Rainsford Place	Viewbank	Castleton Road Drain	Flash
1	Rasheda Street	Watsonia	Watsonia Drain	Flash
3	Rasheda Street	Watsonia	Watsonia Drain	Flash
5	Rasheda Street	Watsonia	Watsonia Drain	Flash
7	Rasheda Street	Watsonia	Watsonia Drain	Flash
9	Rasheda Street	Watsonia	Watsonia Drain	Flash
2/2	Reeves Street	Watsonia	Local Drainage	Flash
17A	Riverview Road	Montmorency	Local Drainage	Flash
3	Rushworth Street	Watsonia	Local Drainage	Flash
5	Rushworth Street	Watsonia	Local Drainage	Flash
7	Rushworth Street	Watsonia	Local Drainage	Flash
9	Rushworth Street	Watsonia	Local Drainage	Flash
11	Rushworth Street	Watsonia	Local Drainage	Flash
15	Rushworth Street	Watsonia	Local Drainage	Flash

Properties at risk from Flooding along Plenty River's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
2/17	Rushworth Street	Watsonia	Local Drainage	Flash
19	Rushworth Street	Watsonia	Local Drainage	Flash
21	Rushworth Street	Watsonia	Local Drainage	Flash
23	Rushworth Street	Watsonia	Local Drainage	Flash
2/25	Rushworth Street	Watsonia	Local Drainage	Flash
27	Rushworth Street	Watsonia	Local Drainage	Flash
29	Rushworth Street	Watsonia	Local Drainage	Flash
8	Saul Court	Greensborough	Watsonia Drain	Flash
4/50	Scotland Avenue	Greensborough	Local Drainage	Flash
5/50	Scotland Avenue	Greensborough	Local Drainage	Flash
6/50	Scotland Avenue	Greensborough	Local Drainage	Flash
7/50	Scotland Avenue	Greensborough	Local Drainage	Flash
8/50	Scotland Avenue	Greensborough	Local Drainage	Flash
9/50	Scotland Avenue	Greensborough	Local Drainage	Flash
10/50	Scotland Avenue	Greensborough	Local Drainage	Flash
11/50	Scotland Avenue	Greensborough	Local Drainage	Flash
12/50	Scotland Avenue	Greensborough	Local Drainage	Flash
384	Service Road	Watsonia	Watsonia Drain	Flash
386	Service Road	Watsonia	Watsonia Drain	Flash
41	Sharpes Road	Watsonia North	Yando St Drain	Flash
43	Sharpes Road	Watsonia North	Yando St Drain	Flash
45	Sharpes Road	Watsonia North	Yando St Drain	Flash
47	Sharpes Road	Watsonia North	Yando St Drain	Flash
49	Sharpes Road	Watsonia North	Yando St Drain	Flash
51	Sharpes Road	Watsonia North	Yando St Drain	Flash
5A	Shaylor Court	Greensborough	Beatrix Street Drain	Flash
5	Shaylor Court	Greensborough	Beatrix Street Drain	Flash
7	Shaylor Court	Greensborough	Beatrix Street Drain	Flash
9	Shaylor Court	Greensborough	Beatrix Street Drain	Flash
11	Shaylor Court	Greensborough	Beatrix Street Drain	Flash
15	Shaylor Court	Greensborough	Beatrix Street Drain	Flash
17	Shaylor Court	Greensborough	Beatrix Street Drain	Flash
1	Sherlowe Crescent	Viewbank	Castleton Road Drain	Flash
2	Sherlowe Crescent	Viewbank	Castleton Road Drain	Flash
4	Sherlowe Crescent	Viewbank	Castleton Road Drain	Flash
36	Sherlowe Crescent	Viewbank	Castleton Road Drain	Flash
34	Station Road	Montmorency	Local Drainage	Flash
7	Stephanie Court	Macleod	Watsonia Drain	Flash
8	Stephanie Court	Macleod	Watsonia Drain	Flash
9	Stephanie Court	Macleod	Watsonia Drain	Flash
11	Stephanie Court	Macleod	Watsonia Drain	Flash
7	Strickland Court	Greensborough	Local Drainage	Flash
9	Strickland Court	Greensborough	Local Drainage	Flash
10	Strickland Court	Greensborough	Local Drainage	Flash

Properties at risk from Flooding along Plenty River's Stormwater Tributaries during a 1% AEP event					
Residential		Commercial	Industrial	Rural	Public Use
Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type	
16	Sussex Street	Bundoora	Yando St Drain	Flash	
18	Sussex Street	Bundoora	Yando St Drain	Flash	
4	Tarcoola Drive	Yallambie	Local Drainage	Flash	
39	Tarcoola Drive	Yallambie	Local Drainage	Flash	
41	Tarcoola Drive	Yallambie	Local Drainage	Flash	
50	Tarcoola Drive	Yallambie	Local Drainage	Flash	
94	Tarcoola Drive	Yallambie	Local Drainage	Flash	
2	Taree Place	Yallambie	Local Drainage	Flash	
4	Taree Place	Yallambie	Local Drainage	Flash	
4A	Taree Place	Yallambie	Local Drainage	Flash	
6	Taree Place	Yallambie	Local Drainage	Flash	
8	Taree Place	Yallambie	Local Drainage	Flash	
9	Taree Place	Yallambie	Local Drainage	Flash	
3	Terrara Court	Montmorency	Local Drainage	Flash	
4	Terrara Court	Montmorency	Local Drainage	Flash	
6	Terrara Court	Montmorency	Local Drainage	Flash	
11	The Glade	Viewbank	Castleton Road Drain	Flash	
11	Tonyl Court	Greensborough	Local Drainage	Flash	
12	Tonyl Court	Greensborough	Local Drainage	Flash	
4	Victoria Street	Greensborough	Local Drainage	Flash	
3/140	Watsonia Road	Watsonia	Local Drainage	Flash	
4/140	Watsonia Road	Watsonia	Local Drainage	Flash	
141	Watsonia Road	Watsonia	Local Drainage	Flash	
143	Watsonia Road	Watsonia	Local Drainage	Flash	
2/4	Weatherlake Street	Watsonia	Local Drainage	Flash	
2/6	Weatherlake Street	Watsonia	Local Drainage	Flash	
2/12	Weatherlake Street	Watsonia	Local Drainage	Flash	
14	Weatherlake Street	Watsonia	Local Drainage	Flash	
16	Weatherlake Street	Watsonia	Local Drainage	Flash	
18	Weatherlake Street	Watsonia	Local Drainage	Flash	
20	Weatherlake Street	Watsonia	Local Drainage	Flash	
17	Wilkinson Street	Macleod	Watsonia Drain	Flash	
19	Wilkinson Street	Macleod	Watsonia Drain	Flash	
2	Woodlands Rise	Macleod	Watsonia Drain	Flash	
3	Woodlands Rise	Macleod	Watsonia Drain	Flash	
4	Woodlands Rise	Macleod	Watsonia Drain	Flash	
5	Woodlands Rise	Macleod	Watsonia Drain	Flash	
2/145	Yallambie Road	Macleod	Watsonia Drain	Flash	
147	Yallambie Road	Macleod	Watsonia Drain	Flash	
348	Yallambie Road	Yallambie	Watsonia Drain	Flash	
352	Yallambie Road	Yallambie	Watsonia Drain	Flash	
354	Yallambie Road	Yallambie	Watsonia Drain	Flash	
2/12	Yando Street	Greensborough	Yando St Drain	Flash	
3/12	Yando Street	Greensborough	Yando St Drain	Flash	

Properties at risk from Flooding along Plenty River's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type

Total
387

Table C2.6 – Properties at risk of flash flooding along the Plenty River catchment in the City of Banyule

Isolation

No major isolation risks exist for areas around the Plenty River 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 Banyule is available via the website at:
https://static.ptv.vic.gov.au/siteassets/Maps/Localities/PDFs/1_Banyule_LAM_2016.pdf

Apart from the roads outlined below, all other essential infrastructure and services areas around the Plenty River 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 the Plenty River. Check the VicTraffic website for more details: http://alerts.vicroads.vic.gov.au/

Department of Transport Roads flooded	Type of 1% AEP (100yr ARI) Event
• Diamond Creek Road, Greensborough north of St Helena Road	Flash Flooding along Diamond Creek Road Drain
• Para Road, Greensborough at Plenty River crossing	Riverine Flooding along Plenty River

Table C2.7– Department of Transport Possible Road Closures during a flooding event

Banyule City Council Roads flooded in a 1% AEP (100yr ARI) Plenty River flood event
GREENSBOROUGH
• Currawong Lane
• Joyce Avenue
• Kalparrin Avenue
• Rand Street
LOWER PLENTY
• Henty Road
MONTMORENCY
• Dobson Road

Table C2.8 – Banyule City Council Possible Road Closures during a Riverine flooding event

Banyule City Council Roads flooded in a 1% AEP (100yr ARI) flash flood event		
BUNDOORA	**MACLEOD**	**WATSONIA**
• Anderson Parade	• Garbonia Avenue	• Knight Street
• Cameron Parade	• Harborne Street	**WATSONIA NORTH**
GREENSBOROUGH	• Woodlands Rise	• Hakea Street
• Avandina Crescent	**VIEWBANK**	• Grant Street
• Kempston Street	• Castleton Road	• Lawson Court
LOWER PLENTY	• The Glade	**YALLAMBIE**
• Cleveland Avenue		• Yallambie Road

Table C2.9 – Banyule City Council Possible Road Closures during a flash flooding event

Flood Mitigation

Retarding Basins

Melbourne Water Retarding Basin	On Drain/ Waterway	Surface Area at Full Supply Level	Storage Capacity	Spillway Crest Level	Full Supply Level	Embankment Crest Height / Level	ANCOLD Hazard Rating	Houses or Businesses in Flow Path (dam breach)	Melway Reference
Watsonia Drain Retarding Basin, A K Lines Reserve	Watsonia Drain	Unknown	Approx 40 ML	Unknown	Unknown	5.0m / Unknown	High C	16	20 H7
Yando Street Drain Retarding Basin, Kalparrin Gardens	Yando Street Drain	0.57 ha	6.1 ML	74.5m AHD	74.5m AHD	5.0m / 75.0m AHD	Very Low	0	10 E11

Table C2.10 – Melbourne Water Retarding Basins within the Plenty River catchment in the City of Banyule

City of Banyule Retarding Basin	Location	Type	Melway Reference
Cascades View	Cascade Views, Yallambie	Stormwater Treatment Ponds	20 H7
Kalparrin Lake	4 Pinehills Drive, Greensborough	Stormwater Treatment/Harvesting, Wetland	10 H12
Arthur Streeton Reserve Retarding Ponds	1 Arthur Streeton Drive, Yallambie	Stormwater Treatment Ponds	20 G9
A K Lines Reserve	Cnr Grimshaw Street & Greensborough Hwy, Watsonia	Retarding Basin	20 F2

Table C2.11 – Banyule City Council Retarding Basins within the Plenty River catchment in the City of Banyule

Levees

Levee	Reach	Side	Levee Height	Levee Length	Expected Level of Protection	ANCOLD Hazard Rating	Consequences of Failure	Melway Reference
Watsonia Drain Levee	Austin Radiation Protection & Nuclear Safety Agency, Plenty Road, Yallambie	Across Drain at transition from open channel to underground drain	Unavailable	70m	Unavailable	Significant	5 Houses in flow path along Yallambie Road	20 J8

Table C2.12 – Melbourne Water Levees in the Plenty River Catchment in the City of Banyule

Sewerage Infrastructure

Sewerage Infrastructure of note during a severe flood event located around Plenty River is contained within the following table. A number of properties around Lower Plenty, Viewbank and Montmorency contain septic tanks (are unsewered). Consider this when conducting a risk assessment in the area. These properties are shown on **Map C** in **Appendix F.**

Sewer Emergency Relief Points

On Drain / Waterway	Bank / Side of Waterway	Location	Melway Reference
Plenty River	Eastern	Cleveland Wetlands, Lakeside Drive, Lower Plenty	20 K11

Table C2.13 – Sewer Emergency Relief Points in the Plenty River Catchment in the City of Banyule

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 Management Plan. During significant events, VICSES will conduct incident management using multi- agency resources.

Flood Impacts and Operational Considerations (Intelligence Cards)

The tables on the following pages provide a breakdown of the possible consequences of flooding along the Plenty River and its Stormwater Tributaries at various river heights or rain totals within the City of Banyule. 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:

- Plenty River at Greensborough
- Plenty River at Lower Plenty
- Plenty River's Stormwater Tributaries

FLOOD INTELLIGENCE CARD – GREENSBOROUGH GAUGE, PLENTY RIVER

Version 4 – June 2020

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. ***Scan the QR code for the current levels for this gauge.***

LOCATION:	**East bank of River along the Maroondah Aqueduct, Greensborough**
WEBSITE:	https://www.melbournewater.com.au/water/rainfall-and-river-levels#/reader/229615A
STREAM:	**Plenty River**
GAUGE NUMBER:	**229615A**
GAUGE ZERO:	**39.97m AHD**
GAUGE TYPE:	**Stream Level & Rain**

MELWAY REFERENCE:	**10 J9**
MINOR:	**Not Established**
MODERATE:	**Not Established**
MAJOR:	**Not Established**
LEVEE HEIGHT:	**N/A**
HIGHEST RECORDED FLOOD:	**7.77m (14th May 1974)**

River Height	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
4.6m	20% AEP (5yr ARI) Flood Level	**Community Infrastructure Flooded** • Floodwaters start breaking banks downstream along neighbouring parkland	
5.0m	10% AEP (10yr ARI) Flood Level	**Community Infrastructure Flooded** • Plenty River Trail flooded at various locations **Water Over Road** • Para Road, Greensborough at Plenty River crossing	VICSES State and Region to provide warnings to the community and other agencies. VICSES will provide warnings using OSOM and SMSER as required based on the predications provided by BoM regarding flood levels and the risk of Flash Flooding. The North West Metro Regional Duty Officer in conjunction with the Regional Agency Commander will maintain operational awareness and form an appropriate response arrangement to suit the level of incident.
5.15m	9th November 1971 Flood Level Peak	**Event Summary** • Para Road, Greensborough closed to traffic at Plenty River crossing	
7.7m	1% AEP (100yr ARI) Flood Level	**Properties at Flood Risk** **45 Properties in Total** • 6, 8, 10, 11, 12, 14, 16 & 18 Bicton Street, Greensborough • 3, 1/4 & 2/4 Currawong Lane, Greensborough • 1 Diamond Creek Road, Greensborough • 78 & 82 Gladstone Road, Briar Hill • 3, 5, 7, 9, 11, 15, 17, 19, 21, 23 & 25 Greenmeyer Court, Greensborough	SES to respond to RFA's on a case by case basis

River Height	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		• 1, 9-13, 17, 19 & 21 Joyce Avenue, Greensborough • 2 Kalparrin Avenue, Greensborough • 201-209, 227 & 227A Para Road, Greensborough • 36 Paterson Crescent, Greensborough • 26, 54 & 56 Poulter Avenue, Greensborough • 5, 7, 8, 10, 12- & 14-Rand Street, Greensborough • 2/27 Simms Road, Greensborough **Community Infrastructure Flooded** • Joyce Avenue Children's Centre, 1 Joyce Avenue, Greensborough • Willinda Park Athletics Track, Beatrix Street, Greensborough • Whatmough Park, Kalparrin Avenue, Greensborough • Pedestrian Bridges at Kalparrin Avenue, Whatmough Park, Currawong Lane, Rand Street, George Court & Simms Road, Briar Hill flooded • Poulter Avenue Reserve, Pope Place, Greensborough • Montmorency Secondary College, Simms Road, Montmorency • Montmorency Football & Tennis Clubs, Dobson Road, Montmorency **Essential Infrastructure Likely Impacted** • Bus Routes 293, 901 & 902 impacted if Para Road Flooded **Water Over Road (over 300mm depth)** • Currawong Lane, Greensborough • Rand Street, Greensborough • Kalparrin Avenue, Greensborough • Joyce Avenue, Greensborough • Dobson Road, Montmorency	College to invoke emergency evacuation plan if required Council to setup road closure signage as required
7.77m	14th May 1974 Flood Level Peak	**Event Summary** • Properties on Bicton St, Rand St, Currawong La, Pope Pl, Gladstone Rd & Joyce Ave flooded • Para Rd closed to traffic at Plenty River crossing • Properties on Longs Rd, Maida Ct & Towyn Cl flooded • Greensborough Park & Watmough Park flooded	SES to respond to RFA's on a case by case basis
8.0m	Bank Full Level at Gauging Station	• Flooding already affecting areas downstream. Flooding may now begin to impact areas around gauging station.	

Table C1.14 – Breakdown of likely consequences at various Greensborough gauge level heights along the Plenty River with operational considerations

FLOOD INTELLIGENCE CARD – LOWER PLENTY GAUGE, PLENTY RIVER

Version 4 – June 2020

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. ***Scan the QR code for the current levels for this gauge.***

LOCATION:	**East bank of River on Northern side of Main Road, Lower Plenty**
WEBSITE:	https://www.melbournewater.com.au/water/rainfall-and-river-levels#/reader/229614A
STREAM:	**Plenty River**
GAUGE NUMBER:	**229614A**
GAUGE ZERO:	**19.126m AHD**
GAUGE TYPE:	**Stream Level & Rain**

MELWAY REFERENCE:	**20 K9**
MINOR:	**5.0m**
MODERATE:	**6.6m**
MAJOR:	**7.2m**
LEVEE HEIGHT:	**N/A**
HIGHEST RECORDED FLOOD:	**7.24m (14th May 1974)**

River Height	Flood Class or Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		• Note that inflows from Watsonia Drain south of Main Rd will affect Plenty River levels downstream of Gauge	
5.0m	**MINOR FLOOD LEVEL**	**Community Infrastructure Flooded** • Plenty River trail flooded at various locations upstream of gauge • Main Yarra Trail on either side of Plenty River becomes flooded	
6.3m		• Bank Full Level at Gauge Location	
6.6m	**MODERATE FLOOD LEVEL**	**Community Infrastructure Flooded** • Plenty River trail flooded at various locations either side of gauge • Rosanna Golf Club, Cleveland Avenue, Lower Plenty starts flooding **Water Over Road (over 300mm depth)** • Henty Road, Lower Plenty at Plenty River Crossing	
7.2m	**MAJOR FLOOD LEVEL**		
7.24m	14th May 1974 Flood Level Peak		

River Height	Flood Class or Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
7.4m	1% AEP (100yr ARI) Flood Level (Major)	**Properties at Flood Risk** **12 Properties in Total** • 58 Cleveland Avenue, Lower Plenty • 4 Henty Road, Lower Plenty • 20, 22 & 24 Longs Road, Lower Plenty • 2, 4, 6, 8, 10 & 11 Maida Court, Lower Plenty • 109 Para Road, Montmorency **Community Infrastructure Flooded** • Yallambie Park & Tennis Courts, Kardinia Drive, Yallambie • Heidelberg Golf Club, Main Road, Lower Plenty • Pedestrian bridges over Plenty River flooded at Heidelberg Golf Club **Essential Infrastructure Impacted** • A Sewer Emergency Relief Point is located within floodwaters in the Cleveland Wetlands, Lakeside Drive, Lower Plenty	SES to respond to RFA's on a case by case basis Council to setup road closure signage as required VICSES to liaise with SeW and EPA to monitor possibility of contamination entering flood waters

Table C1.15 – Breakdown of likely consequences at various Lower Plenty gauge level heights along the Plenty River with operational considerations

FLOOD INTELLIGENCE CARD – PLENTY RIVER TRIBUTARIES (UNGAUGED)

Version 4 – June 2020

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. ***Scan the QR code for the current levels for this gauge.***

CLOSEST RAIN GAUGE:	**Viewbank AWS (BoM)**
LOCATION:	**Cnr Country Lane and Banyule Road, Viewbank**
WEBSITE:	http://www.bom.gov.au/places/vic/melbourne/observations/viewbank/

MELWAY REF:	**20 H12**
GAUGE NUMBER:	**86068**
GAUGE TYPE:	**Rain**

Design Rainfall Depths (mm) – *Indication of Possible Flooding*	**Annual Exceedance Probability (% AEP)**	**Consequence / Impact**	**Operational Considerations**
22mm in 10 mins; 36mm in 30 mins; 46mm in 1 hour; 59mm in 2 hours; 68mm in 3 hours; or 85mm 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)	• Note: It is not known at what level infrastructure contained below starts being flooded **Properties at Flood Risk** **387 Properties in Total** **Beatrix Street Drain** • 110, 111, 112 & 114 Delta Road, Greensborough • 5/157-159 & 165 Henry Street, Greensborough • 22, 22A & 24 Kardinia Street, Watsonia • 11 Lyell Parade, Greensborough • 25 & 27 Medbury Avenue, Watsonia • 40, 56 & 58 Medbury Avenue, Greensborough • 5/91, 6/91, 3/93, 102 & 104 Nell Street, Greensborough • 5A, 5, 7, 9, 11, 15 & 17 Shaylor Court, Greensborough **Castleton Road Drain** • 2 & 3 Attwood Court, Viewbank • 22 Broadlea Crescent, Viewbank • 72, 80, 82 & 84 Castleton Road, Viewbank • 165 Martins Lane, Viewbank • 4 Rainsford Place, Viewbank • 1, 2, 4 & 36 Sherlowe Crescent, Viewbank • 11 The Glade, Viewbank **Cleveland Avenue Drain** • 31 Cleveland Avenue, Lower Plenty	SES to respond to RFA's on a case by case basis

Design Rainfall Depths (mm) – *Indication of Possible Flooding*	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		Diamond Creek Rd Drain • 41, 43 & 45 Avandina Crescent, Greensborough • 1 & 5/82-84 Diamond Creek Road, Greensborough • 1 Keswick Glen, Greensborough **Kempston St Drain** • 1, 3, 20 & 22 Boyd Street, Greensborough • 45, 47, 49, 57, 59 & 61 Kempston Street, Greensborough • 9 Laura Court, Greensborough **Local Drainage** • 3 Adina Court, Yallambie • 19 Alban Street, Montmorency • 3/31, 4/31, 7/31, 8/31 & 34 Alexander Street, Montmorency • 64 Allima Avenue, Yallambie • 7/18, 8/18, 6/22, 7/22 & 54A Alma Street, Lower Plenty • 17, 19, 21, 23, 25 & 27 Amaroo Way, Yallambie • 26, 29 & 31 Astley Street, Montmorency • 28, 33, 35, 37, 39 & 1/41 Bannerman Avenue, Greensborough • 17 & 26A Beattie Street, Montmorency • 2/3, 5, 1/7, 2/7, 9, 11, 13 & 2/15 Bungay Street, Watsonia • 1, 3, 19, 21, 23, 25, 27, 29 & 31 Byron Avenue, Lower Plenty • 29 Edwards Street, Lower Plenty • 28 & 30 Elonera Avenue, Yallambie • 166 Grimshaw Street, Greensborough • 95, 97 & 98 Henry Street, Greensborough • 24 High Street, Watsonia • 29 & 32 Hoban Avenue, Montmorency • 6, 7 & 8 Inala Court, Yallambie • 7 James Street, Montmorency • 3 & 4 Kett Street, Lower Plenty • 4 Kiama Close, Montmorency • 4, 1/6 & 2/6 Knight Street, Watsonia • 10 & 12 Lincoln Drive, Lower Plenty • 2/20, 3/22, 24, 26, 2/28, 3/28, 1/30, 2/30, 32, 34 & 36 Lorimer Street, Greensborough • 1, 3, 5, 7 & 9 Lowan Avenue, Yallambie • 22 Lynwood Crescent, Lower Plenty • 123, 133, 135, 5/141, 6/141, 8/141, 9/141, 146, 150, 2/151, 3/151, 2/155, 2/157, 2/159, 3/159, 3/161, 2/165, 4/169, 5/169, 3/179, 3/183 & 185 Main Road, Lower Plenty • 1 Maskell Crescent, Lower Plenty • 5 Meagher Street, Watsonia • 20 Montrose Street, Montmorency	VICSES to monitor Levee where possible Council to setup road closure signage as required

Design Rainfall Depths (mm) – *Indication of Possible Flooding*	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		• 3, 4 & 5 Moola Close, Yallambie • 250, 251 & 253 Nell Street, Watsonia • 156, 158, 179, 181 & 183 Nepean Street, Greensborough • 3, 4, 5 & 6-8 Nokes Court, Montmorency • 2, 4 & 6 Palara Court, Montmorency • 6/60, 7/60, 1/64, 2/64, 3/64, 4/64, 5/64 & 6/64 Para Road, Montmorency • 2/16 & 2/18 Princes Street, Watsonia • 2/2 Reeves Street, Watsonia • 17A Riverview Road, Montmorency • 3, 5, 7, 9, 11, 15, 2/17, 19, 21, 23, 2/25, 27 & 29 Rushworth Street, Watsonia • 4/50, 5/50, 6/50, 7/50, 8/50, 9/50, 10/50, 11/50 & 12/50 Scotland Avenue, Greensborough • 34 Station Road, Montmorency • 7, 9 & 10 Strickland Court, Greensborough • 4, 39, 41, 50 & 94 Tarcoola Drive, Yallambie • 2, 4, 4A, 6, 8 & 9 Taree Place, Yallambie • 3, 4 & 6 Terrara Court, Montmorency • 11 & 12 Tonyl Court, Greensborough • 4 Victoria Street, Greensborough • 3/140, 4/140, 141 & 143 Watsonia Road, Watsonia • 2/4, 2/6, 2/12, 14, 16, 18 & 20 Weatherlake Street, Watsonia **Watsonia Drain** • 2, 4, 6, 8, 10 & 12 Albany Court, Macleod • 11, 12, 14 & 15 Clara Street, Macleod • 8 & 1/10 Cooinda Crescent, Watsonia • 11 Delta Road, Greensborough • 57, 1/59, 2/59, 3/59, 61 & 63 Elder Street, Watsonia • 14 & 16 Frensham Road, Macleod • 59 & 61 Frensham Road, Watsonia • 12 & 74 Gabonia Avenue, Watsonia • 38, 40, 42, 44, 46, 48, 50, 52, 76, 78, 80, 82, 84, 1/93, 2.93 & 2/102 Harborne Street, Macleod • 1, 2, 14 & 15 Hedline Place, Macleod • 22 & 24 Janice Street, Macleod • 2, 3, 16 & 17 Jennifer Court, Macleod • 22 & 24 Kentwood Road, Macleod • 1/2, 2/2 & 3/2 Old Lower Plenty Road, Viewbank • 11, 15, 55 & 57 Orana Drive, Watsonia • 16-18 & 19 Pavey Court, Macleod • 1, 3, 5, 7 & 9 Rasheda Street, Watsonia • 8 Saul Court, Greensborough	

Design Rainfall Depths (mm) – *Indication of Possible Flooding*	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		• 384 & 386 Service Road, Watsonia • 7, 8, 9 & 11 Stephanie Court, Macleod • 17 & 19 Wilkinson Street, Macleod • 2, 3, 4 & 5 Woodlands Rise, Macleod • 2/145 & 147 Yallambie Road, Macleod • 348, 352 & 354 Yallambie Road, Yallambie **Yando St Drain** • 12, 27 & 29 Anderson Parade, Bundoora • 14 Atkins Avenue, Watsonia North • 8 & 12 Bawden Close, Watsonia North • 7 Bentley Court, Watsonia North • 1 Byrne Crescent, Watsonia North • 144 & 146 Cameron Parade, Bundoora • 1, 3 & 5 Dendaryl Drive, Bundoora • 24, 26 & 34 Donach Crescent, Bundoora • 5 Glennden Court, Bundoora • 27, 34, 36, 38 & 41 Grant Street, Watsonia North • 362 & 364 Grimshaw Street, Bundoora • 21, 25, 2/27, 35, 37, 39, 41 & 43 Hakea Street, Watsonia North • 91 & 128 Macorna Street, Watsonia North • 25, 27 & 29 Michelle Avenue, Watsonia North • 9/7-13 Pinehills Drive, Greensborough • 41, 43, 45, 47, 49 & 51 Sharpes Road, Watsonia North • 16 & 18 Sussex Street, Bundoora • 2/12 & 3/12 Yando Street, Greensborough **Community Infrastructure Likely Flooded** **Local Drainage** • Grace Park Preschool, 179 Nepean Street, Greensborough **Lower Plenty Drain** • Banksia Place (Aged Care), 123 Main Road, Lower Plenty • Lower Plenty Scout Group Hall, 10 Para Road, Lower Plenty **Yando Street Drain** • Binnak Park, Anderson Parade, Watsonia North **Essential Infrastructure Impacted** **Watsonia Drain** • Levee Bank located at Austin Radiation Protection & Nuclear Safety Agency, Lower Plenty Road, Viewbank. Unknown at what height levee will be overtopped. **Water Over Road (over 300mm depth)** **Diamond Creek Road Drain** • Avandina Crescent, Greensborough • Diamond Creek Road, Greensborough north of St Helena Road	

Design Rainfall Depths (mm) – *Indication of Possible Flooding*	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		Yando Street Drain • Anderson Parade, Bundoora • Cameron Parade, Bundoora • Grant Street, Watsonia North • Hakea Street, Watsonia North • Lawson Court, Watsonia North • Knight Street, Watsonia • Kempston Street, Greensborough **Watsonia Drain** • Garbonia Avenue, Macleod near Harborne Street • Harborne Street, Macleod at Kentwood Road • Woodlands Rise, Macleod • Yallambie Road, Yallambie between Woodlands Rise & Wendover Place **Castleton Road Drain** • Castleton Road, Viewbank • The Glade, Viewbank **Cleveland Avenue Drain** • Cleveland Avenue, Lower Plenty near Henty Road intersection	

Table C1.16 – Breakdown of possible consequences at various rainfall intensities along Plenty River's Stormwater Tributaries with operational considerations

APPENDIX C3 – DAREBIN CREEK FLOOD EMERGENCY PLAN

Overview of Flooding Consequences

Darebin Creek and the surrounding suburbs of Bundoora, Heidelberg West, Bellfield & Ivanhoe are located approximately 14km North East of Melbourne in a mixed area of residential and industrial properties. Darebin Creek being a prominent watercourse in the area, flows from the north through the Shire of Whittlesea.

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 Darebin Creek in Banyule					
Property					
Properties	**3**				
Residential	3				
Commercial	0				
Industrial	0				
Public Land	0				
Rural	0				
Community Infrastructure					
Essential Infrastructure					
Sewerage Facilities	1	Emergency Relief Point			
Tourism / Recreation					
Recreation Facilities	2	Darebin Creek Trail; & Sparks Reserve			
Government Boundaries					
Local Gov't Areas	1	Banyule	CMA	1	Port Phillip & Westernport
Adjacent LGAs	2	Darebin & Yarra	CFA District	0	
SES Resp' Boundary	1	Northcote	FRV District	1	Northcote

Table C3.1 – Consequence Summary of 1% AEP flood along Darebin Creek

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 Darebin Creek's Stormwater Tributaries					
Property					
Properties	**729**				
Residential	643				
Commercial	0				
Industrial	78				
Public Land	8				
Rural	0				
Community Infrastructure					
Community Venues	2	Scout Halls			
Essential Infrastructure					
Major Roads	3	Grimshaw St; Plenty Rd; & Southern Rd			
Government Buildings	1	Municipal Depot			
Sewerage Facilities	3	Emergency Relief Points			
Drainage Facilities	2	Retarding Basins			
Tourism / Recreation					
Sports Facilities	0		Caravan Parks	0	
Recreation Facilities	1	Bicycle Trail	Camping Grounds	0	
Government Boundaries					
Local Gov't Areas	1		CMA	1	Port Phillip & Westernport
Adjacent LGAs	0		CFA District	0	
SES Resp' Boundary	2	Northcote & Nillumbik	FRV District	1	Northern

Table C3.2 – Consequence Summary of 1% AEP flood along Darebin Creek's Stormwater Tributaries

Gauges and Warnings

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

Gauge	Station No.	Location	Stream Level & Flow Gauge	Rain Gauge	Melway Reference
Darebin Creek at Epping	229613A	West bank of Creek on north side of Rufus St Bridge	✓	✓	182D11
Darebin Creek at Bundoora	229612A	South bank of Creek in Norris Bank Reserve, northern side of Settlement Road	✓	✓	9F12
Darebin Creek at Bell St, Ivanhoe	229403A	West bank of creek, northern side of Bell Street Bridge, Preston	✓	✓	31 C2

Table C3.3 – Hydrographic Monitoring Stations within the Darebin 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.

Area Map of Flood Risk within Darebin Creek catchment

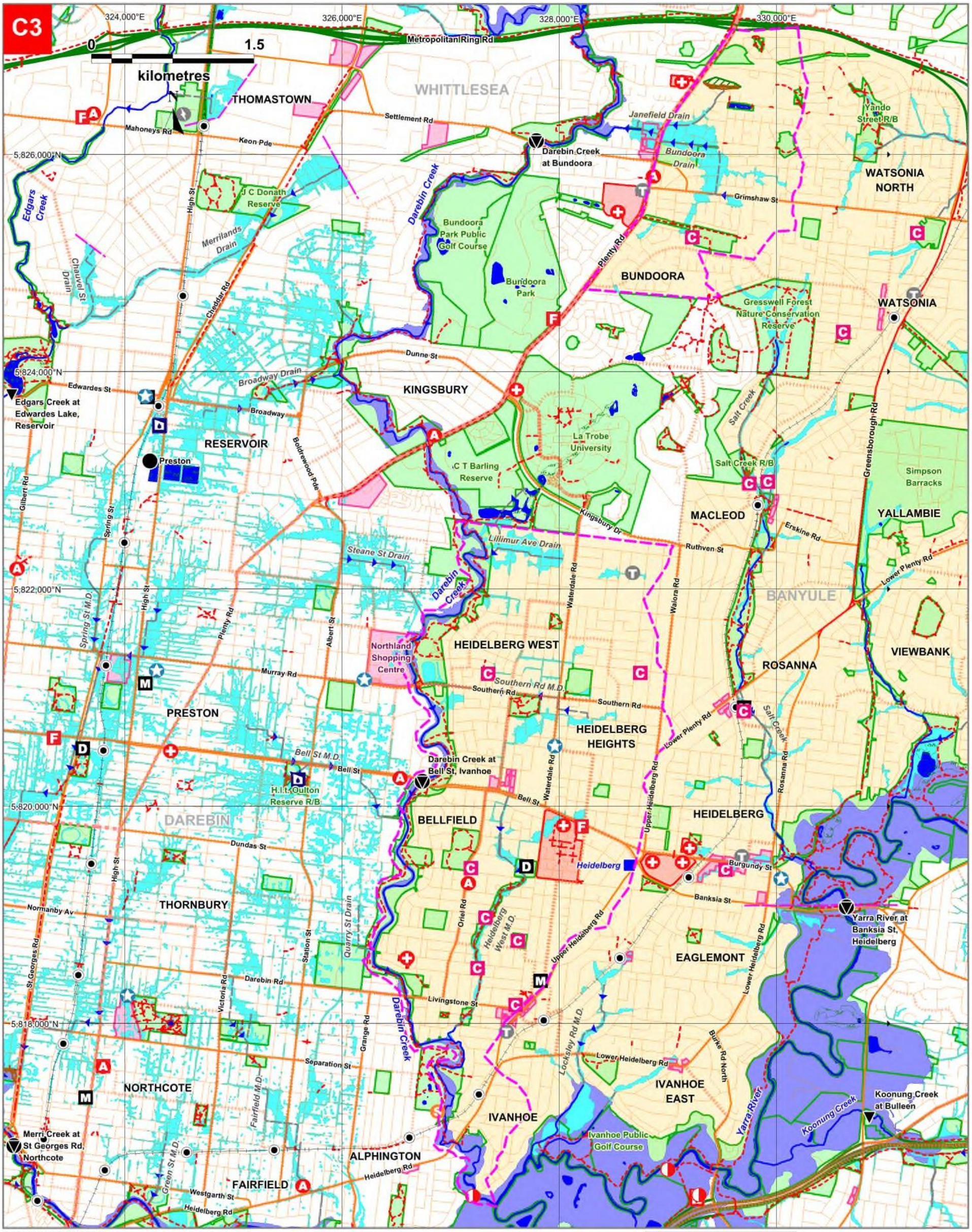


Figure C3 – Areas of flood risk around Darebin Creek in the City of Banyule and area covered in this Appendices

Properties at Flood Risk

Properties listed in the table below are at risk from flooding along Darebin Creek in Banyule during a 1% AEP event. As more intelligence becomes available, this list may change. This table has been populated based on modelling work as part of the Darebin Creek (Melbourne Water October 2008) 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 Darebin Creek during a 1% AEP event in Banyule				
Residential	**Commercial**	**Industrial**	**Rural**	**Public Use**

Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
21	Riverside Road	Ivanhoe	Darebin Creek	Riverine
25	Riverside Road	Ivanhoe	Darebin Creek	Riverine
1	Willowbank Grove	Ivanhoe	Darebin Creek	Riverine

Total
3

Table C3.4 – Properties at risk of flooding along Darebin Creek catchment in the City of Banyule

Properties listed in the table below are at risk from flooding around Darebin Creek's Stormwater Tributaries in Banyule 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 Bundoora Drain (Melbourne Water, April 2008), the Banyule Drainage Survey 1996/97 (CMPS&F, February 1998) and the Development of the Special Building Overlay (Engeny, June 2017) 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 Darebin Creek's Stormwater Tributaries during a 1% AEP event				
Residential	**Commercial**	**Industrial**	**Rural**	**Public Use**

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
2	Aileen Avenue	Heidelberg West	Local Drainage	Flash
32	Ailsa Grove	Ivanhoe	Heidelberg West Main Drain	Flash
33	Ailsa Grove	Ivanhoe	Heidelberg West Main Drain	Flash
2	Alfred Court	Bundoora	Bundoora Drain	Flash
3	Alfred Court	Bundoora	Bundoora Drain	Flash
5	Alfred Court	Bundoora	Bundoora Drain	Flash
6	Alfred Court	Bundoora	Bundoora Drain	Flash
7	Alfred Court	Bundoora	Bundoora Drain	Flash
8	Alfred Court	Bundoora	Bundoora Drain	Flash
9	Alfred Court	Bundoora	Bundoora Drain	Flash
126	Altona Street	Heidelberg West	Southern Rd Main Drain	Flash
128	Altona Street	Heidelberg West	Southern Rd Main Drain	Flash
130	Altona Street	Heidelberg West	Southern Rd Main Drain	Flash

Properties at risk from Flooding along Darebin Creek's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
132	Altona Street	Heidelberg West	Southern Rd Main Drain	Flash
134	Altona Street	Heidelberg West	Southern Rd Main Drain	Flash
5	Ashdown Court	Bundoora	Bundoora Drain	Flash
6	Ashdown Court	Bundoora	Bundoora Drain	Flash
7	Ashdown Court	Bundoora	Bundoora Drain	Flash
8	Ashdown Court	Bundoora	Bundoora Drain	Flash
4/8	Balaka Place	Bundoora	Bundoora Drain	Flash
5/8	Balaka Place	Bundoora	Bundoora Drain	Flash
197	Banksia Street	Ivanhoe	Heidelberg West Main Drain	Flash
199	Banksia Street	Ivanhoe	Heidelberg West Main Drain	Flash
201	Banksia Street	Ivanhoe	Heidelberg West Main Drain	Flash
1/174	Bell Street	Heidelberg Heights	Local Drainage	Flash
2/174	Bell Street	Heidelberg Heights	Local Drainage	Flash
3/174	Bell Street	Heidelberg Heights	Local Drainage	Flash
4/174	Bell Street	Heidelberg Heights	Local Drainage	Flash
180	Bell Street	Heidelberg Heights	Local Drainage	Flash
184	Bell Street	Heidelberg Heights	Local Drainage	Flash
60	Bent Street	Bundoora	Bundoora Drain	Flash
5	Bingham Court	Bundoora	Bundoora Drain	Flash
6	Bingham Court	Bundoora	Bundoora Drain	Flash
7	Bingham Court	Bundoora	Bundoora Drain	Flash
8	Bingham Court	Bundoora	Bundoora Drain	Flash
9	Bingham Court	Bundoora	Bundoora Drain	Flash
42A	Bonar Street	Heidelberg Heights	Southern Rd Main Drain	Flash
42B	Bonar Street	Heidelberg Heights	Southern Rd Main Drain	Flash
44	Bonar Street	Heidelberg Heights	Southern Rd Main Drain	Flash
46	Bonar Street	Heidelberg Heights	Southern Rd Main Drain	Flash
48	Bonar Street	Heidelberg Heights	Southern Rd Main Drain	Flash
50	Bonar Street	Heidelberg Heights	Southern Rd Main Drain	Flash
52	Bonar Street	Heidelberg Heights	Southern Rd Main Drain	Flash
1/54	Bonar Street	Heidelberg Heights	Southern Rd Main Drain	Flash
2/54	Bonar Street	Heidelberg Heights	Southern Rd Main Drain	Flash
56	Bonar Street	Heidelberg Heights	Southern Rd Main Drain	Flash
54	Bond Street	Ivanhoe	Heidelberg West Main Drain	Flash
56	Bond Street	Ivanhoe	Heidelberg West Main Drain	Flash
57	Bond Street	Ivanhoe	Heidelberg West Main Drain	Flash
61	Bond Street	Ivanhoe	Heidelberg West Main Drain	Flash
1	Bowen Court	Bundoora	Bundoora Drain	Flash
2	Bowen Court	Bundoora	Bundoora Drain	Flash
1	Cambridge Way	Bundoora	Bundoora Drain	Flash
2	Cambridge Way	Bundoora	Bundoora Drain	Flash
3	Cambridge Way	Bundoora	Bundoora Drain	Flash
4	Cambridge Way	Bundoora	Bundoora Drain	Flash
5	Cambridge Way	Bundoora	Bundoora Drain	Flash

Properties at risk from Flooding along Darebin Creek's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
6	Cambridge Way	Bundoora	Bundoora Drain	Flash
8	Cambridge Way	Bundoora	Bundoora Drain	Flash
10	Cambridge Way	Bundoora	Bundoora Drain	Flash
7	Cameron Parade	Bundoora	Bundoora Drain	Flash
9	Cameron Parade	Bundoora	Bundoora Drain	Flash
15	Cameron Parade	Bundoora	Bundoora Drain	Flash
17	Cameron Parade	Bundoora	Bundoora Drain	Flash
18	Cameron Parade	Bundoora	Bundoora Drain	Flash
19	Cameron Parade	Bundoora	Bundoora Drain	Flash
20	Cameron Parade	Bundoora	Bundoora Drain	Flash
21	Cameron Parade	Bundoora	Bundoora Drain	Flash
22	Cameron Parade	Bundoora	Bundoora Drain	Flash
23	Cameron Parade	Bundoora	Bundoora Drain	Flash
24	Cameron Parade	Bundoora	Bundoora Drain	Flash
25	Cameron Parade	Bundoora	Bundoora Drain	Flash
26	Cameron Parade	Bundoora	Bundoora Drain	Flash
27	Cameron Parade	Bundoora	Bundoora Drain	Flash
28	Cameron Parade	Bundoora	Bundoora Drain	Flash
29	Cameron Parade	Bundoora	Bundoora Drain	Flash
30	Cameron Parade	Bundoora	Bundoora Drain	Flash
31	Cameron Parade	Bundoora	Bundoora Drain	Flash
32	Cameron Parade	Bundoora	Bundoora Drain	Flash
33	Cameron Parade	Bundoora	Bundoora Drain	Flash
34	Cameron Parade	Bundoora	Bundoora Drain	Flash
35	Cameron Parade	Bundoora	Bundoora Drain	Flash
36	Cameron Parade	Bundoora	Bundoora Drain	Flash
37	Cameron Parade	Bundoora	Bundoora Drain	Flash
38	Cameron Parade	Bundoora	Bundoora Drain	Flash
38A	Cameron Parade	Bundoora	Bundoora Drain	Flash
39	Cameron Parade	Bundoora	Bundoora Drain	Flash
40	Cameron Parade	Bundoora	Bundoora Drain	Flash
41	Cameron Parade	Bundoora	Bundoora Drain	Flash
42	Cameron Parade	Bundoora	Bundoora Drain	Flash
43	Cameron Parade	Bundoora	Bundoora Drain	Flash
44	Cameron Parade	Bundoora	Bundoora Drain	Flash
3	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
4	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
5	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
6	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
7	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
8	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
9	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
10	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
11	Chaucer Crescent	Bundoora	Bundoora Drain	Flash

Properties at risk from Flooding along Darebin Creek's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
12	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
14	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
15	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
16	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
17	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
19	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
20	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
21	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
22	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
23	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
24	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
25	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
26	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
27	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
28	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
29	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
30	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
31	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
32	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
33	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
35	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
37	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
39	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
41	Chaucer Crescent	Bundoora	Bundoora Drain	Flash
1	Cranwell Court	Bundoora	Bundoora Drain	Flash
2	Cranwell Court	Bundoora	Bundoora Drain	Flash
3	Cranwell Court	Bundoora	Bundoora Drain	Flash
4	Cranwell Court	Bundoora	Bundoora Drain	Flash
5	Cranwell Court	Bundoora	Bundoora Drain	Flash
6	Cranwell Court	Bundoora	Bundoora Drain	Flash
7	Cranwell Court	Bundoora	Bundoora Drain	Flash
8	Cranwell Court	Bundoora	Bundoora Drain	Flash
9	Cranwell Court	Bundoora	Bundoora Drain	Flash
10	Cranwell Court	Bundoora	Bundoora Drain	Flash
11	Cranwell Court	Bundoora	Bundoora Drain	Flash
8	Culverlands Street	Heidelberg West	Local Drainage	Flash
14	Culverlands Street	Heidelberg West	Local Drainage	Flash
5	Cypress Street	Heidelberg West	Southern Rd Main Drain	Flash
7	Cypress Street	Heidelberg West	Southern Rd Main Drain	Flash
9	Cypress Street	Heidelberg West	Southern Rd Main Drain	Flash
11A	Cypress Street	Heidelberg West	Southern Rd Main Drain	Flash
1	Daphne Crescent	Bellfield	Heidelberg West Main Drain	Flash
2	Daphne Crescent	Bellfield	Heidelberg West Main Drain	Flash
7	Decathlon Street	Bundoora	Local Drainage	Flash

Properties at risk from Flooding along Darebin Creek's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
8	Decathlon Street	Bundoora	Local Drainage	Flash
7	Dudley Street	Ivanhoe	Heidelberg West Main Drain	Flash
9	Dudley Street	Ivanhoe	Heidelberg West Main Drain	Flash
11	Dudley Street	Ivanhoe	Heidelberg West Main Drain	Flash
13A	Dudley Street	Ivanhoe	Heidelberg West Main Drain	Flash
3/15	Dudley Street	Ivanhoe	Heidelberg West Main Drain	Flash
4/19	Dudley Street	Ivanhoe	Heidelberg West Main Drain	Flash
3/21	Dudley Street	Ivanhoe	Heidelberg West Main Drain	Flash
3	Edro Court	Bundoora	Local Drainage	Flash
4	Edro Court	Bundoora	Local Drainage	Flash
69	Edwin Street	Heidelberg Heights	Local Drainage	Flash
71	Edwin Street	Heidelberg Heights	Local Drainage	Flash
73	Edwin Street	Heidelberg Heights	Local Drainage	Flash
75	Edwin Street	Heidelberg Heights	Local Drainage	Flash
77	Edwin Street	Heidelberg Heights	Local Drainage	Flash
25	Elliott Street	Heidelberg Heights	Southern Rd Main Drain	Flash
27	Elliott Street	Heidelberg Heights	Southern Rd Main Drain	Flash
29	Elliott Street	Heidelberg Heights	Southern Rd Main Drain	Flash
31	Elliott Street	Heidelberg Heights	Southern Rd Main Drain	Flash
35	Elliott Street	Heidelberg Heights	Southern Rd Main Drain	Flash
2	Farnham Court	Bundoora	Bundoora Drain	Flash
3	Farnham Court	Bundoora	Bundoora Drain	Flash
4	Farnham Court	Bundoora	Bundoora Drain	Flash
5	Farnham Court	Bundoora	Bundoora Drain	Flash
6	Farnham Court	Bundoora	Bundoora Drain	Flash
7	Farnham Court	Bundoora	Bundoora Drain	Flash
6	Flannery Avenue	Bundoora	Local Drainage	Flash
8	Flannery Avenue	Bundoora	Local Drainage	Flash
10	Flannery Avenue	Bundoora	Local Drainage	Flash
12	Flannery Avenue	Bundoora	Local Drainage	Flash
14	Flannery Avenue	Bundoora	Local Drainage	Flash
42	Flannery Avenue	Bundoora	Local Drainage	Flash
50	Flannery Avenue	Bundoora	Local Drainage	Flash
52	Flannery Avenue	Bundoora	Local Drainage	Flash
5/42-44	Ford Street	Ivanhoe	Heidelberg West Main Drain	Flash
46B	Ford Street	Ivanhoe	Heidelberg West Main Drain	Flash
46A	Ford Street	Ivanhoe	Heidelberg West Main Drain	Flash
47	Ford Street	Ivanhoe	Heidelberg West Main Drain	Flash
48	Ford Street	Ivanhoe	Heidelberg West Main Drain	Flash
48	Ford Street	Ivanhoe	Heidelberg West Main Drain	Flash
49	Ford Street	Ivanhoe	Heidelberg West Main Drain	Flash
57	Ford Street	Ivanhoe	Heidelberg West Main Drain	Flash
12	Garth Street	Ivanhoe	Heidelberg West Main Drain	Flash
14	Garth Street	Ivanhoe	Heidelberg West Main Drain	Flash

Properties at risk from Flooding along Darebin Creek's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
6	Glenara Court	Bundoora	Bundoora Drain	Flash
7	Glenara Court	Bundoora	Bundoora Drain	Flash
35	Green Street	Ivanhoe	Heidelberg West Main Drain	Flash
36	Green Street	Ivanhoe	Heidelberg West Main Drain	Flash
37	Green Street	Ivanhoe	Heidelberg West Main Drain	Flash
2/38	Green Street	Ivanhoe	Heidelberg West Main Drain	Flash
32	Greenwood Drive	Bundoora	Local Drainage	Flash
34	Greenwood Drive	Bundoora	Local Drainage	Flash
494	Grimshaw Street	Bundoora	Bundoora Drain	Flash
496	Grimshaw Street	Bundoora	Bundoora Drain	Flash
498	Grimshaw Street	Bundoora	Bundoora Drain	Flash
500	Grimshaw Street	Bundoora	Bundoora Drain	Flash
502	Grimshaw Street	Bundoora	Bundoora Drain	Flash
504	Grimshaw Street	Bundoora	Bundoora Drain	Flash
505	Grimshaw Street	Bundoora	Bundoora Drain	Flash
506	Grimshaw Street	Bundoora	Bundoora Drain	Flash
507	Grimshaw Street	Bundoora	Bundoora Drain	Flash
508	Grimshaw Street	Bundoora	Bundoora Drain	Flash
509	Grimshaw Street	Bundoora	Bundoora Drain	Flash
510	Grimshaw Street	Bundoora	Bundoora Drain	Flash
511	Grimshaw Street	Bundoora	Bundoora Drain	Flash
512	Grimshaw Street	Bundoora	Bundoora Drain	Flash
513	Grimshaw Street	Bundoora	Bundoora Drain	Flash
514	Grimshaw Street	Bundoora	Bundoora Drain	Flash
515	Grimshaw Street	Bundoora	Bundoora Drain	Flash
531	Grimshaw Street	Bundoora	Bundoora Drain	Flash
533	Grimshaw Street	Bundoora	Bundoora Drain	Flash
535	Grimshaw Street	Bundoora	Bundoora Drain	Flash
537	Grimshaw Street	Bundoora	Bundoora Drain	Flash
539	Grimshaw Street	Bundoora	Bundoora Drain	Flash
1/541	Grimshaw Street	Bundoora	Bundoora Drain	Flash
2/541	Grimshaw Street	Bundoora	Bundoora Drain	Flash
543	Grimshaw Street	Bundoora	Bundoora Drain	Flash
545	Grimshaw Street	Bundoora	Bundoora Drain	Flash
547	Grimshaw Street	Bundoora	Bundoora Drain	Flash
549	Grimshaw Street	Bundoora	Bundoora Drain	Flash
551	Grimshaw Street	Bundoora	Bundoora Drain	Flash
7	Gyra Court	Bundoora	Bundoora Drain	Flash
8	Gyra Court	Bundoora	Bundoora Drain	Flash
9	Gyra Court	Bundoora	Bundoora Drain	Flash
1	Harvard Court	Bundoora	Bundoora Drain	Flash
1/2	Harvard Court	Bundoora	Bundoora Drain	Flash
2/2	Harvard Court	Bundoora	Bundoora Drain	Flash
3	Harvard Court	Bundoora	Bundoora Drain	Flash

Properties at risk from Flooding along Darebin Creek's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
4	Harvard Court	Bundoora	Bundoora Drain	Flash
5	Harvard Court	Bundoora	Bundoora Drain	Flash
6	Harvard Court	Bundoora	Bundoora Drain	Flash
7	Harvard Court	Bundoora	Bundoora Drain	Flash
8	Harvard Court	Bundoora	Bundoora Drain	Flash
10	Harvard Court	Bundoora	Bundoora Drain	Flash
11	Harvard Court	Bundoora	Bundoora Drain	Flash
22	Havelock Avenue	Bundoora	Local Drainage	Flash
24	Havelock Avenue	Bundoora	Local Drainage	Flash
43	Hawker Street	Ivanhoe	Heidelberg West Main Drain	Flash
49	Hawker Street	Ivanhoe	Heidelberg West Main Drain	Flash
51	Hawker Street	Ivanhoe	Heidelberg West Main Drain	Flash
1	Iffley Court	Ivanhoe	Heidelberg West Main Drain	Flash
3	Iffley Court	Ivanhoe	Heidelberg West Main Drain	Flash
5	Iffley Court	Ivanhoe	Heidelberg West Main Drain	Flash
6	Iffley Court	Ivanhoe	Heidelberg West Main Drain	Flash
1/8	Iffley Court	Ivanhoe	Heidelberg West Main Drain	Flash
22	Jellicoe Street	Ivanhoe	Heidelberg West Main Drain	Flash
23	Jellicoe Street	Ivanhoe	Heidelberg West Main Drain	Flash
1/2	Keats Court	Bundoora	Bundoora Drain	Flash
2/2	Keats Court	Bundoora	Bundoora Drain	Flash
3/2	Keats Court	Bundoora	Bundoora Drain	Flash
3	Keats Court	Bundoora	Bundoora Drain	Flash
4	Keats Court	Bundoora	Bundoora Drain	Flash
5	Keats Court	Bundoora	Bundoora Drain	Flash
6	Keats Street	Heidelberg Heights	Southern Rd Main Drain	Flash
8	Keats Street	Heidelberg Heights	Southern Rd Main Drain	Flash
5/27-29	Kenilworth Parade	Ivanhoe	Heidelberg West Main Drain	Flash
31	Kenilworth Parade	Ivanhoe	Heidelberg West Main Drain	Flash
1	Kipling Court	Bundoora	Bundoora Drain	Flash
2	Kipling Court	Bundoora	Bundoora Drain	Flash
3	Kipling Court	Bundoora	Bundoora Drain	Flash
4	Kipling Court	Bundoora	Bundoora Drain	Flash
6	Kipling Court	Bundoora	Bundoora Drain	Flash
7	Kipling Court	Bundoora	Bundoora Drain	Flash
8	Kipling Court	Bundoora	Bundoora Drain	Flash
14	Kipling Court	Bundoora	Bundoora Drain	Flash
15	Kipling Court	Bundoora	Bundoora Drain	Flash
16	Kipling Court	Bundoora	Bundoora Drain	Flash
17	Kipling Court	Bundoora	Bundoora Drain	Flash
18	Kipling Court	Bundoora	Bundoora Drain	Flash
19	Kipling Court	Bundoora	Bundoora Drain	Flash
13	Kokoda Street	Heidelberg West	Southern Rd Main Drain	Flash
15	Kokoda Street	Heidelberg West	Southern Rd Main Drain	Flash

Properties at risk from Flooding along Darebin Creek's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
17	Kokoda Street	Heidelberg West	Southern Rd Main Drain	Flash
19	Kokoda Street	Heidelberg West	Southern Rd Main Drain	Flash
21	Kokoda Street	Heidelberg West	Southern Rd Main Drain	Flash
40	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
1/41	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
2/41	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
3/41	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
4/41	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
4/45	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
5/45	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
1/46	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
2/46	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
3/46	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
4/46	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
5/46	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
49	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
50	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
51	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
52	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
1/54-56	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
2/54-56	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
3/54-56	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
4/54-56	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
55	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
57	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
58	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
59	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
60	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
61	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
65	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
1/67	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
2/67	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
69	Kolora Road	Heidelberg West	Lillimur Ave Drain	Flash
43	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash
44	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash
45	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash
46	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash
47	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash
48	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash
49	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash
50	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash
51	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash
52	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash
53	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash

Properties at risk from Flooding along Darebin Creek's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
54	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash
55	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash
56	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash
57	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash
58	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash
59	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash
60	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash
61	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash
62	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash
63	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash
65	Korong Road	Heidelberg West	Lillimur Ave Drain	Flash
44	Kylta Road	Heidelberg West	Lillimur Ave Drain	Flash
54	Kylta Road	Heidelberg West	Lillimur Ave Drain	Flash
56	Kylta Road	Heidelberg West	Lillimur Ave Drain	Flash
58	Kylta Road	Heidelberg West	Lillimur Ave Drain	Flash
59	Kylta Road	Heidelberg West	Lillimur Ave Drain	Flash
60	Kylta Road	Heidelberg West	Lillimur Ave Drain	Flash
61	Kylta Road	Heidelberg West	Lillimur Ave Drain	Flash
63	Kylta Road	Heidelberg West	Lillimur Ave Drain	Flash
64	Kylta Road	Heidelberg West	Lillimur Ave Drain	Flash
65	Kylta Road	Heidelberg West	Lillimur Ave Drain	Flash
66	Kylta Road	Heidelberg West	Lillimur Ave Drain	Flash
67	Kylta Road	Heidelberg West	Lillimur Ave Drain	Flash
68	Kylta Road	Heidelberg West	Lillimur Ave Drain	Flash
75	Kylta Road	Heidelberg West	Lillimur Ave Drain	Flash
2	Lamb Court	Bundoora	Bundoora Drain	Flash
3	Lamb Court	Bundoora	Bundoora Drain	Flash
4	Lamb Court	Bundoora	Bundoora Drain	Flash
28	Law Street	Heidelberg Heights	Southern Rd Main Drain	Flash
30	Law Street	Heidelberg Heights	Southern Rd Main Drain	Flash
32	Law Street	Heidelberg Heights	Southern Rd Main Drain	Flash
34	Law Street	Heidelberg Heights	Southern Rd Main Drain	Flash
36	Law Street	Heidelberg Heights	Southern Rd Main Drain	Flash
2	Lawrence Court	Bundoora	Bundoora Drain	Flash
3	Lawrence Court	Bundoora	Bundoora Drain	Flash
4	Lawrence Court	Bundoora	Bundoora Drain	Flash
5	Lawrence Court	Bundoora	Bundoora Drain	Flash
6	Lawrence Court	Bundoora	Bundoora Drain	Flash
7	Lawrence Court	Bundoora	Bundoora Drain	Flash
8	Lawrence Court	Bundoora	Bundoora Drain	Flash
9	Lawrence Court	Bundoora	Bundoora Drain	Flash
10	Lawrence Court	Bundoora	Bundoora Drain	Flash
11	Lawrence Court	Bundoora	Bundoora Drain	Flash
12	Lawrence Court	Bundoora	Bundoora Drain	Flash

Properties at risk from Flooding along Darebin Creek's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
14	Lawrence Court	Bundoora	Bundoora Drain	Flash
15	Lawrence Court	Bundoora	Bundoora Drain	Flash
16	Lawrence Court	Bundoora	Bundoora Drain	Flash
17	Lawrence Court	Bundoora	Bundoora Drain	Flash
3	Lawson Parade	Heidelberg Heights	Southern Rd Main Drain	Flash
5	Lawson Parade	Heidelberg Heights	Southern Rd Main Drain	Flash
222	Liberty Parade	Heidelberg West	Southern Rd Main Drain	Flash
223	Liberty Parade	Heidelberg West	Southern Rd Main Drain	Flash
224	Liberty Parade	Heidelberg West	Southern Rd Main Drain	Flash
1/225	Liberty Parade	Heidelberg West	Southern Rd Main Drain	Flash
2/225	Liberty Parade	Heidelberg West	Southern Rd Main Drain	Flash
226	Liberty Parade	Heidelberg West	Southern Rd Main Drain	Flash
227	Liberty Parade	Heidelberg West	Southern Rd Main Drain	Flash
228	Liberty Parade	Heidelberg West	Southern Rd Main Drain	Flash
229	Liberty Parade	Heidelberg West	Southern Rd Main Drain	Flash
230	Liberty Parade	Heidelberg West	Southern Rd Main Drain	Flash
231	Liberty Parade	Heidelberg West	Southern Rd Main Drain	Flash
233	Liberty Parade	Heidelberg West	Southern Rd Main Drain	Flash
235	Liberty Parade	Heidelberg West	Southern Rd Main Drain	Flash
237	Liberty Parade	Heidelberg West	Southern Rd Main Drain	Flash
365	Liberty Parade	Heidelberg West	Local Drainage	Flash
367	Liberty Parade	Heidelberg West	Local Drainage	Flash
369	Liberty Parade	Heidelberg West	Local Drainage	Flash
371	Liberty Parade	Heidelberg West	Local Drainage	Flash
373	Liberty Parade	Heidelberg West	Local Drainage	Flash
375	Liberty Parade	Heidelberg West	Local Drainage	Flash
31	Lillimur Avenue	Heidelberg West	Lillimur Ave Drain	Flash
34	Lillimur Avenue	Heidelberg West	Lillimur Ave Drain	Flash
36	Lillimur Avenue	Heidelberg West	Lillimur Ave Drain	Flash
1	Lime Court	Bellfield	Heidelberg West Main Drain	Flash
3	Lime Court	Bellfield	Heidelberg West Main Drain	Flash
41	Livingstone Street	Ivanhoe	Heidelberg West Main Drain	Flash
2/43	Livingstone Street	Ivanhoe	Heidelberg West Main Drain	Flash
3/43	Livingstone Street	Ivanhoe	Heidelberg West Main Drain	Flash
58	Lloyd Street	Heidelberg Heights	Southern Rd Main Drain	Flash
1/60	Lloyd Street	Heidelberg Heights	Southern Rd Main Drain	Flash
62	Lloyd Street	Heidelberg Heights	Southern Rd Main Drain	Flash
65	Lloyd Street	Heidelberg Heights	Southern Rd Main Drain	Flash
1/67	Lloyd Street	Heidelberg Heights	Southern Rd Main Drain	Flash
2/67	Lloyd Street	Heidelberg Heights	Southern Rd Main Drain	Flash
3/67	Lloyd Street	Heidelberg Heights	Southern Rd Main Drain	Flash
4/67	Lloyd Street	Heidelberg Heights	Southern Rd Main Drain	Flash
1/69	Lloyd Street	Heidelberg Heights	Southern Rd Main Drain	Flash
2/69	Lloyd Street	Heidelberg Heights	Southern Rd Main Drain	Flash

Properties at risk from Flooding along Darebin Creek's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
1/71	Lloyd Street	Heidelberg Heights	Southern Rd Main Drain	Flash
2/71	Lloyd Street	Heidelberg Heights	Southern Rd Main Drain	Flash
3/71	Lloyd Street	Heidelberg Heights	Southern Rd Main Drain	Flash
2/73	Lloyd Street	Heidelberg Heights	Southern Rd Main Drain	Flash
3/73	Lloyd Street	Heidelberg Heights	Southern Rd Main Drain	Flash
75	Lloyd Street	Heidelberg Heights	Southern Rd Main Drain	Flash
77	Lloyd Street	Heidelberg Heights	Southern Rd Main Drain	Flash
1/79	Lloyd Street	Heidelberg Heights	Southern Rd Main Drain	Flash
2/79	Lloyd Street	Heidelberg Heights	Southern Rd Main Drain	Flash
2	Luton Way	Bundoora	Bundoora Drain	Flash
4	Luton Way	Bundoora	Bundoora Drain	Flash
1	Malahang Parade	Heidelberg West	Southern Rd Main Drain	Flash
3	Malahang Parade	Heidelberg West	Southern Rd Main Drain	Flash
5	Malahang Parade	Heidelberg West	Southern Rd Main Drain	Flash
7	Malahang Parade	Heidelberg West	Southern Rd Main Drain	Flash
9	Malahang Parade	Heidelberg West	Southern Rd Main Drain	Flash
11	Malahang Parade	Heidelberg West	Southern Rd Main Drain	Flash
1/19	Malahang Parade	Heidelberg West	Southern Rd Main Drain	Flash
2/19	Malahang Parade	Heidelberg West	Southern Rd Main Drain	Flash
3/19	Malahang Parade	Heidelberg West	Southern Rd Main Drain	Flash
4/19	Malahang Parade	Heidelberg West	Southern Rd Main Drain	Flash
1/21	Malahang Parade	Heidelberg West	Southern Rd Main Drain	Flash
2/21	Malahang Parade	Heidelberg West	Southern Rd Main Drain	Flash
23	Malahang Parade	Heidelberg West	Southern Rd Main Drain	Flash
10	Mansfield Court	Bundoora	Local Drainage	Flash
11	Mansfield Court	Bundoora	Local Drainage	Flash
1/4-8	Marie Avenue	Heidelberg Heights	Local Drainage	Flash
2/4-8	Marie Avenue	Heidelberg Heights	Local Drainage	Flash
3/4-8	Marie Avenue	Heidelberg Heights	Local Drainage	Flash
4/4-8	Marie Avenue	Heidelberg Heights	Local Drainage	Flash
5/4-8	Marie Avenue	Heidelberg Heights	Local Drainage	Flash
6/4-8	Marie Avenue	Heidelberg Heights	Local Drainage	Flash
7/4-8	Marie Avenue	Heidelberg Heights	Local Drainage	Flash
8/4-8	Marie Avenue	Heidelberg Heights	Local Drainage	Flash
9/4-8	Marie Avenue	Heidelberg Heights	Local Drainage	Flash
10/4-8	Marie Avenue	Heidelberg Heights	Local Drainage	Flash
10	Marie Avenue	Heidelberg Heights	Local Drainage	Flash
129	Mcewan Road	Heidelberg West	Local Drainage	Flash
133	Mcewan Road	Heidelberg West	Local Drainage	Flash
10	Miller Street	Heidelberg Heights	Local Drainage	Flash
12	Miller Street	Heidelberg Heights	Local Drainage	Flash
3	Milton Parade	Bundoora	Bundoora Drain	Flash
4	Milton Parade	Bundoora	Bundoora Drain	Flash
5	Milton Parade	Bundoora	Bundoora Drain	Flash

Properties at risk from Flooding along Darebin Creek's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
6	Milton Parade	Bundoora	Bundoora Drain	Flash
7	Milton Parade	Bundoora	Bundoora Drain	Flash
8	Milton Parade	Bundoora	Bundoora Drain	Flash
9	Milton Parade	Bundoora	Bundoora Drain	Flash
10	Milton Parade	Bundoora	Bundoora Drain	Flash
11	Milton Parade	Bundoora	Bundoora Drain	Flash
12	Milton Parade	Bundoora	Bundoora Drain	Flash
14	Milton Parade	Bundoora	Bundoora Drain	Flash
15	Milton Parade	Bundoora	Bundoora Drain	Flash
16	Milton Parade	Bundoora	Bundoora Drain	Flash
17	Milton Parade	Bundoora	Bundoora Drain	Flash
18	Milton Parade	Bundoora	Bundoora Drain	Flash
19	Milton Parade	Bundoora	Bundoora Drain	Flash
20	Milton Parade	Bundoora	Bundoora Drain	Flash
22	Milton Parade	Bundoora	Bundoora Drain	Flash
23	Milton Parade	Bundoora	Bundoora Drain	Flash
24	Milton Parade	Bundoora	Bundoora Drain	Flash
43	Mologa Road	Heidelberg West	Lillimur Ave Drain	Flash
45	Mologa Road	Heidelberg West	Lillimur Ave Drain	Flash
47	Mologa Road	Heidelberg West	Lillimur Ave Drain	Flash
49	Mologa Road	Heidelberg West	Lillimur Ave Drain	Flash
53	Mologa Road	Heidelberg West	Lillimur Ave Drain	Flash
55	Mologa Road	Heidelberg West	Lillimur Ave Drain	Flash
57	Mologa Road	Heidelberg West	Lillimur Ave Drain	Flash
59	Mologa Road	Heidelberg West	Lillimur Ave Drain	Flash
61	Mologa Road	Heidelberg West	Lillimur Ave Drain	Flash
1	Moore Court	Bundoora	Bundoora Drain	Flash
2	Moore Court	Bundoora	Bundoora Drain	Flash
3	Moore Court	Bundoora	Bundoora Drain	Flash
4	Moore Court	Bundoora	Bundoora Drain	Flash
5	Moore Court	Bundoora	Bundoora Drain	Flash
6	Moore Court	Bundoora	Bundoora Drain	Flash
38	Morotai Parade	Heidelberg West	Southern Rd Main Drain	Flash
40	Morotai Parade	Heidelberg West	Southern Rd Main Drain	Flash
42	Morotai Parade	Heidelberg West	Southern Rd Main Drain	Flash
44	Morotai Parade	Heidelberg West	Southern Rd Main Drain	Flash
46	Morotai Parade	Heidelberg West	Southern Rd Main Drain	Flash
48	Morotai Parade	Heidelberg West	Southern Rd Main Drain	Flash
50	Morotai Parade	Heidelberg West	Southern Rd Main Drain	Flash
52	Morotai Parade	Heidelberg West	Southern Rd Main Drain	Flash
1/57	Morotai Parade	Heidelberg West	Southern Rd Main Drain	Flash
1/59	Morotai Parade	Heidelberg West	Southern Rd Main Drain	Flash
63	Morotai Parade	Heidelberg West	Southern Rd Main Drain	Flash
550	Morwell Avenue	Bundoora	Local Drainage	Flash

Properties at risk from Flooding along Darebin Creek's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
552	Morwell Avenue	Bundoora	Local Drainage	Flash
554	Morwell Avenue	Bundoora	Local Drainage	Flash
27	Noorong Avenue	Bundoora	Local Drainage	Flash
29	Noorong Avenue	Bundoora	Local Drainage	Flash
35	Noorong Avenue	Bundoora	Local Drainage	Flash
37	Noorong Avenue	Bundoora	Local Drainage	Flash
39	Noorong Avenue	Bundoora	Local Drainage	Flash
41	Noorong Avenue	Bundoora	Local Drainage	Flash
49	Noorong Avenue	Bundoora	Bundoora Drain	Flash
51	Noorong Avenue	Bundoora	Bundoora Drain	Flash
53	Noorong Avenue	Bundoora	Bundoora Drain	Flash
55	Noorong Avenue	Bundoora	Bundoora Drain	Flash
57	Noorong Avenue	Bundoora	Bundoora Drain	Flash
59	Noorong Avenue	Bundoora	Bundoora Drain	Flash
61	Noorong Avenue	Bundoora	Bundoora Drain	Flash
77	Noorong Avenue	Bundoora	Bundoora Drain	Flash
79	Noorong Avenue	Bundoora	Bundoora Drain	Flash
81	Noorong Avenue	Bundoora	Bundoora Drain	Flash
83	Noorong Avenue	Bundoora	Bundoora Drain	Flash
85	Noorong Avenue	Bundoora	Bundoora Drain	Flash
87	Noorong Avenue	Bundoora	Bundoora Drain	Flash
1/1	Northern Road	Heidelberg West	Lillimur Ave Drain	Flash
2/1	Northern Road	Heidelberg West	Lillimur Ave Drain	Flash
3/1	Northern Road	Heidelberg West	Lillimur Ave Drain	Flash
3	Northern Road	Heidelberg West	Lillimur Ave Drain	Flash
6	Northern Road	Heidelberg West	Lillimur Ave Drain	Flash
7	Northern Road	Heidelberg West	Lillimur Ave Drain	Flash
9	Northern Road	Heidelberg West	Lillimur Ave Drain	Flash
10	Northern Road	Heidelberg West	Lillimur Ave Drain	Flash
15	Northern Road	Heidelberg West	Lillimur Ave Drain	Flash
17	Northern Road	Heidelberg West	Lillimur Ave Drain	Flash
19	Northern Road	Heidelberg West	Lillimur Ave Drain	Flash
21	Northern Road	Heidelberg West	Lillimur Ave Drain	Flash
25	Northern Road	Heidelberg West	Lillimur Ave Drain	Flash
27	Northern Road	Heidelberg West	Lillimur Ave Drain	Flash
29	Northern Road	Heidelberg West	Lillimur Ave Drain	Flash
30	Northern Road	Heidelberg West	Lillimur Ave Drain	Flash
54	Northern Road	Heidelberg West	Lillimur Ave Drain	Flash
4	Okeefe Street	Bellfield	Local Drainage	Flash
33	Okeefe Street	Bellfield	Heidelberg West Main Drain	Flash
2	Osney Avenue	Ivanhoe	Heidelberg West Main Drain	Flash
22	Osney Avenue	Ivanhoe	Heidelberg West Main Drain	Flash
1	Oxford Drive	Bundoora	Bundoora Drain	Flash
2	Oxford Drive	Bundoora	Bundoora Drain	Flash

Properties at risk from Flooding along Darebin Creek's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
3	Oxford Drive	Bundoora	Bundoora Drain	Flash
4	Oxford Drive	Bundoora	Bundoora Drain	Flash
5	Oxford Drive	Bundoora	Bundoora Drain	Flash
6	Oxford Drive	Bundoora	Bundoora Drain	Flash
7	Oxford Drive	Bundoora	Bundoora Drain	Flash
8	Oxford Drive	Bundoora	Bundoora Drain	Flash
9	Oxford Drive	Bundoora	Bundoora Drain	Flash
10	Oxford Drive	Bundoora	Bundoora Drain	Flash
11	Oxford Drive	Bundoora	Bundoora Drain	Flash
12	Oxford Drive	Bundoora	Bundoora Drain	Flash
14	Oxford Drive	Bundoora	Bundoora Drain	Flash
15	Oxford Drive	Bundoora	Bundoora Drain	Flash
16	Oxford Drive	Bundoora	Bundoora Drain	Flash
17	Oxford Drive	Bundoora	Bundoora Drain	Flash
19	Oxford Drive	Bundoora	Bundoora Drain	Flash
1	Pandanus Court	Heidelberg West	Southern Rd Main Drain	Flash
2	Pandanus Court	Heidelberg West	Southern Rd Main Drain	Flash
3	Pandanus Court	Heidelberg West	Southern Rd Main Drain	Flash
4	Pandanus Court	Heidelberg West	Southern Rd Main Drain	Flash
5	Pandanus Court	Heidelberg West	Southern Rd Main Drain	Flash
6	Pandanus Court	Heidelberg West	Southern Rd Main Drain	Flash
7	Pandanus Court	Heidelberg West	Southern Rd Main Drain	Flash
8	Pandanus Court	Heidelberg West	Southern Rd Main Drain	Flash
16	Perkins Avenue	Bellfield	Heidelberg West Main Drain	Flash
18	Perkins Avenue	Bellfield	Heidelberg West Main Drain	Flash
20	Perkins Avenue	Bellfield	Heidelberg West Main Drain	Flash
22	Perkins Avenue	Bellfield	Heidelberg West Main Drain	Flash
24	Perkins Avenue	Bellfield	Heidelberg West Main Drain	Flash
26	Perkins Avenue	Bellfield	Heidelberg West Main Drain	Flash
1350	Plenty Road	Bundoora	Bundoora Drain	Flash
1364	Plenty Road	Bundoora	Bundoora Drain	Flash
1366	Plenty Road	Bundoora	Bundoora Drain	Flash
1370	Plenty Road	Bundoora	Bundoora Drain	Flash
1372	Plenty Road	Bundoora	Bundoora Drain	Flash
1374	Plenty Road	Bundoora	Bundoora Drain	Flash
1376	Plenty Road	Bundoora	Bundoora Drain	Flash
1378	Plenty Road	Bundoora	Bundoora Drain	Flash
1380	Plenty Road	Bundoora	Bundoora Drain	Flash
1382	Plenty Road	Bundoora	Bundoora Drain	Flash
1384	Plenty Road	Bundoora	Bundoora Drain	Flash
1386	Plenty Road	Bundoora	Bundoora Drain	Flash
1388	Plenty Road	Bundoora	Bundoora Drain	Flash
1396	Plenty Road	Bundoora	Bundoora Drain	Flash
2	Plunkett Street	Bellfield	Heidelberg West Main Drain	Flash

Properties at risk from Flooding along Darebin Creek's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
3	Plunkett Street	Bellfield	Heidelberg West Main Drain	Flash
4	Plunkett Street	Bellfield	Heidelberg West Main Drain	Flash
6	Plunkett Street	Bellfield	Heidelberg West Main Drain	Flash
8	Plunkett Street	Bellfield	Heidelberg West Main Drain	Flash
9	Plunkett Street	Bellfield	Heidelberg West Main Drain	Flash
10A	Plunkett Street	Bellfield	Heidelberg West Main Drain	Flash
11	Plunkett Street	Bellfield	Heidelberg West Main Drain	Flash
7	Rich Crescent	Bellfield	Heidelberg West Main Drain	Flash
9	Rich Crescent	Bellfield	Heidelberg West Main Drain	Flash
46	Robbins Street	Ivanhoe	Heidelberg West Main Drain	Flash
48	Robbins Street	Ivanhoe	Heidelberg West Main Drain	Flash
49	Robbins Street	Ivanhoe	Heidelberg West Main Drain	Flash
51	Robbins Street	Ivanhoe	Heidelberg West Main Drain	Flash
1	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
3	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
4	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
5	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
6	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
8	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
9	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
10	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
11	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
12	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
14	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
15	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
16	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
17	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
18	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
19	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
20	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
21	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
22	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
23	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
24	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
25	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
26	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
28	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
30	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
32	Sandhurst Crescent	Bundoora	Bundoora Drain	Flash
38-40	Sheehan Road	Heidelberg West	Lillimur Ave Drain	Flash
42-44	Sheehan Road	Heidelberg West	Lillimur Ave Drain	Flash
1/46	Sheehan Road	Heidelberg West	Lillimur Ave Drain	Flash
3/46	Sheehan Road	Heidelberg West	Lillimur Ave Drain	Flash
52	Sheehan Road	Heidelberg West	Lillimur Ave Drain	Flash

Properties at risk from Flooding along Darebin Creek's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
53	Sheehan Road	Heidelberg West	Lillimur Ave Drain	Flash
55	Sheehan Road	Heidelberg West	Lillimur Ave Drain	Flash
59	Sheehan Road	Heidelberg West	Lillimur Ave Drain	Flash
62-74	Sheehan Road	Heidelberg West	Lillimur Ave Drain	Flash
65	Sheehan Road	Heidelberg West	Lillimur Ave Drain	Flash
69	Sheehan Road	Heidelberg West	Lillimur Ave Drain	Flash
90	Sheehan Road	Heidelberg West	Lillimur Ave Drain	Flash
2/88	Southern Road	Heidelberg Heights	Southern Rd Main Drain	Flash
90B	Southern Road	Heidelberg Heights	Southern Rd Main Drain	Flash
3	Stanley Street	Ivanhoe	Heidelberg West Main Drain	Flash
5	Stanley Street	Ivanhoe	Heidelberg West Main Drain	Flash
7	Stanley Street	Ivanhoe	Heidelberg West Main Drain	Flash
8	Stanley Street	Ivanhoe	Heidelberg West Main Drain	Flash
10	Stanley Street	Ivanhoe	Heidelberg West Main Drain	Flash
1/11	Stanley Street	Ivanhoe	Heidelberg West Main Drain	Flash
3/11	Stanley Street	Ivanhoe	Heidelberg West Main Drain	Flash
12	Stanley Street	Ivanhoe	Heidelberg West Main Drain	Flash
4A	Sullivan Street	Bellfield	Local Drainage	Flash
1/57	Swanston Street	Heidelberg Heights	Local Drainage	Flash
2/57	Swanston Street	Heidelberg Heights	Local Drainage	Flash
1/59	Swanston Street	Heidelberg Heights	Local Drainage	Flash
2/59	Swanston Street	Heidelberg Heights	Local Drainage	Flash
3/59	Swanston Street	Heidelberg Heights	Local Drainage	Flash
7/4-6	Tate Street	Ivanhoe	Heidelberg West Main Drain	Flash
8/4-6	Tate Street	Ivanhoe	Heidelberg West Main Drain	Flash
9/4-6	Tate Street	Ivanhoe	Heidelberg West Main Drain	Flash
6/10	Tate Street	Ivanhoe	Heidelberg West Main Drain	Flash
7/10	Tate Street	Ivanhoe	Heidelberg West Main Drain	Flash
6	Tucker Street	Bundoora	Bundoora Drain	Flash
8	Tucker Street	Bundoora	Bundoora Drain	Flash
55	Valentine Street	Ivanhoe	Heidelberg West Main Drain	Flash
56	Valentine Street	Ivanhoe	Heidelberg West Main Drain	Flash
56A	Valentine Street	Ivanhoe	Heidelberg West Main Drain	Flash
1/57	Valentine Street	Ivanhoe	Heidelberg West Main Drain	Flash
2/57	Valentine Street	Ivanhoe	Heidelberg West Main Drain	Flash
3/57	Valentine Street	Ivanhoe	Heidelberg West Main Drain	Flash
8	Vernon Avenue	Heidelberg West	Local Drainage	Flash
10	Vernon Avenue	Heidelberg West	Local Drainage	Flash
1/12	Vernon Avenue	Heidelberg West	Local Drainage	Flash
2/12	Vernon Avenue	Heidelberg West	Local Drainage	Flash
14	Vernon Avenue	Heidelberg West	Local Drainage	Flash
16	Vernon Avenue	Heidelberg West	Local Drainage	Flash
18	Vernon Avenue	Heidelberg West	Local Drainage	Flash
20	Vernon Avenue	Heidelberg West	Local Drainage	Flash

Properties at risk from Flooding along Darebin Creek's Stormwater Tributaries during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Stormwater Drain	Flood Risk Type
22	Vernon Avenue	Heidelberg West	Local Drainage	Flash
4	Walden Court	Bundoora	Bundoora Drain	Flash
5	Walden Court	Bundoora	Bundoora Drain	Flash
5/12	Wallace Street	Ivanhoe	Heidelberg West Main Drain	Flash
300	Waterdale Road	Ivanhoe	Local Drainage	Flash
307-325	Waterdale Road	Bellfield	Heidelberg West Main Drain	Flash
345	Waterdale Road	Bellfield	Local Drainage	Flash
347	Waterdale Road	Bellfield	Local Drainage	Flash
349	Waterdale Road	Bellfield	Local Drainage	Flash
350	Waterdale Road	Ivanhoe	Local Drainage	Flash
351	Waterdale Road	Bellfield	Local Drainage	Flash
353	Waterdale Road	Bellfield	Local Drainage	Flash
355	Waterdale Road	Bellfield	Local Drainage	Flash
360	Waterdale Road	Ivanhoe	Local Drainage	Flash
484	Waterdale Road	Heidelberg Heights	Southern Rd Main Drain	Flash
486	Waterdale Road	Heidelberg Heights	Southern Rd Main Drain	Flash
16	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
17	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
18	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
19	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
20	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
1/21	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
2/21	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
3/21	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
22	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
22A	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
1/23	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
2/23	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
3/23	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
4/23	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
5/23	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
6/23	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
7/23	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
8/23	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
9/23	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
24	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
24A	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
26	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
28	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
30	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
32	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
34	Wewak Parade	Heidelberg West	Southern Rd Main Drain	Flash
1	Windsor Crescent	Bundoora	Bundoora Drain	Flash
40	Windsor Crescent	Bundoora	Bundoora Drain	Flash

Properties at risk from Flooding along Darebin Creek's Stormwater Tributaries during a 1% AEP event					
Residential		Commercial	Industrial	Rural	Public Use
Street No. at Risk	Street		Suburb	Along Stormwater Drain	Flood Risk Type
42	Windsor Crescent		Bundoora	Bundoora Drain	Flash
44	Windsor Crescent		Bundoora	Bundoora Drain	Flash
45	Windsor Crescent		Bundoora	Bundoora Drain	Flash
46	Windsor Crescent		Bundoora	Bundoora Drain	Flash
47	Windsor Crescent		Bundoora	Bundoora Drain	Flash
48	Windsor Crescent		Bundoora	Bundoora Drain	Flash
50	Windsor Crescent		Bundoora	Bundoora Drain	Flash
52	Windsor Crescent		Bundoora	Bundoora Drain	Flash
54	Windsor Crescent		Bundoora	Bundoora Drain	Flash
16	Wordsworth Avenue		Heidelberg Heights	Local Drainage	Flash
18	Wordsworth Avenue		Heidelberg Heights	Local Drainage	Flash
20	Wordsworth Avenue		Heidelberg Heights	Local Drainage	Flash
Total					
729					

Table C3.5 – Properties at risk of flooding along Darebin Creek's Stormwater Tributaries in the City of Banyule

Isolation

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

Essential Infrastructure

- **Banyule City Council Depot** on Waterdale Road, Bellfield likely flooded in parts during a 1% AEP Flood event.

- A Sewer Emergency Relief Point is located on lower Darebin Creek at LaTrobe Golf Club, Farm Road, Alphington. Contact the Melbourne Water EMLO/Duty Officer for information on any recent or planned releases at this location as part of a Dynamic Risk Assessment (DRA) if work is to be conducted at or downstream of this location.

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 Banyule is available via the website at:
https://static.ptv.vic.gov.au/siteassets/Maps/Localities/PDFs/1_Banyule_LAM_2016.pdf

Apart from the roads outlined below, all other essential infrastructure and services areas around Darebin Creek and its tributaries 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 Darebin Creek. Check the VicTraffic website for more details: http://alerts.vicroads.vic.gov.au/

Department of Transport Roads flooded in a 1% AEP (100yr ARI) event
• Grimshaw Street, Bundoora east of Oxford Drive

• Plenty Road, Bundoora at Milton Parade
• Southern Road, Heidelberg West between Oriel Road and Timor Parade

Table C3.6 – Department of Transport Possible Road Closures during a flooding event

Banyule City Council Roads flooded in a 1% AEP (100yr ARI) event		
BELLFIELD	• Lawrence Court	• Valentine Street
• Perkins Avenue	• Noorong Avenue	**HEIDELBERG WEST**
BUNDOORA	**HEIDELBERG HEIGHTS**	• Kolora Road
• Alfred Court	• Waterdale Road	• Korong Road
• Cameron Parade	**IVANHOE**	• Liberty Parade
• Chaucer Crescent	• Beatty Street	• Outhwaite Road
• Cranwell Court	• Bond Street	• Pandanus Court
• Famham Court	• Ford Street	• Sheehan Road
• Flannery Avenue	• Jellicoe Street	• South Crescent
• Keats Court	• Stanley Street	• Wewak Parade

Table C3.7 – Banyule City Council Possible Road Closures during a flooding event

Flood Mitigation

Retarding Basins

City of Banyule Retarding Basin	Location	Type	Melway Reference
Redmond Court	12 Redmond Court, Bundoora	Stormwater Treatment	10 A11
Southern Road Wetland	233 Southern Road, Heidelberg West	Stormwater Treatment Ponds	19 C12

Table C3.8 – Banyule City Council Retarding Basins within the Darebin Creek catchment in the City of Banyule

Sewerage Infrastructure

Sewerage Infrastructure of note during a severe flood event located within the Darebin Creek Catchment is contained within the following table. To view their locations, see mapping in **Appendix F**.

Sewer Emergency Relief Points

On Drain / Waterway	Bank / Side of Waterway	Location	Melway Reference
Darebin Creek	Western	LaTrobe Golf Club, Farm Road, Alphington	31 E12
Heidelberg West Main Drain	Western	Jellicoe Street, Ivanhoe	31 E5
Heidelberg West Main Drain	Western	Hawker Street, Ivanhoe	31 E5
Heidelberg West Main Drain	Western	Ford Street, Ivanhoe	31 E6

Table C3.9 – Sewer Emergency Relief Points within or close to Darebin Creek

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 Management Plan. During significant events, VICSES will conduct incident management using multi- agency resources.

Flood Impacts and Operational Considerations (Intelligence Cards)

The tables on the following pages provide a breakdown of the possible consequences of flooding along Darebin and its Stormwater Tributaries at various creek heights or rain totals within the City of Banyule. 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:

- Darebin Creek at Ivanhoe
- Darebin Creek Stormwater Tributaries

FLOOD INTELLIGENCE CARD – IVANHOE GAUGE, DAREBIN CREEK

Version 4 – June 2020

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. ***Scan the QR code for the current levels for this gauge.***

LOCATION:	**West bank of creek, northern side of Bell Street Bridge, Preston**
WEBSITE:	https://www.melbournewater.com.au/water/rainfall-and-river-levels#/reader/229403A
STREAM:	**Darebin Creek**
GAUGE NUMBER:	**229403A**
GAUGE ZERO:	**44.64m AHD**
GAUGE TYPE:	**Stream Level & Rain**

MELWAY REFERENCE:	**31 C2**
MINOR:	**Not Established**
MODERATE:	**Not Established**
MAJOR:	**Not Established**
LEVEE HEIGHT:	**N/A**
HIGHEST RECORDED FLOOD:	**3.21m (1st June 2013)**

Creek Height	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
4.51m	1% AEP (100yr ARI) Flood Level	**Properties at Flood Risk** **3 Properties in Total** • 1 Willowbank Grove, Ivanhoe • 21 & 25 Riverside Road, Ivanhoe **Community Infrastructure Flooded** • Darebin Creek Trail flooded at Olympic Park, Heidelberg West; either side of the Bell Street Bridge; and at Sparks Reserve, Ivanhoe • Pedestrian Bridge along the Darebin Creek Trail at Cyril Cummins Recreation Reserve, Liberty Parade, Bellfield • Sparks Reserve, The Boulevard, Ivanhoe **Essential Infrastructure Impacted** • Sewer Emergency Relief Point located on lower Darebin Creek at LaTrobe Golf Club, Farm Road, Alphington **Water Over Road** • Nil Affected	VICSES State and Region to provide warnings to the community and other agencies. VICSES will provide warnings using OSOM and SMSER as required based on the predications provided by BoM regarding flood levels and the risk of Flash Flooding. The North West Metro Regional Duty Officer in conjunction with the Regional Agency Commander will maintain operational awareness and form an appropriate response arrangement to suit the level of incident. SES to respond to RFA's on a case by case basis Council to setup road closure signage as required VICSES to liaise with SeW and EPA to monitor possibility of contamination entering flood waters

Table C3.10 – Breakdown of likely consequences at various Ivanhoe gauge level heights along Darebin Creek with operational considerations

FLOOD INTELLIGENCE CARD – DAREBIN CREEK STORMWATER TRIBUTARIES (UNGAUGED)

Version 4 – June 2020

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. ***Scan the QR code for the current levels for this gauge.***

CLOSEST RAIN GAUGE:	**Darebin Creek at Bundoora**
LOCATION:	South bank of Creek in Norris Bank Reserve, northern side of Settlement Road
WEBSITE:	https://www.melbournewater.com.au/water/rainfall-and-river-levels#/reader/229612A

MELWAY REF:	**9 F12**
GAUGE NUMBER:	**229612A**
GAUGE TYPE:	**Stream Level and Rain**

Design Rainfall Depths (mm) – *Indication of Possible Flooding*	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
22mm in 10 mins; 37mm in 30 mins; 48mm in 1 hour; 60mm in 2 hours; 69mm in 3 hours; or 85mm 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)	• Note: It is not known at what level property and infrastructure contained below starts being flooded **Properties at Flood Risk** **729 Properties in Total** **Bundoora Drain** • 2, 3, 5, 6, 7, 8 & 9 Alfred Court, Bundoora • 5, 6, 7 & 8 Ashdown Court, Bundoora • 4/8 & 5/8 Balaka Place, Bundoora • 60 Bent Street, Bundoora • 5, 6, 7, 8 & 9 Bingham Court, Bundoora • 1 & 2 Bowen Court, Bundoora • 1, 2, 3, 4, 5, 6, 8 & 10 Cambridge Way, Bundoora • 7, 9, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 38A, 39, 40, 41, 42, 43 & 44 Cameron Parade, Bundoora • 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, 37, 39 & 41 Chaucer Crescent, Bundoora • 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 & 11 Cranwell Court, Bundoora • 2, 3, 4, 5, 6 & 7 Farnham Court, Bundoora • 6 & 7 Glenara Court, Bundoora • 494, 496, 498, 500, 502, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 531, 533, 535, 537, 539, 1/541, 2/542, 543, 545, 547, 549 & 551 Grimshaw Street, Bundoora • 7, 8 & 9 Gyra Court, Bundoora • 1, 1/2, 2/2, 3, 4, 5, 6, 7, 8, 10 & 11 Harvard Court, Bundoora • 1/2, 2/2, 3/2, 3, 4 & 5 Keats Court, Bundoora	SES to respond to RFA's on a case by case basis

Design Rainfall Depths (mm) – *Indication of Possible Flooding*	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		• 1, 2, 3, 4, 6, 7, 8, 14, 15, 16, 17, 18 & 19 Kipling Court, Bundoora • 2, 3 & 4 Lamb Court, Bundoora • 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16 & 17 Lawrence Court, Bundoora • 2 & 4 Luton Way, Bundoora • 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 22, 23 & 24 Milton Parade, Bundoora • 1, 2, 3, 4, 5 & 6 Moore Court, Bundoora • 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17 & 19 Oxford Drive, Bundoora • 1350, 1364, 1366, 1370, 1372, 1374, 1376, 1378, 1380, 1382, 1384, 1386, 1388 & 1396 Plenty Road, Bundoora • 1, 3, 4, 5, 6, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 28, 30 & 32 Sandhurst Crescent, Bundoora • 6 & 8 Tucker Street, Bundoora • 4 & 5 Walden Court, Bundoora • 1, 40, 42, 44, 45, 46, 47, 48, 50, 52 & 54 Windsor Crescent, Bundoora **Heidelberg West Main Drain** • 32 & 33 Ailsa Grove, Ivanhoe • 197, 199 & 201 Banksia Street, Ivanhoe • 54, 56, 57 & 61 Bond Street, Ivanhoe • 1 & 2 Daphne Crescent, Bellfield (Greater Melbourne) • 7, 9, 11, 13A, 3/15, 4/19 & 3/21 Dudley Street, Ivanhoe • 5/42-44, 46B, 46A, 47, 48, 48, 49 & 57 Ford Street, Ivanhoe • 12 & 14 Garth Street, Ivanhoe • 35, 36, 37 & 2/38 Green Street, Ivanhoe • 43, 49 & 51 Hawker Street, Ivanhoe • 1, 3, 5, 6 & 1/8 Iffley Court, Ivanhoe • 22 & 23 Jellicoe Street, Ivanhoe • 5/27-29 & 31 Kenilworth Parade, Ivanhoe • 1 & 3 Lime Court, Bellfield (Greater Melbourne) • 41, 2/43 & 3/43 Livingstone Street, Ivanhoe • 2 & 22 Osney Avenue, Ivanhoe • 16, 18, 20, 22, 24 & 26 Perkins Avenue, Bellfield (Greater Melbourne) • 2, 3, 4, 6, 8, 9, 10A & 11 Plunkett Street, Bellfield (Greater Melbourne) • 7 & 9 Rich Crescent, Bellfield (Greater Melbourne) • 46, 48, 49 & 51 Robbins Street, Ivanhoe • 3, 5, 7, 8, 10, 1/11, 3/11 & 12 Stanley Street, Ivanhoe • 7/4-6, 8/4-6, 9/4-6, 6/10 & 7/10 Tate Street, Ivanhoe • 55, 56, 56A, 1/57, 2/57 & 3/57 Valentine Street, Ivanhoe • 5/12 Wallace Street, Ivanhoe • 307-325, 345, 347, 349, 350, 351, 353 & 355 Waterdale Road, Bellfield (Greater Melbourne) **Lillimur Ave Drain** • 40, Units 1-4/41, 4/45, 5/45, Units 1-5/46, 49, 50, 51, 52, Units 1-4/54-56, 55, 57, 58, 59, 60, 61, 65, 1/67, 2/67 & 69 Kolora Road, Heidelberg West	

Design Rainfall Depths (mm) – *Indication of Possible Flooding*	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		• 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63 & 65 Korong Road, Heidelberg West • 44, 54, 56, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68 & 75 Kylta Road, Heidelberg West • 31, 34 & 36 Lillimur Avenue, Heidelberg West • 43, 45, 47, 49, 53, 55, 57, 59 & 61 Mologa Road, Heidelberg West • 1/1, 2/1, 3/1, 3, 6, 7, 9, 10, 15, 17, 19, 21, 25, 27, 29, 30 & 54 Northern Road, Heidelberg West • 38-40, 42-44, 1/46, 3/46, 52, 53, 55, 59, 62-74, 65, 69 & 90 Sheehan Road, Heidelberg West **Local Drainage** • 2 Aileen Avenue, Heidelberg West • 1/174, 2/174, 3/174, 4/174, 180 & 184 Bell Street, Heidelberg Heights • 8 & 14 Culverlands Street, Heidelberg West • 7 & 8 Decathlon Street, Bundoora • 3 & 4 Edro Court, Bundoora • 69, 71, 73, 75 & 77 Edwin Street, Heidelberg Heights • 6, 8, 10, 12, 14, 42, 50 & 52 Flannery Avenue, Bundoora • 32 & 34 Greenwood Drive, Bundoora • 22 & 24 Havelock Avenue, Bundoora • 365, 367, 369, 371, 373 & 375 Liberty Parade, Heidelberg West • 10 & 11 Mansfield Court, Bundoora • Units 1-10/4-8 & 10 Marie Avenue, Heidelberg Heights • 129 & 133 Mcewan Road, Heidelberg West • 10 & 12 Miller Street, Heidelberg Heights • 550, 552 & 554 Morwell Avenue, Bundoora • 27, 29, 35, 37, 39, 41, 49, 51, 53, 55, 57, 59, 61, 77, 79, 81, 83, 85 & 87 Noorong Avenue, Bundoora • 4 & 33 Okeefe Street, Bellfield (Greater Melbourne) • 4A Sullivan Street, Bellfield (Greater Melbourne) • 1/57, 2/57, 1/59, 2/59 & 3/59 Swanston Street, Heidelberg Heights • 8, 10, 1/12, 2/12, 14, 16, 18, 20 & 22 Vernon Avenue, Heidelberg West • 300, 307-325, 345, 347, 349, 350, 351, 353, 355 & 360 Waterdale Road, Ivanhoe • 350, 351, 353, 355 & 360 Waterdale Road, Ivanhoe • 351, 353 & 355 Waterdale Road, Bellfield (Greater Melbourne) • 360 Waterdale Road, Ivanhoe • 16, 18 & 20 Wordsworth Avenue, Heidelberg Heights **Southern Rd Main Drain** • 126, 128, 130, 132 & 134 Altona Street, Heidelberg West • 42A, 42B, 44, 46, 48, 50, 52, 1/54, 2/54 & 56 Bonar Street, Heidelberg Heights • 5, 7, 9 & 11A Cypress Street, Heidelberg West • 25, 27, 29, 31 & 35 Elliott Street, Heidelberg Heights • 6 & 8 Keats Street, Heidelberg Heights • 13, 15, 17, 19 & 21 Kokoda Street, Heidelberg West	

Design Rainfall Depths (mm) – *Indication of Possible Flooding*	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		• 28, 30, 32, 34 & 36 Law Street, Heidelberg Heights • 3 & 5 Lawson Parade, Heidelberg Heights • 222, 223, 224, 1/225, 2/225, 226, 227, 228, 229, 230, 231, 233, 235 & 237 Liberty Parade, Heidelberg West • 58, 1/60, 62, 65, Units 1-4/67, 1/69, 2/69, Units 1-3/71, 2/73, 3/73, 75, 77, 1/79 & 2/79 Lloyd Street, Heidelberg Heights • 1, 3, 5, 7, 9, 11, Units 1-4/19, 1/21, 2/21 & 23 Malahang Parade, Heidelberg West • 38, 40, 42, 44, 46, 48, 50, 52, 1/57, 1/59 & 63 Morotai Parade, Heidelberg West • 1, 2, 3, 4, 5, 6, 7 & 8 Pandanus Court, Heidelberg West • 2/88 & 90B Southern Road, Heidelberg Heights • 484 & 486 Waterdale Road, Heidelberg Heights • 16, 17, 18, 19, 20, 1/21, 2/21, 3/21, 22, 22A, Units 1-9/23, 24, 24A, 26, 28, 30, 32 & 34 Wewak Parade, Heidelberg West **Community Infrastructure Flooded** **Heidelberg West Main Drain** • Scout Hall on Osney Avenue, Ivanhoe • Bicycle Trail flooded along Donaldsons Reserve, Ivanhoe • Scout Hall on Ford Street, Ivanhoe **Essential Infrastructure Impacted** • Council Depot on Waterdale Road, Bellfield likely flooded in parts **Water Over Road (Over 300mm Depth)** **Bundoora Drain** • Flannery Avenue, Bundoora • Noorong Avenue, Bundoora • Grimshaw Street, Bundoora east of Oxford Drive • Cameron Parade, Bundoora at Oxford Drive • Cranwell Court, Bundoora • Farnham Court, Bundoora • Chaucer Crescent, Bundoora • Keats Court, Bundoora • Alfred Court, Bundoora • Lawrence Court, Bundoora • Plenty Road, Bundoora at Milton Parade **Lillimur Avenue Drain** • Sheehan Road, Heidelberg West • Kolora Road, Heidelberg West • Korong Road, Heidelberg West **Southern Road Main Drain** • Liberty Parade, Heidelberg West at Dougharty Road and at Southern Road • Outhwaite Road, Heidelberg West • South Crescent, Heidelberg West	Council to setup road closure signage as required

Design Rainfall Depths (mm) – *Indication of Possible Flooding*	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		• Southern Road, Heidelberg West between Oriel Road and Timor Parade • Wewak Parade, Heidelberg West • Pandanus Court, Heidelberg West • Waterdale Road, Heidelberg Heights at Lloyd Street **Heidelberg West Main Drain** • Perkins Avenue, Bellfield • Jellicoe Street, Ivanhoe • Beatty Street, Ivanhoe • Valentine Street, Ivanhoe • Bond Street, Ivanhoe • Stanley Street, Ivanhoe • Ford Street, Ivanhoe	

Table C3.11 – Breakdown of possible consequences at various rainfall intensities around Darebin Creek's Stormwater Tributaries in Banyule with operational considerations

APPENDIX C4 – SALT CREEK & BANYULE DRAIN FLOOD EMERGENCY PLAN

Overview of Flooding Consequences

The Salt & Banyule Creeks run in a southerly direction through the centre of the City of Banyule, discharging into the Yarra River in Heidelberg and Viewbank respectively. The creeks also flow through the suburbs of Macleod, Yallambie & Rosanna.

The catchment area is relatively small and thus responds to short intense bursts of rainfall seeing quick rising water levels and flash flooding. No stream level gauges exist in the catchment. A number of retarding basins including the Salt Creek Retarding Basin at Harry Pottage Reserve are located along the waterways which minimise the impacts of flooding on the predominantly residential environment.

Areas of concern from flooding along the Salt and Banyule Creeks include:

- Rosanna Road in Heidelberg, between Darebin & Brown Streets
- Banyule Netball Stadium & Macleod College in Macleod
- Banyule Council & Civic Centre on Douglas Street, Rosanna
- Residential Properties on Grove Road, Rosanna

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 Salt Creek and Banyule Drain

Property		
Properties	**476**	
Residential	461	
Commercial	14	
Industrial	0	
Public Land	1	
Rural	0	
Community Infrastructure		
Care Facilities	1	Regis Manor
Schools / Colleges	1	Macleod College
Child Care / Kindergartens	2	Macleod Preschool & Rainbow Child Care
Essential Infrastructure		
Major Roads	1	Rosanna Road
Bus Routes	1	513
Government Buildings	1	Banyule Civic Centre
Sewerage Facilities	2	Emergency Relief Points
Drainage Facilities	8	Retarding Basins
Tourism / Recreation		
Sports Facilities	1	Banyule Netball Centre

Recreation Facilities	3	Macleod Park; Rosanna Parklands Bicycle Trail; & Banyule Flats Reserve Bicycle Trail			
Government Boundaries					
Local Gov't Areas	1	Banyule	CMA	1	Port Phillip & Westernport
Adjacent LGAs	1	Darebin	CFA District	0	
SES Resp' Boundary	1	Northcote	FRV District	1	Northern

Table C4.1 – Consequence Summary of 1% AEP flood along Salt Creek and Banyule Drain

Gauges and Warnings

Neither the Bureau of Meteorology nor Melbourne Water currently provides flood forecasts for Salt Creek or Banyule Creek. All flood response actions must therefore be driven by rainfall observations. A Telemetered rain gauge is located in Viewbank within the Banyule Creek catchment.

Gauge	Station No.	Location	Stream Level & Flow Gauge	Rain Gauge	Melway Reference
Viewbank AWS	86068	Southern side of Country Lane, Viewbank		✓	20 H12

Table C4.2 – Hydrographic Monitoring Stations within the Salt Creek & Banyule Drain catchments

This Gauge 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.

Area Map of Flood Risk within the Salt Creek catchment

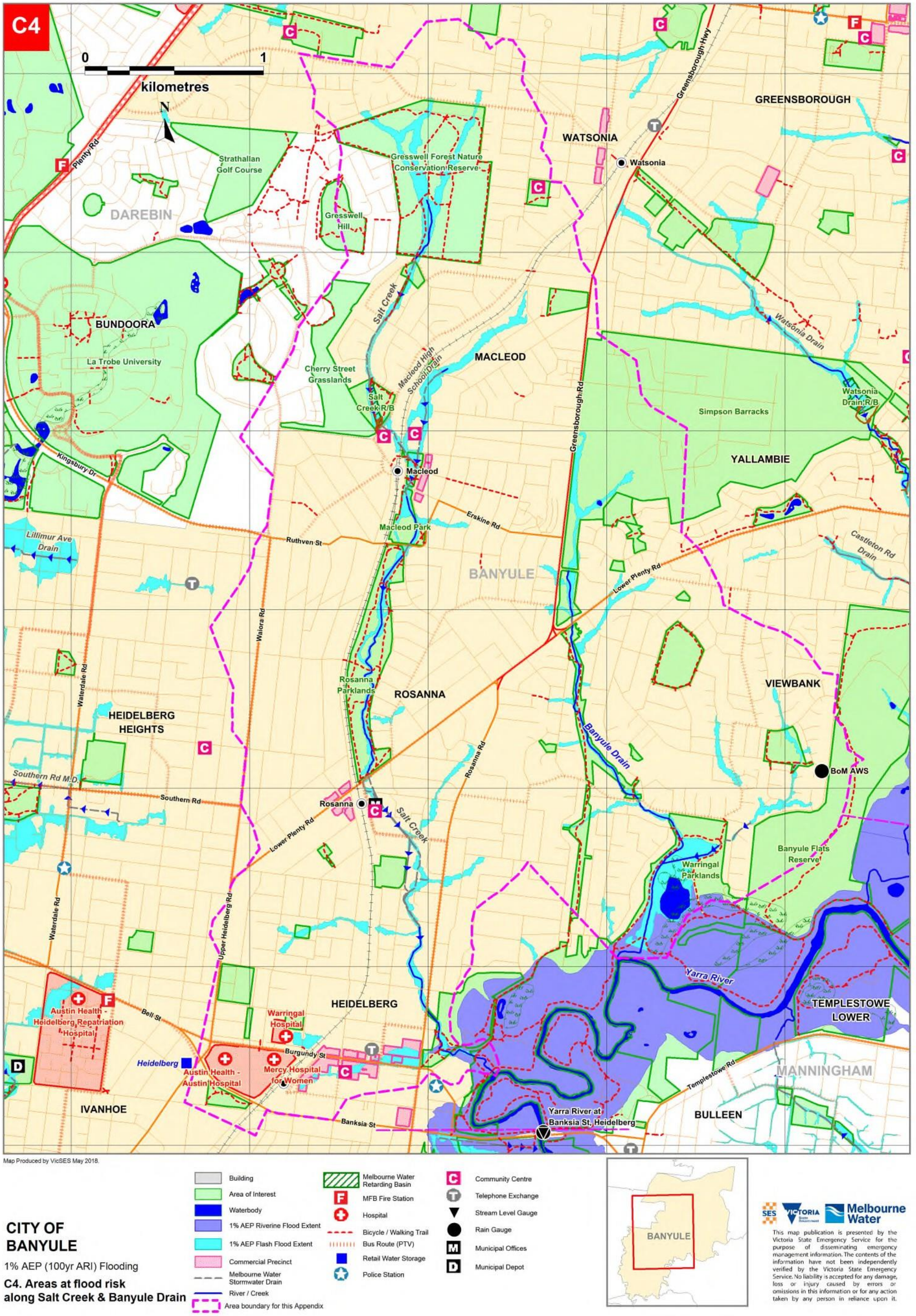


Figure C4 – Areas of flood risk around Salt Creek in the City of Banyule and area covered within this Appendices

Properties at Flood Risk

Properties listed in the table below are at risk from flooding along Salt Creek and the Banyule Drain. As more intelligence becomes available, this list may change. This table has been populated based on modelling work as part of the Salt Creek (Melbourne Water and Engeny, June 2017) and the Development of the Special Building Overlay (Engeny, February 2015) 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 Salt Creek and Banyule Drain during a 1% AEP event

Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
2	Aberdeen Road	Macleod	Salt Creek	Flash
4	Aberdeen Road	Macleod	Salt Creek	Flash
27	Aberdeen Road	Macleod	Salt Creek	Flash
31	Aberdeen Road	Macleod	Salt Creek	Flash
61	Aberdeen Road	Macleod	Salt Creek	Flash
10	Alfreda Avenue	Rosanna	Local Drainage	Flash
1	Appleblossom Court	Viewbank	Banyule East Drain	Flash
2	Appleblossom Court	Viewbank	Banyule East Drain	Flash
1	Arden Crescent	Rosanna	Local Drainage	Flash
3	Arden Crescent	Rosanna	Local Drainage	Flash
5	Arden Crescent	Rosanna	Local Drainage	Flash
11	Argyle Street	Macleod	Salt Creek	Flash
13	Argyle Street	Macleod	Salt Creek	Flash
1/14	Argyle Street	Macleod	Salt Creek	Flash
16	Argyle Street	Macleod	Salt Creek	Flash
18	Argyle Street	Macleod	Salt Creek	Flash
104	Banyule Road	Heidelberg	Banyule Drain	Flash
106	Banyule Road	Heidelberg	Banyule Drain	Flash
108	Banyule Road	Heidelberg	Banyule Drain	Flash
110	Banyule Road	Heidelberg	Banyule Drain	Flash
111	Banyule Road	Rosanna	Banyule Drain	Flash
279	Banyule Road	Viewbank	Banyule East Drain	Flash
281	Banyule Road	Viewbank	Banyule East Drain	Flash
283	Banyule Road	Viewbank	Banyule East Drain	Flash
285	Banyule Road	Viewbank	Banyule East Drain	Flash
287	Banyule Road	Viewbank	Banyule East Drain	Flash
289	Banyule Road	Viewbank	Banyule East Drain	Flash
291	Banyule Road	Viewbank	Banyule East Drain	Flash
293	Banyule Road	Viewbank	Banyule East Drain	Flash
295	Banyule Road	Viewbank	Banyule East Drain	Flash
297	Banyule Road	Viewbank	Banyule East Drain	Flash
299	Banyule Road	Viewbank	Banyule East Drain	Flash
301	Banyule Road	Viewbank	Banyule East Drain	Flash

Properties at risk from Flooding along Salt Creek and Banyule Drain during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
2	Bartram Rise	Viewbank	Banyule East Drain	Flash
4	Bartram Rise	Viewbank	Banyule East Drain	Flash
6	Bartram Rise	Viewbank	Banyule East Drain	Flash
60	Bartram Rise	Viewbank	Banyule East Drain	Flash
62	Bartram Rise	Viewbank	Banyule East Drain	Flash
64	Bartram Rise	Viewbank	Banyule East Drain	Flash
66	Bartram Rise	Viewbank	Banyule East Drain	Flash
54	Bendoran Crescent	Bundoora	Salt Creek	Flash
56	Bendoran Crescent	Bundoora	Salt Creek	Flash
12	Berkeley Avenue	Heidelberg	Local Drainage	Flash
14	Berkeley Avenue	Heidelberg	Local Drainage	Flash
16	Berkeley Avenue	Heidelberg	Local Drainage	Flash
45	Beverley Road	Heidelberg	Local Drainage	Flash
47	Beverley Road	Heidelberg	Local Drainage	Flash
49	Beverley Road	Heidelberg	Local Drainage	Flash
160	Beverley Road	Rosanna	Banyule Drain	Flash
5	Birdwood Avenue	Macleod	Salt Creek	Flash
5-9	Borlase Street	Yallambie	Banyule Drain	Flash
11-29	Borlase Street	Yallambie	Banyule Drain	Flash
5/7	Bronte Street	Heidelberg	Local Drainage	Flash
6/7	Bronte Street	Heidelberg	Local Drainage	Flash
1/13	Bronte Street	Heidelberg	Local Drainage	Flash
2/13	Bronte Street	Heidelberg	Local Drainage	Flash
17	Bronte Street	Heidelberg	Local Drainage	Flash
52	Brown Street	Heidelberg	Salt Creek	Flash
54	Brown Street	Heidelberg	Salt Creek	Flash
56	Brown Street	Heidelberg	Salt Creek	Flash
92	Burgundy Street	Heidelberg	Local Drainage	Flash
94	Burgundy Street	Heidelberg	Local Drainage	Flash
1/94	Burgundy Street	Heidelberg	Local Drainage	Flash
98	Burgundy Street	Heidelberg	Local Drainage	Flash
100	Burgundy Street	Heidelberg	Local Drainage	Flash
123	Burgundy Street	Heidelberg	Local Drainage	Flash
125	Burgundy Street	Heidelberg	Local Drainage	Flash
127-133	Burgundy Street	Heidelberg	Local Drainage	Flash
129	Burgundy Street	Heidelberg	Local Drainage	Flash
131	Burgundy Street	Heidelberg	Local Drainage	Flash
189	Cape Street	Heidelberg	Local Drainage	Flash
6/191	Cape Street	Heidelberg	Local Drainage	Flash
7/191	Cape Street	Heidelberg	Local Drainage	Flash
8/191	Cape Street	Heidelberg	Local Drainage	Flash
9/191	Cape Street	Heidelberg	Local Drainage	Flash
208	Cape Street	Heidelberg	Salt Creek	Flash
210	Cape Street	Heidelberg	Salt Creek	Flash

Properties at risk from Flooding along Salt Creek and Banyule Drain during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
13	Carwarp Street	Macleod	Salt Creek	Flash
1/15	Carwarp Street	Macleod	Salt Creek	Flash
3/15	Carwarp Street	Macleod	Salt Creek	Flash
16	Carwarp Street	Macleod	Salt Creek	Flash
2/18	Carwarp Street	Macleod	Salt Creek	Flash
3/18	Carwarp Street	Macleod	Salt Creek	Flash
50	Chapman Street	Macleod	Salt Creek	Flash
1/50	Chapman Street	Macleod	Salt Creek	Flash
2/50	Chapman Street	Macleod	Salt Creek	Flash
77	Chapman Street	Macleod	Salt Creek	Flash
7	Christine Street	Viewbank	Local Drainage	Flash
8	Christine Street	Viewbank	Local Drainage	Flash
9	Christine Street	Viewbank	Local Drainage	Flash
10	Christine Street	Viewbank	Local Drainage	Flash
18	Cleve Grove	Heidelberg	Local Drainage	Flash
20	Cleve Grove	Heidelberg	Local Drainage	Flash
2	Clyde Court	Heidelberg	Salt Creek	Flash
4	Clyde Court	Heidelberg	Salt Creek	Flash
6	Clyde Court	Heidelberg	Salt Creek	Flash
8	Clyde Court	Heidelberg	Salt Creek	Flash
10	Clyde Court	Heidelberg	Salt Creek	Flash
9	Country Lane	Viewbank	Local Drainage	Flash
4	Diane Crescent	Viewbank	Local Drainage	Flash
6	Diane Crescent	Viewbank	Local Drainage	Flash
8	Diane Crescent	Viewbank	Local Drainage	Flash
34	Diane Crescent	Viewbank	Local Drainage	Flash
36	Diane Crescent	Viewbank	Local Drainage	Flash
38	Diane Crescent	Viewbank	Local Drainage	Flash
40	Diane Crescent	Viewbank	Local Drainage	Flash
11	Douglas Street	Rosanna	Local Drainage	Flash
13	Douglas Street	Rosanna	Local Drainage	Flash
15	Douglas Street	Rosanna	Local Drainage	Flash
41	Drysdale Street	Yallambie	Local Drainage	Flash
2/82	Dunvegan Crescent	Macleod	Salt Creek	Flash
3/82	Dunvegan Crescent	Macleod	Salt Creek	Flash
4/82	Dunvegan Crescent	Macleod	Salt Creek	Flash
5/82	Dunvegan Crescent	Macleod	Salt Creek	Flash
6/82	Dunvegan Crescent	Macleod	Salt Creek	Flash
84	Dunvegan Crescent	Macleod	Salt Creek	Flash
86	Dunvegan Crescent	Macleod	Salt Creek	Flash
88	Dunvegan Crescent	Macleod	Salt Creek	Flash
90	Dunvegan Crescent	Macleod	Salt Creek	Flash
92	Dunvegan Crescent	Macleod	Salt Creek	Flash
94	Dunvegan Crescent	Macleod	Salt Creek	Flash

Properties at risk from Flooding along Salt Creek and Banyule Drain during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
1/3-5	Edgar Street	Heidelberg	Salt Creek	Flash
2/3-5	Edgar Street	Heidelberg	Salt Creek	Flash
1/8	Edgar Street	Heidelberg	Salt Creek	Flash
2/8	Edgar Street	Heidelberg	Salt Creek	Flash
3/8	Edgar Street	Heidelberg	Salt Creek	Flash
4/8	Edgar Street	Heidelberg	Salt Creek	Flash
5/8	Edgar Street	Heidelberg	Salt Creek	Flash
6/8	Edgar Street	Heidelberg	Salt Creek	Flash
7/8	Edgar Street	Heidelberg	Salt Creek	Flash
8/8	Edgar Street	Heidelberg	Salt Creek	Flash
9/8	Edgar Street	Heidelberg	Salt Creek	Flash
10/8	Edgar Street	Heidelberg	Salt Creek	Flash
2	Fay Street	Heidelberg	Local Drainage	Flash
43	Ferguson Street	Macleod	Salt Creek	Flash
45	Ferguson Street	Macleod	Salt Creek	Flash
1	Ferrier Court	Rosanna	Salt Creek	Flash
3	Ferrier Court	Rosanna	Salt Creek	Flash
5	Ferrier Court	Rosanna	Salt Creek	Flash
7	Ferrier Court	Rosanna	Salt Creek	Flash
9	Ferrier Court	Rosanna	Salt Creek	Flash
17	Finlayson Street	Rosanna	Salt Creek	Flash
32	Finlayson Street	Rosanna	Salt Creek	Flash
1/34	Finlayson Street	Rosanna	Salt Creek	Flash
2/34	Finlayson Street	Rosanna	Salt Creek	Flash
36	Finlayson Street	Rosanna	Salt Creek	Flash
24	Gleeson Drive	Bundoora	Salt Creek	Flash
27	Greensborough Road	Rosanna	Banyule Drain	Flash
51	Greensborough Road	Macleod	Banyule Drain	Flash
53	Greensborough Road	Macleod	Banyule Drain	Flash
55	Greensborough Road	Macleod	Banyule Drain	Flash
247	Greenwood Drive	Bundoora	Salt Creek	Flash
4	Grenhilda Road	Rosanna	Local Drainage	Flash
6	Grenhilda Road	Rosanna	Local Drainage	Flash
10	Grenhilda Road	Rosanna	Local Drainage	Flash
12	Grenhilda Road	Rosanna	Local Drainage	Flash
14	Grenhilda Road	Rosanna	Local Drainage	Flash
6	Greville Road	Rosanna	Local Drainage	Flash
8	Greville Road	Rosanna	Local Drainage	Flash
1/10	Greville Road	Rosanna	Local Drainage	Flash
2	Grove Road	Rosanna	Salt Creek	Flash
1/4	Grove Road	Rosanna	Salt Creek	Flash
2/4	Grove Road	Rosanna	Salt Creek	Flash
3/4	Grove Road	Rosanna	Salt Creek	Flash
6	Grove Road	Rosanna	Salt Creek	Flash

Properties at risk from Flooding along Salt Creek and Banyule Drain during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
8	Grove Road	Rosanna	Salt Creek	Flash
3/14	Grove Road	Rosanna	Salt Creek	Flash
16	Grove Road	Rosanna	Salt Creek	Flash
18	Grove Road	Rosanna	Salt Creek	Flash
20	Grove Road	Rosanna	Salt Creek	Flash
22	Grove Road	Rosanna	Salt Creek	Flash
24	Grove Road	Rosanna	Salt Creek	Flash
24A	Grove Road	Rosanna	Salt Creek	Flash
26	Grove Road	Rosanna	Salt Creek	Flash
28	Grove Road	Rosanna	Salt Creek	Flash
30	Grove Road	Rosanna	Salt Creek	Flash
45	Grove Road	Rosanna	Salt Creek	Flash
1/49	Grove Road	Rosanna	Salt Creek	Flash
2/49	Grove Road	Rosanna	Salt Creek	Flash
3/49	Grove Road	Rosanna	Salt Creek	Flash
4/49	Grove Road	Rosanna	Salt Creek	Flash
53	Grove Road	Rosanna	Salt Creek	Flash
55	Grove Road	Rosanna	Salt Creek	Flash
31	Halifax Avenue	Heidelberg	Banyule Drain	Flash
33	Halifax Avenue	Heidelberg	Banyule Drain	Flash
37	Halifax Avenue	Heidelberg	Banyule Drain	Flash
49	Halifax Avenue	Heidelberg	Banyule Drain	Flash
51	Halifax Avenue	Heidelberg	Banyule Drain	Flash
78-80	Hawdon Street	Heidelberg	Local Drainage	Flash
80	Hawdon Street	Heidelberg	Local Drainage	Flash
82	Hawdon Street	Heidelberg	Local Drainage	Flash
6/172	Hawdon Street	Heidelberg	Local Drainage	Flash
7/172	Hawdon Street	Heidelberg	Local Drainage	Flash
174	Hawdon Street	Heidelberg	Local Drainage	Flash
176	Hawdon Street	Heidelberg	Local Drainage	Flash
180	Hawdon Street	Heidelberg	Local Drainage	Flash
1/182	Hawdon Street	Heidelberg	Local Drainage	Flash
2/182	Hawdon Street	Heidelberg	Local Drainage	Flash
3/182	Hawdon Street	Heidelberg	Local Drainage	Flash
4/182	Hawdon Street	Heidelberg	Local Drainage	Flash
5/182	Hawdon Street	Heidelberg	Local Drainage	Flash
6/182	Hawdon Street	Heidelberg	Local Drainage	Flash
7/182	Hawdon Street	Heidelberg	Local Drainage	Flash
8/182	Hawdon Street	Heidelberg	Local Drainage	Flash
9/182	Hawdon Street	Heidelberg	Local Drainage	Flash
10/182	Hawdon Street	Heidelberg	Local Drainage	Flash
14	Hinkler Avenue	Macleod	Macleod High School Drain	Flash
16	Hinkler Avenue	Macleod	Macleod High School Drain	Flash
17	Hinkler Avenue	Macleod	Macleod High School Drain	Flash

Properties at risk from Flooding along Salt Creek and Banyule Drain during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
18	Hinkler Avenue	Macleod	Macleod High School Drain	Flash
19	Hinkler Avenue	Macleod	Macleod High School Drain	Flash
2/85	Hodgson Street	Rosanna	Local Drainage	Flash
3/85	Hodgson Street	Rosanna	Local Drainage	Flash
4/85	Hodgson Street	Rosanna	Local Drainage	Flash
3	Homewood Court	Rosanna	Banyule Drain	Flash
5	Homewood Court	Rosanna	Banyule Drain	Flash
7	Homewood Court	Rosanna	Banyule Drain	Flash
9	Homewood Court	Rosanna	Banyule Drain	Flash
11	Homewood Court	Rosanna	Banyule Drain	Flash
5	Hylton Crescent	Rosanna	Salt Creek	Flash
7	Hylton Crescent	Rosanna	Salt Creek	Flash
9	Hylton Crescent	Rosanna	Salt Creek	Flash
11	Hylton Crescent	Rosanna	Salt Creek	Flash
13	Hylton Crescent	Rosanna	Salt Creek	Flash
15	Hylton Crescent	Rosanna	Salt Creek	Flash
17A	Hylton Crescent	Rosanna	Salt Creek	Flash
17	Hylton Crescent	Rosanna	Salt Creek	Flash
19	Hylton Crescent	Rosanna	Salt Creek	Flash
21	Hylton Crescent	Rosanna	Salt Creek	Flash
23	Hylton Crescent	Rosanna	Salt Creek	Flash
5	Ironbark Street	Viewbank	Local Drainage	Flash
7	Ironbark Street	Viewbank	Local Drainage	Flash
9	Ironbark Street	Viewbank	Local Drainage	Flash
11	Ironbark Street	Viewbank	Local Drainage	Flash
15	Ironbark Street	Viewbank	Local Drainage	Flash
17	Ironbark Street	Viewbank	Local Drainage	Flash
5	Kallay Court	Viewbank	Banyule Drain	Flash
6	Kallay Court	Viewbank	Banyule Drain	Flash
7	Kallay Court	Viewbank	Banyule Drain	Flash
8	Kallay Court	Viewbank	Banyule Drain	Flash
9	Kallay Court	Viewbank	Banyule Drain	Flash
9A	Kallay Court	Viewbank	Banyule Drain	Flash
10	Kallay Court	Viewbank	Banyule Drain	Flash
11	Kallay Court	Viewbank	Banyule Drain	Flash
12	Kallay Court	Viewbank	Banyule Drain	Flash
10	Kambea Crescent	Viewbank	Banyule Drain	Flash
11	Kambea Crescent	Viewbank	Local Drainage	Flash
11A	Kambea Crescent	Viewbank	Local Drainage	Flash
12	Kambea Crescent	Viewbank	Banyule Drain	Flash
15	Kambea Crescent	Viewbank	Local Drainage	Flash
16	Kambea Crescent	Viewbank	Banyule Drain	Flash
18	Kambea Crescent	Viewbank	Banyule Drain	Flash
52	Kambea Crescent	Viewbank	Banyule Drain	Flash

Properties at risk from Flooding along Salt Creek and Banyule Drain during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
54	Kambea Crescent	Viewbank	Banyule Drain	Flash
11	Kathleen Street	Rosanna	Local Drainage	Flash
13	Kathleen Street	Rosanna	Local Drainage	Flash
15	Kathleen Street	Rosanna	Local Drainage	Flash
16	Kathleen Street	Rosanna	Local Drainage	Flash
18	Kathleen Street	Rosanna	Local Drainage	Flash
20	Kathleen Street	Rosanna	Local Drainage	Flash
22	Kathleen Street	Rosanna	Local Drainage	Flash
9	Lena Street	Viewbank	Local Drainage	Flash
11	Lena Street	Viewbank	Local Drainage	Flash
8	Leon Avenue	Rosanna	Local Drainage	Flash
9	Lindsay Street	Macleod	Macleod High School Drain	Flash
11	Lindsay Street	Macleod	Macleod High School Drain	Flash
13	Lindsay Street	Macleod	Macleod High School Drain	Flash
15	Lindsay Street	Macleod	Macleod High School Drain	Flash
17	Lindsay Street	Macleod	Macleod High School Drain	Flash
19	Lindsay Street	Macleod	Macleod High School Drain	Flash
21	Lindsay Street	Macleod	Macleod High School Drain	Flash
23-25	Lindsay Street	Macleod	Macleod High School Drain	Flash
28	Louise Street	Heidelberg	Local Drainage	Flash
4/342	Lower Plenty Road	Viewbank	Local Drainage	Flash
348	Lower Plenty Road	Viewbank	Local Drainage	Flash
3/350	Lower Plenty Road	Viewbank	Local Drainage	Flash
4/350	Lower Plenty Road	Viewbank	Local Drainage	Flash
352	Lower Plenty Road	Viewbank	Local Drainage	Flash
354	Lower Plenty Road	Viewbank	Local Drainage	Flash
356	Lower Plenty Road	Viewbank	Local Drainage	Flash
358A	Lower Plenty Road	Viewbank	Local Drainage	Flash
358	Lower Plenty Road	Viewbank	Local Drainage	Flash
1/359	Lower Plenty Road	Viewbank	Local Drainage	Flash
3/359	Lower Plenty Road	Viewbank	Local Drainage	Flash
360	Lower Plenty Road	Viewbank	Local Drainage	Flash
360A	Lower Plenty Road	Viewbank	Local Drainage	Flash
1/362	Lower Plenty Road	Viewbank	Local Drainage	Flash
2/362	Lower Plenty Road	Viewbank	Local Drainage	Flash
3/362	Lower Plenty Road	Viewbank	Local Drainage	Flash
364	Lower Plenty Road	Viewbank	Local Drainage	Flash
366	Lower Plenty Road	Viewbank	Local Drainage	Flash
8/10	Maleela Grove	Rosanna	Banyule Drain	Flash
24	Manton Street	Heidelberg	Local Drainage	Flash
25	Manton Street	Heidelberg	Local Drainage	Flash
1/26	Manton Street	Heidelberg	Local Drainage	Flash
1/64	Martin Street	Heidelberg	Local Drainage	Flash
2/64	Martin Street	Heidelberg	Local Drainage	Flash

Properties at risk from Flooding along Salt Creek and Banyule Drain during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
66	Martin Street	Heidelberg	Local Drainage	Flash
8	Martins Lane	Viewbank	Local Drainage	Flash
10	Martins Lane	Viewbank	Local Drainage	Flash
12	Martins Lane	Viewbank	Local Drainage	Flash
16	Mccrae Road	Rosanna	Banyule Drain	Flash
18	Mccrae Road	Rosanna	Banyule Drain	Flash
46	Mccrae Road	Rosanna	Banyule Drain	Flash
47	Mccrae Road	Rosanna	Banyule Drain	Flash
48	Mccrae Road	Rosanna	Banyule Drain	Flash
50	Mccrae Road	Rosanna	Banyule Drain	Flash
51	Mccrae Road	Rosanna	Banyule Drain	Flash
3	Melrose Avenue	Macleod	Macleod High School Drain	Flash
5	Melrose Avenue	Macleod	Macleod High School Drain	Flash
1A	Millicent Street	Rosanna	Local Drainage	Flash
1B	Millicent Street	Rosanna	Local Drainage	Flash
1C	Millicent Street	Rosanna	Local Drainage	Flash
2	Millicent Street	Rosanna	Local Drainage	Flash
1/4	Millicent Street	Rosanna	Local Drainage	Flash
2/4	Millicent Street	Rosanna	Local Drainage	Flash
3/4	Millicent Street	Rosanna	Local Drainage	Flash
6	Millicent Street	Rosanna	Local Drainage	Flash
1/7	Millicent Street	Rosanna	Local Drainage	Flash
3/7	Millicent Street	Rosanna	Local Drainage	Flash
4/7	Millicent Street	Rosanna	Local Drainage	Flash
23	Olive Grove	Heidelberg	Local Drainage	Flash
24	Olive Grove	Heidelberg	Local Drainage	Flash
26	Olive Grove	Heidelberg	Local Drainage	Flash
28	Olive Grove	Heidelberg	Local Drainage	Flash
6	Rill Street	Heidelberg	Local Drainage	Flash
1/7	Rill Street	Heidelberg	Local Drainage	Flash
2/7	Rill Street	Heidelberg	Local Drainage	Flash
3/7	Rill Street	Heidelberg	Local Drainage	Flash
4/7	Rill Street	Heidelberg	Local Drainage	Flash
6/7	Rill Street	Heidelberg	Local Drainage	Flash
7/7	Rill Street	Heidelberg	Local Drainage	Flash
8/7	Rill Street	Heidelberg	Local Drainage	Flash
8	Rill Street	Heidelberg	Local Drainage	Flash
10	Rill Street	Heidelberg	Local Drainage	Flash
11	Rill Street	Heidelberg	Local Drainage	Flash
1/57	Rosanna Road	Heidelberg	Salt Creek	Flash
2/57	Rosanna Road	Heidelberg	Salt Creek	Flash
3/57	Rosanna Road	Heidelberg	Salt Creek	Flash
65	Rosanna Road	Heidelberg	Salt Creek	Flash
67	Rosanna Road	Heidelberg	Salt Creek	Flash

Properties at risk from Flooding along Salt Creek and Banyule Drain during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
3/71	Rosanna Road	Heidelberg	Salt Creek	Flash
4/71	Rosanna Road	Heidelberg	Salt Creek	Flash
5/75	Rosanna Road	Heidelberg	Salt Creek	Flash
6/75	Rosanna Road	Heidelberg	Salt Creek	Flash
6/77	Rosanna Road	Heidelberg	Salt Creek	Flash
16/77	Rosanna Road	Heidelberg	Salt Creek	Flash
17/77	Rosanna Road	Heidelberg	Salt Creek	Flash
130	Rosanna Road	Rosanna	Local Drainage	Flash
131	Rosanna Road	Rosanna	Local Drainage	Flash
132	Rosanna Road	Rosanna	Local Drainage	Flash
134	Rosanna Road	Rosanna	Local Drainage	Flash
136	Rosanna Road	Rosanna	Local Drainage	Flash
3/201	Rosanna Road	Rosanna	Local Drainage	Flash
4/201	Rosanna Road	Rosanna	Local Drainage	Flash
35	Rutherford Road	Viewbank	Local Drainage	Flash
39	Rutherford Road	Viewbank	Local Drainage	Flash
41	Rutherford Road	Viewbank	Local Drainage	Flash
43	Rutherford Road	Viewbank	Local Drainage	Flash
45	Rutherford Road	Viewbank	Local Drainage	Flash
3	Short Street	Macleod	Salt Creek	Flash
2	Somers Avenue	Macleod	Macleod High School Drain	Flash
60	Somers Avenue	Macleod	Macleod High School Drain	Flash
64	Somers Avenue	Macleod	Macleod High School Drain	Flash
1/66	Somers Avenue	Macleod	Macleod High School Drain	Flash
2/66	Somers Avenue	Macleod	Macleod High School Drain	Flash
3/66	Somers Avenue	Macleod	Macleod High School Drain	Flash
4/66	Somers Avenue	Macleod	Macleod High School Drain	Flash
5/66	Somers Avenue	Macleod	Macleod High School Drain	Flash
6/66	Somers Avenue	Macleod	Macleod High School Drain	Flash
70	Somers Avenue	Macleod	Macleod High School Drain	Flash
72	Somers Avenue	Macleod	Macleod High School Drain	Flash
74	Somers Avenue	Macleod	Macleod High School Drain	Flash
76	Somers Avenue	Macleod	Macleod High School Drain	Flash
1/78	Somers Avenue	Macleod	Macleod High School Drain	Flash
2/78	Somers Avenue	Macleod	Macleod High School Drain	Flash
80	Somers Avenue	Macleod	Macleod High School Drain	Flash
82	Somers Avenue	Macleod	Macleod High School Drain	Flash
84	Somers Avenue	Macleod	Macleod High School Drain	Flash
86	Somers Avenue	Macleod	Macleod High School Drain	Flash
88	Somers Avenue	Macleod	Macleod High School Drain	Flash
90	Somers Avenue	Macleod	Macleod High School Drain	Flash
92	Somers Avenue	Macleod	Macleod High School Drain	Flash
94	Somers Avenue	Macleod	Macleod High School Drain	Flash
94A	Somers Avenue	Macleod	Macleod High School Drain	Flash

Properties at risk from Flooding along Salt Creek and Banyule Drain during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
96	Somers Avenue	Macleod	Macleod High School Drain	Flash
98	Somers Avenue	Macleod	Macleod High School Drain	Flash
100	Somers Avenue	Macleod	Macleod High School Drain	Flash
102	Somers Avenue	Macleod	Macleod High School Drain	Flash
104	Somers Avenue	Macleod	Macleod High School Drain	Flash
108	Somers Avenue	Macleod	Macleod High School Drain	Flash
110	Somers Avenue	Macleod	Macleod High School Drain	Flash
114-122	Somers Avenue	Macleod	Macleod High School Drain	Flash
2/126	Somers Avenue	Macleod	Macleod High School Drain	Flash
130	Somers Avenue	Macleod	Macleod High School Drain	Flash
36-38	Somerset Drive	Viewbank	Banyule Drain	Flash
1/77	St James Road	Rosanna	Salt Creek	Flash
2/77	St James Road	Rosanna	Salt Creek	Flash
3/77	St James Road	Rosanna	Salt Creek	Flash
4/77	St James Road	Rosanna	Salt Creek	Flash
5/77	St James Road	Rosanna	Salt Creek	Flash
6/77	St James Road	Rosanna	Salt Creek	Flash
7/77	St James Road	Rosanna	Salt Creek	Flash
8/77	St James Road	Rosanna	Salt Creek	Flash
9/77	St James Road	Rosanna	Salt Creek	Flash
10/77	St James Road	Rosanna	Salt Creek	Flash
11/77	St James Road	Rosanna	Salt Creek	Flash
12/77	St James Road	Rosanna	Salt Creek	Flash
13/77	St James Road	Rosanna	Salt Creek	Flash
14/77	St James Road	Rosanna	Salt Creek	Flash
15/77	St James Road	Rosanna	Salt Creek	Flash
16/77	St James Road	Rosanna	Salt Creek	Flash
17/77	St James Road	Rosanna	Salt Creek	Flash
18/77	St James Road	Rosanna	Salt Creek	Flash
19/77	St James Road	Rosanna	Salt Creek	Flash
20/77	St James Road	Rosanna	Salt Creek	Flash
21/77	St James Road	Rosanna	Salt Creek	Flash
83	St James Road	Rosanna	Salt Creek	Flash
21	Station Road	Rosanna	Salt Creek	Flash
1/23	Station Road	Rosanna	Salt Creek	Flash
2/23	Station Road	Rosanna	Salt Creek	Flash
3/23	Station Road	Rosanna	Salt Creek	Flash
4/23	Station Road	Rosanna	Salt Creek	Flash
5/23	Station Road	Rosanna	Salt Creek	Flash
6/23	Station Road	Rosanna	Salt Creek	Flash
40	Station Road	Rosanna	Salt Creek	Flash
1	Stewart Terrace	Macleod	Macleod High School Drain	Flash
3	Stewart Terrace	Macleod	Macleod High School Drain	Flash
7	Stewart Terrace	Macleod	Macleod High School Drain	Flash

Properties at risk from Flooding along Salt Creek and Banyule Drain during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
9	Stewart Terrace	Macleod	Macleod High School Drain	Flash
11	Stewart Terrace	Macleod	Macleod High School Drain	Flash
15	Stewart Terrace	Macleod	Macleod High School Drain	Flash
17	Stewart Terrace	Macleod	Macleod High School Drain	Flash
19	Stewart Terrace	Macleod	Macleod High School Drain	Flash
21	Stewart Terrace	Macleod	Macleod High School Drain	Flash
23	Stewart Terrace	Macleod	Macleod High School Drain	Flash
1/25	Stewart Terrace	Macleod	Macleod High School Drain	Flash
2/25	Stewart Terrace	Macleod	Macleod High School Drain	Flash
27	Stewart Terrace	Macleod	Macleod High School Drain	Flash
2/29	Stewart Terrace	Macleod	Macleod High School Drain	Flash
3/29	Stewart Terrace	Macleod	Macleod High School Drain	Flash
2/33	Stewart Terrace	Macleod	Macleod High School Drain	Flash
1/35	Stewart Terrace	Macleod	Macleod High School Drain	Flash
2/35	Stewart Terrace	Macleod	Macleod High School Drain	Flash
47	Stewart Terrace	Macleod	Macleod High School Drain	Flash
1/49	Stewart Terrace	Macleod	Macleod High School Drain	Flash
2/49	Stewart Terrace	Macleod	Macleod High School Drain	Flash
51	Stewart Terrace	Macleod	Macleod High School Drain	Flash
2/53	Stewart Terrace	Macleod	Macleod High School Drain	Flash
3/53	Stewart Terrace	Macleod	Macleod High School Drain	Flash
57	Stewart Terrace	Macleod	Macleod High School Drain	Flash
4	Stradbroke Avenue	Heidelberg	Local Drainage	Flash
1	The Silo	Viewbank	Local Drainage	Flash
20	Thornton Street	Macleod	Salt Creek	Flash
22	Thornton Street	Macleod	Salt Creek	Flash
24	Thornton Street	Macleod	Salt Creek	Flash
32	Thornton Street	Macleod	Salt Creek	Flash
34	Thornton Street	Macleod	Salt Creek	Flash
2/36	Thornton Street	Macleod	Salt Creek	Flash
1	Tranquil Winter Court	Viewbank	Banyule East Drain	Flash
2	Tranquil Winter Court	Viewbank	Banyule East Drain	Flash
3	Tranquil Winter Court	Viewbank	Banyule East Drain	Flash
4	Tranquil Winter Court	Viewbank	Banyule East Drain	Flash
5	Tranquil Winter Court	Viewbank	Banyule East Drain	Flash
6	Tranquil Winter Court	Viewbank	Banyule East Drain	Flash
44	Turnham Avenue	Rosanna	Salt Creek	Flash
72	Turnham Avenue	Rosanna	Salt Creek	Flash
10	Warren Road	Viewbank	Local Drainage	Flash
12	Warren Road	Viewbank	Local Drainage	Flash
20	Willa Avenue	Viewbank	Local Drainage	Flash
22	Willa Avenue	Viewbank	Local Drainage	Flash
24	Willa Avenue	Viewbank	Local Drainage	Flash
26	Willa Avenue	Viewbank	Local Drainage	Flash

Properties at risk from Flooding along Salt Creek and Banyule Drain during a 1% AEP event				
Residential	Commercial	Industrial	Rural	Public Use

Street No. at Risk	Street	Suburb	Along Melbourne Water Watercourse	Flood Risk Type
16	Wilmot Street	Macleod	Banyule Drain	Flash
18	Wilmot Street	Macleod	Banyule Drain	Flash
157	Wungan Street	Macleod	Salt Creek	Flash
2	Aberdeen Road	Macleod	Salt Creek	Flash
4	Aberdeen Road	Macleod	Salt Creek	Flash
27	Aberdeen Road	Macleod	Salt Creek	Flash
31	Aberdeen Road	Macleod	Salt Creek	Flash
61	Aberdeen Road	Macleod	Salt Creek	Flash
10	Alfreda Avenue	Rosanna	Local Drainage	Flash

Total
476

Table C4.3 – Properties at risk of flooding along the Salt Creek and Banyule Drain catchment in the City of Banyule

Isolation

No major isolation risks exist for areas around Salt Creek and the Banyule Drain 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 Banyule is available via the website at: https://static.ptv.vic.gov.au/siteassets/Maps/Localities/PDFs/1_Banyule_LAM_2016.pdf

Apart from the roads outlined below, all other essential infrastructure and services areas around Salt Creek 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 Salt Creek. Check the VicTraffic website for more details: http://alerts.vicroads.vic.gov.au/

Department of Transport Roads flooded in a 1% AEP (100yr ARI) event
• Rosanna Road, Heidelberg between Darebin and Brown Streets

Table C4.4 – Department of Transport Possible Road Closures during a flooding event

Banyule City Council Roads flooded in a 1% AEP (100yr ARI) event		
HEIDELBERG	• Highview Crescent	**ROSANNA**
• Burgundy Street	• Hinkler Avenue	• Grove Road
• Edgar Street	• May Street	**VIEWBANK**
• Manton Street	• Ruthven Street	• Bartram Rise
MACLEOD	• Short Street	• Rutherford Road
• Birdwood Avenue	• Vincent Street	**YALLAMBIE**
• Glenmore Street	• Wungan Street	• Drysdale Street

Table C4.5 – Banyule City Council Possible Road Closures during a flooding event

Flood Mitigation

Retarding Basins

Melbourne Water Retarding Basin	On Drain/ Waterway	Surface Area at Full Supply Level	Storage Capacity	Spillway Crest Level	Full Supply Level	Embankment Crest Height / Level	ANCOLD Hazard Rating	Houses or Businesses in Flow Path (dam breach)	Melway Reference
Salt Creek Retarding Basin, Harry Pottage Reserve	Salt Creek	0.53 ha	13 ML	N/A	58.7m AHD	3.0m / Unknown	Very Low	2	20 A7

Table C4.6 – Melbourne Water Retarding Basins within the Salt Creek catchment in the City of Banyule

City of Banyule Retarding Basin	Location	Type	Melway Reference
Davies Street, corner Ellemere Parade	Davies Street, Rosanna	Stormwater Treatment, Wetland	19 K11
Beverley Road Wetland	2 Beverley Road, Heidelberg	Stormwater Treatment, Wetland	32 C3
Banyule Flats Reserve North East Swamp Inlet	136 Banyule Road, Viewbank	Silt Pond Catchment	32 E1
Vin Heffernan Reserve Retarding Basin	34A Casey Crescent, Viewbank	Retarding Basin	20 G11
Remembrance Park Drainage Line Retarding Pond	2 Warringal Place, Heidelberg	Silt Pond Catchment	31 J5
Harry Pottage Reserve	Cnr Wungan Street and Glenmore Street, Macleod	Retarding Basin	20 A7
Aberdeen Road, Salt Creek	Cnr Aberdeen Road and May Street, Macleod	Retarding Basin	20 B8

Table C4.7 – Banyule City Council Retarding Basins within the Salt Creek catchment in the City of Banyule

Sewerage Infrastructure

Sewer Emergency Relief Points

There are Sewer Emergency Relief Points along Salt Creek that will likely affect floodwater conditions should they be activated. Contact the Melbourne Water EMLO/Duty Officer for information on any recent or planned releases at a Sewer Emergency Relief Point as part of a Dynamic Risk Assessment (DRA) if work is to be conducted at or downstream of the outlet.

On Drain / Waterway	Bank / Side of Waterway	Location	Melway Reference
Macleod High School Drain	Northern	Hinkler Avenue, Macleod	20 C6
Salt Creek	Eastern	Edgar Street, Rosanna	32 B2

Table C4.8 – Sewer Emergency Relief Points in the Salt Creek Catchment in the City of Banyule

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 Management Plan. During significant events, VICSES will conduct incident management using multi- agency resources.

Flood Impacts and Operational Considerations (Intelligence Cards)

The tables on the following pages provide a breakdown of the possible consequences of flooding along Salt Creek, Banyule Drain and the local stormwater tributaries 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:

- Salt Creek and the Banyule Drain

FLOOD INTELLIGENCE CARD – SALT CREEK (UNGAUGED)

Version 4 – June 2020

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:	Yarra River at Banksia St, Heidelberg
LOCATION:	East bank of River on Northern side of Banksia Street Bridge, Bulleen
WEBSITE:	https://www.melbournewater.com.au/water/rainfall-and-river-levels#/reader/229135A

MELWAY REF:	**32 C5**
GAUGE NUMBER:	**229135A**
GAUGE TYPE:	**Stream Level & Rain**

Design Rainfall Depths (mm) – *Indication of Possible Flooding*	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
22mm in 10 mins; 37mm in 30 mins; 48mm in 1 hour; 60mm in 2 hours; 69mm in 3 hours; or 85mm 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)	• Note: It is not known at what level infrastructure contained below starts being flooded **Properties at Flood Risk** **476 Properties in Total** **Banyule Drain** • 104, 106, 108 & 110 Banyule Road, Heidelberg • 111 Banyule Road, Rosanna • 160 Beverley Road, Rosanna • 5-9 & 11-29 Borlase Street, Yallambie • 27 Greensborough Road, Rosanna • 51, 53 & 55 Greensborough Road, Macleod • 31, 33, 37, 49 & 51 Halifax Avenue, Heidelberg • 3, 5, 7, 9 & 11 Homewood Court, Rosanna • 5, 6, 7, 8, 9, 9A, 10, 11 & 12 Kallay Court, Viewbank • 10, 11, 11A, 12, 15, 16, 18, 52 & 54 Kambea Crescent, Viewbank • 8/10 Maleela Grove, Rosanna • 16, 18, 46, 47, 48, 50 & 51 Mccrae Road, Rosanna • 36-38 Somerset Drive, Viewbank • 16 & 18 Wilmot Street, Macleod **Banyule East Drain** • 1 & 2 Appleblossom Court, Viewbank • 279, 281, 283, 285, 287, 289, 291, 293, 295, 297, 299 & 301 Banyule Road, Viewbank	SES to respond to RFA's on a case by case basis

Design Rainfall Depths (mm) – *Indication of Possible Flooding*	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		• 2, 4, 6, 60, 62, 64 & 66 Bartram Rise, Viewbank • 1, 2, 3, 4, 5 & 6 Tranquil Winter Court, Viewbank **Local Drainage** • 10 Alfreda Avenue, Rosanna • 1, 3 & 5 Arden Crescent, Rosanna • 12, 14 & 16 Berkeley Avenue, Heidelberg • 45, 47 & 49 Beverley Road, Heidelberg • 5/7, 6/7, 1/13, 2/13 & 17 Bronte Street, Heidelberg • 92, 94, 1/94, 98, 100, 123, 125, 127-133, 129 & 131 Burgundy Street, Heidelberg • 189, 6/191, 7/191, 8/191, 9/191, 208 & 210 Cape Street, Heidelberg • 7, 8, 9 & 10 Christine Street, Viewbank • 18 & 20 Cleve Grove, Heidelberg • 9 Country Lane, Viewbank • 4, 6, 8, 34, 36, 38 & 40 Diane Crescent, Viewbank • 11, 13 & 15 Douglas Street, Rosanna • 41 Drysdale Street, Yallambie • 2 Fay Street, Heidelberg • 4, 6, 10, 12 & 14 Grenhilda Road, Rosanna • 6, 8 & 1/10 Greville Road, Rosanna • 78-80, 80, 82, 6/172, 7/172, 174, 176, 180 & Units 10/182 Hawdon Street, Heidelberg • 2/85, 3/85 & 4/85 Hodgson Street, Rosanna • 5, 7, 9, 11, 15 & 17 Ironbark Street, Viewbank • 11, 13, 15, 16, 18, 20 & 22 Kathleen Street, Rosanna • 9 & 11 Lena Street, Viewbank • 8 Leon Avenue, Rosanna • 28 Louise Street, Heidelberg • 4/342, 348, 3/350, 4/350, 352, 354, 356, 358A, 358, 1/359, 3/359, 360, 360A, Units 1-3/362, 264 & 266 Lower Plenty Road, Viewbank • 24, 25 & 1/26 Manton Street, Heidelberg • 1/64, 2/64 & 66 Martin Street, Heidelberg • 8, 10 & 12 Martins Lane, Viewbank • 1A, 1B, 1C, 2, 1/4, 2/4, 3/4, 6, 1/7, 3/7 & 4/7 Millicent Street, Rosanna • 23, 24, 26 & 28 Olive Grove, Heidelberg • 6, 1/7, 2/7, 3/7, 4/7, 6/7, 7/7, 8/7, 8, 10 & 11 Rill Street, Heidelberg • 130, 131, 132, 134, 136, 3/201 & 4/201 Rosanna Road, Rosanna • 35, 39, 41, 43 & 45 Rutherford Road, Viewbank • 4 Stradbroke Avenue, Heidelberg • 1 The Silo, Viewbank • 10 & 12 Warren Road, Viewbank • 20, 22, 24 & 26 Willa Avenue, Viewbank	Aged care facility to invoke emergency evacuation plan if required

Design Rainfall Depths (mm) – *Indication of Possible Flooding*	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		Macleod High School Drain • 14, 16, 17, 18 & 19 Hinkler Avenue, Macleod • 9, 11, 13, 15, 17, 19, 21 & 23-25 Lindsay Street, Macleod • 3 & 5 Melrose Avenue, Macleod • 2, 60, 64, 1/66, 2/66, 3/66, 4/66, 5/66, 6/66, 70, 72, 74, 76, 1/78, 2/78, 80, 82, 84, 86, 88, 90, 92, 94, 94A, 96, 98, 100, 102, 104, 108, 110, 114-122, 2/126 & 130 Somers Avenue, Macleod • 1, 3, 7, 9, 11, 15, 17, 19, 21, 23, 1/25, 2/25, 27, 2/29, 3/29, 2/33, 1/35, 2/35, 47, 1/49, 2/49, 51, 2/53 3/53 & 57 Stewart Terrace, Macleod **Salt Creek** • 2, 4, 27, 31 & 61 Aberdeen Road, Macleod • 11, 13, 1/14, 16 & 18 Argyle Street, Macleod • 54 & 56 Bendoran Crescent, Bundoora • 5 Birdwood Avenue, Macleod • 52, 54 & 56 Brown Street, Heidelberg • 13, 1/15, 3/15, 16, 2/18 & 3/18 Carwarp Street, Macleod • 50, 1/50, 2/50 & 77 Chapman Street, Macleod • 2, 4, 6, 8 & 10 Clyde Court, Heidelberg • 2/82, 3/82, 4/82, 5/82, 6/82, 84, 86, 88, 90, 92 & 94 Dunvegan Crescent, Macleod • 1/3-5, 2/3-5 & Units 1-10/8 Edgar Street, Heidelberg • 43 & 45 Ferguson Street, Macleod • 1, 3, 5, 7 & 9 Ferrier Court, Rosanna • 17, 32, 1/34, 2/34 & 36 Finlayson Street, Rosanna • 24 Gleeson Drive, Bundoora • 247 Greenwood Drive, Bundoora • 2, 1/4, 2/4, 3/4, 6, 8, 3/14, 16, 18, 20, 22, 24, 24A, 26, 28, 30, 45, Units 1-4/49, 53 & 55 Grove Road, Rosanna • 5, 7, 9, 11, 13, 15, 17A, 17, 19, 21 & 23 Hylton Crescent, Rosanna • 1/57, 2/57, 3/57, 65, 67, 3/71, 4/71, 5/75, 6/75, 6/77, 16/77 & 17/77 Rosanna Road, Heidelberg • 3 Short Street, Macleod • Units 1-21/77 & 83 St James Road, Rosanna • 21, 1/23, 2/23, 3/23, 4/23, 5/23, 6/23 & 40 Station Road, Rosanna • 20, 22, 24, 32, 34 & 2/36 Thornton Street, Macleod • 44 & 72 Turnham Avenue, Rosanna • 157 Wungan Street, Macleod **Community Infrastructure Flooded** **Salt Creek** • Regis Heathcliff Manor Aged Care Facility, 118 Somers Avenue, Macleod • Macleod College, 77 Strathallan Road, Macleod • Banyule Netball Centre, 2 Somers Avenue, Macleod	Council to setup road closure signage as required

Design Rainfall Depths (mm) – *Indication of Possible Flooding*	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		• Macleod Preschool Play Centre on Birdwood Avenue, Macleod • Macleod Park on Aberdeen Road, Macleod • Rosanna Parklands Bicycle Trail flooded at various locations • Banyule City Council & Civic Centre on Douglas Street, Rosanna **Banyule Drain** • Banyule Flats Reserve Bicycle Trails flooded • Rainbow Child Care Centre, 51 Greensborough Road, Macleod **Essential Infrastructure Impacted** • Bus Route 513 along Rosanna Road, Heidelberg **Water Over Road (Over 300mm Depth)** **Salt Creek** • Vincent Street, Macleod • Short Street, Macleod • Highview Crescent, Macleod • Glenmore Street, Macleod • Hinkler Avenue, Macleod • Wungan Street, Macleod near McNamara Street Intersection • May Street, Macleod • Birdwood Avenue, Macleod • Ruthven Street, Macleod at Thomson Drive • Grove Road, Rosanna • Edgar Street, Heidelberg • Manton Street, Heidelberg • Rosanna Road, Heidelberg between Darebin Street and Brown Street • Burgundy Street, Heidelberg at Cape Street **Banyule Drain** • Drysdale Street, Yallambie **Banyule East Drain** • Rutherford Road, Viewbank • Bartram Rise, Viewbank	

Table C4.9 – Breakdown of possible consequences at various rainfall intensities around Salt Creek and Banyule Drain with operational considerations

APPENDIX C5 – ST HELENA & KARINGAL YALLOCK DRAINS FLOOD EMERGENCY PLAN

Overview of Flooding Consequences

The St Helena East & West Drains flow south in the north eastern corner of the City of Banyule, where they join together at the Briar Hill Retarding Basin on Karingal Drive, Briar Hill. The Eltham West drain then flows from the Retarding Basin in a south easterly direction, entering the Shire of Nillumbik however a number of tributaries still enter the drain from the City of Banyule throughout Briar Hill and Montmorency.

The catchment area is small, seeing the largely residential area at risk from flash flooding. No stream level gauges exist in the catchment.

Areas of concern from flooding along the St Helena Drains and Eltham West Tributaries include:

- Karingal Drive near St Helena Road Intersection and the south bound lane near Sherbourne Road
- Properties along Weidlich Road, Eltham North; Marden Drive in Briar Hill; & Sherbourne Road in Montmorency

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 the St Helena & Karingal Yallock Drains

Property		
Properties	**315**	
Residential	310	
Commercial	0	
Industrial	0	
Public Land	5	
Rural	0	
Community Infrastructure		
Health Facilities	1	Sherbourne Rd Medical Clinic
Care Facilities	1	Liscombe House Aged Care
Child Care / Kindergartens	1	Briar Hill Preschool
Essential Infrastructure		
Major Roads	1	Karingal Drive
Bus Routes	4	513, 517, 518 & 902
Drainage Facilities	3	Retarding Basins
Tourism / Recreation		
Recreation Facilities	1	Malcolm Blair Reserve
Government Boundaries		

Local Gov't Areas	1	Banyule	CMA	1	Port Phillip & Westernport
Adjacent LGAs	1	Nillumbik	CFA District	1	District 14
SES Resp' Boundary	1	Nillumbik	FRV District	0	

Table C5.1 – Consequence Summary of 1% AEP flood along the St Helena & Karingal Yallock Drains

Gauges and Warnings

Neither the Bureau of Meteorology nor Melbourne Water currently provides flood forecasts for the St Helena & Eltham West Drains. All flood response actions must therefore be driven by rainfall and / or river level observations. Telemetered water level / flood gauges are located at Greensborough & Eltham. Although neither of these gauges are within the St Helena & Eltham West Drains catchment, they may give an indication to potential flooding in the area.

Gauge	Station No.	Location	Stream Level & Flow Gauge	Rain Gauge	Melway Reference
Diamond Creek at Eltham	229618A	East bank of Creek, northern side of Bridge St Bridge, Eltham	✓		21 H6
Plenty River at Greensborough	229615A	East bank of River along the Maroondah Aqueduct	✓	✓	10 J9

Table C5.2 – Hydrographic Monitoring Stations close to the St Helena & Eltham West Drains 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.

Area Map of Flood Risk around the St Helena and Karingal Yallock Drains

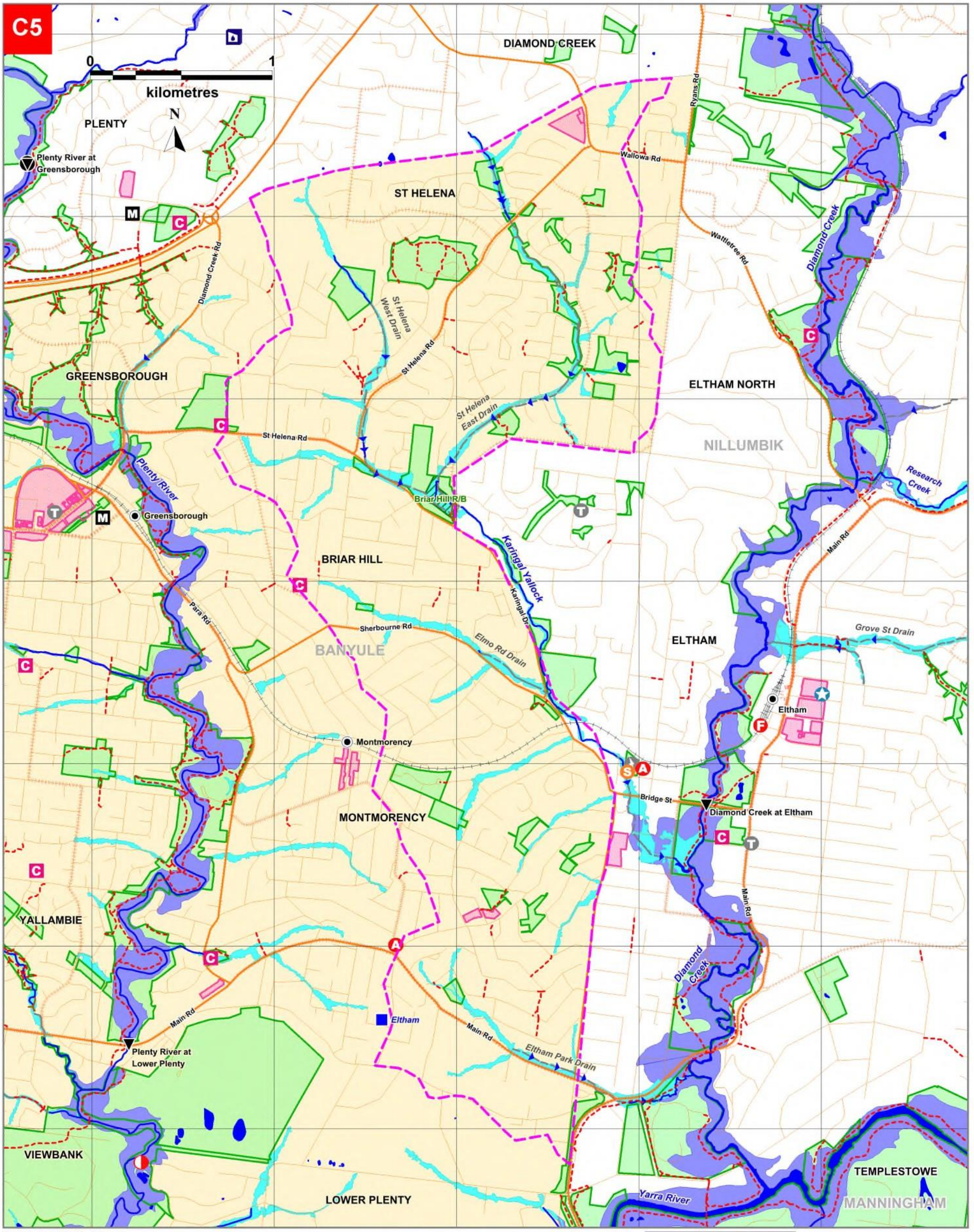


Figure C5 – Areas of flood risk around the St Helena & Eltham West Drains in the City of Banyule and area covered by this appendix

Properties at Flood Risk

Properties listed in the table below are at risk from flooding along the St Helena and Karingal Yallock Drains. As more intelligence becomes available, this list may change. This table has been populated based on modelling work as part of the Eltham West Main Drain (Melbourne Water and AECOM, July 2011) 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 the St Helena & Karingal Yallock 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
2	Allens Road	Montmorency	Local Drainage	Flash
4	Allens Road	Montmorency	Local Drainage	Flash
6	Allens Road	Montmorency	Local Drainage	Flash
8	Allens Road	Montmorency	Local Drainage	Flash
10	Allens Road	Montmorency	Local Drainage	Flash
12	Allens Road	Montmorency	Local Drainage	Flash
14	Allens Road	Montmorency	Local Drainage	Flash
16	Allens Road	Montmorency	Local Drainage	Flash
18	Allens Road	Montmorency	Local Drainage	Flash
1	Aminya Place	Briar Hill	Local Drainage	Flash
6	Aminya Place	Briar Hill	Local Drainage	Flash
53	Belmont Crescent	Montmorency	Local Drainage	Flash
55	Belmont Crescent	Montmorency	Local Drainage	Flash
1/127	Bolton Street	Eltham	Local Drainage	Flash
2/127	Bolton Street	Eltham	Local Drainage	Flash
3/127	Bolton Street	Eltham	Local Drainage	Flash
233	Bolton Street	Eltham	Local Drainage	Flash
235	Bolton Street	Eltham	Local Drainage	Flash
237	Bolton Street	Eltham	Local Drainage	Flash
239	Bolton Street	Eltham	Local Drainage	Flash
245	Bolton Street	Eltham	Local Drainage	Flash
35	Bonnie Doone Street	Briar Hill	Local Drainage	Flash
2/19	Calrossie Avenue	Montmorency	Local Drainage	Flash
21A	Calrossie Avenue	Montmorency	Local Drainage	Flash
4/23	Calrossie Avenue	Montmorency	Local Drainage	Flash
29	Calrossie Avenue	Montmorency	Local Drainage	Flash
31	Calrossie Avenue	Montmorency	Local Drainage	Flash
33	Calrossie Avenue	Montmorency	Local Drainage	Flash
35	Calrossie Avenue	Montmorency	Local Drainage	Flash
39	Calrossie Avenue	Montmorency	Local Drainage	Flash
10	Cambrian Court	Eltham North	St Helena East Drain	Flash
15	Cambrian Court	Eltham North	St Helena East Drain	Flash
16	Cambrian Court	Eltham North	St Helena East Drain	Flash
3	Cressy Street	Montmorency	Local Drainage	Flash

Properties at risk from Flooding along the St Helena & Karingal Yallock 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
3A	Cressy Street	Montmorency	Local Drainage	Flash
4	Cressy Street	Montmorency	Local Drainage	Flash
5	Cressy Street	Montmorency	Local Drainage	Flash
6	Cressy Street	Montmorency	Local Drainage	Flash
8	Cressy Street	Montmorency	Local Drainage	Flash
10	Cressy Street	Montmorency	Local Drainage	Flash
12A	Cressy Street	Montmorency	Local Drainage	Flash
5	Dixon Court	Briar Hill	Local Drainage	Flash
5	Eliza Close	Greensborough	St Helena West Drain	Flash
6	Eliza Close	Greensborough	St Helena West Drain	Flash
7	Eliza Close	Greensborough	St Helena West Drain	Flash
8	Eliza Close	Greensborough	St Helena West Drain	Flash
2	Elmo Road	Montmorency	Elmo Rd Drain	Flash
2/14	Fernside Avenue	Briar Hill	Elmo Rd Drain	Flash
3/14	Fernside Avenue	Briar Hill	Elmo Rd Drain	Flash
16	Fernside Avenue	Briar Hill	Elmo Rd Drain	Flash
2/26-28	Fernside Avenue	Briar Hill	Elmo Rd Drain	Flash
3/26-28	Fernside Avenue	Briar Hill	Elmo Rd Drain	Flash
4/26-28	Fernside Avenue	Briar Hill	Elmo Rd Drain	Flash
30	Fernside Avenue	Briar Hill	Elmo Rd Drain	Flash
2/32	Fernside Avenue	Briar Hill	Elmo Rd Drain	Flash
2	Hibiscus Avenue	Briar Hill	Elmo Rd Drain	Flash
4	Hibiscus Avenue	Briar Hill	Elmo Rd Drain	Flash
6	Hibiscus Avenue	Briar Hill	Elmo Rd Drain	Flash
6-6A	Hibiscus Avenue	Briar Hill	Elmo Rd Drain	Flash
6	Hughes Street	Montmorency	Elmo Rd Drain	Flash
2/8	Hughes Street	Montmorency	Elmo Rd Drain	Flash
1	Hyacinth Street	Briar Hill	Elmo Rd Drain	Flash
1/1	Hyacinth Street	Briar Hill	Elmo Rd Drain	Flash
2/1	Hyacinth Street	Briar Hill	Elmo Rd Drain	Flash
3	Hyacinth Street	Briar Hill	Elmo Rd Drain	Flash
3	Karingal Drive	Montmorency	Elmo Rd Drain	Flash
5	Karingal Drive	Montmorency	Elmo Rd Drain	Flash
7	Karingal Drive	Montmorency	Elmo Rd Drain	Flash
94	Karingal Drive	Greensborough	St Helena West Drain	Flash
118	Karingal Drive	Greensborough	St Helena West Drain	Flash
128	Karingal Drive	Greensborough	St Helena West Drain	Flash
130	Karingal Drive	Greensborough	St Helena West Drain	Flash
132	Karingal Drive	Greensborough	St Helena West Drain	Flash
136	Karingal Drive	Greensborough	St Helena West Drain	Flash
147	Karingal Drive	Briar Hill	Local Drainage	Flash
149	Karingal Drive	Briar Hill	Local Drainage	Flash
41	Kirwana Grove	Montmorency	Local Drainage	Flash
59	Leach Street	Briar Hill	Local Drainage	Flash

Properties at risk from Flooding along the St Helena & Karingal Yallock 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
1/25	Lilicur Road	Montmorency	Local Drainage	Flash
2/25	Lilicur Road	Montmorency	Local Drainage	Flash
26	Lilicur Road	Montmorency	Local Drainage	Flash
27	Lilicur Road	Montmorency	Local Drainage	Flash
28	Lilicur Road	Montmorency	Local Drainage	Flash
1	Lorraine Drive	Briar Hill	Elmo Rd Drain	Flash
379	Main Road	Montmorency	Local Drainage	Flash
381	Main Road	Montmorency	Local Drainage	Flash
383	Main Road	Montmorency	Local Drainage	Flash
385	Main Road	Montmorency	Local Drainage	Flash
387	Main Road	Montmorency	Local Drainage	Flash
389	Main Road	Montmorency	Local Drainage	Flash
391	Main Road	Montmorency	Local Drainage	Flash
393	Main Road	Montmorency	Local Drainage	Flash
397	Main Road	Montmorency	Local Drainage	Flash
401	Main Road	Montmorency	Local Drainage	Flash
403	Main Road	Montmorency	Local Drainage	Flash
405	Main Road	Montmorency	Local Drainage	Flash
407	Main Road	Montmorency	Local Drainage	Flash
409	Main Road	Montmorency	Local Drainage	Flash
411	Main Road	Montmorency	Local Drainage	Flash
413	Main Road	Montmorency	Local Drainage	Flash
1/415	Main Road	Montmorency	Local Drainage	Flash
2/415	Main Road	Montmorency	Local Drainage	Flash
417	Main Road	Montmorency	Local Drainage	Flash
419	Main Road	Montmorency	Local Drainage	Flash
421	Main Road	Montmorency	Local Drainage	Flash
1/425	Main Road	Montmorency	Local Drainage	Flash
427	Main Road	Montmorency	Local Drainage	Flash
429	Main Road	Montmorency	Local Drainage	Flash
431	Main Road	Montmorency	Local Drainage	Flash
433	Main Road	Montmorency	Local Drainage	Flash
1/435	Main Road	Montmorency	Local Drainage	Flash
4	Marden Drive	Briar Hill	Local Drainage	Flash
6	Marden Drive	Briar Hill	Local Drainage	Flash
8	Marden Drive	Briar Hill	Local Drainage	Flash
10	Marden Drive	Briar Hill	Local Drainage	Flash
12	Marden Drive	Briar Hill	Local Drainage	Flash
14	Marden Drive	Briar Hill	Local Drainage	Flash
16	Marden Drive	Briar Hill	Local Drainage	Flash
18	Marden Drive	Briar Hill	Local Drainage	Flash
20	Marden Drive	Briar Hill	Local Drainage	Flash
22	Marden Drive	Briar Hill	Local Drainage	Flash
24	Marden Drive	Briar Hill	Local Drainage	Flash

Properties at risk from Flooding along the St Helena & Karingal Yallock 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
26	Marden Drive	Briar Hill	Local Drainage	Flash
28	Marden Drive	Briar Hill	Local Drainage	Flash
29	Maxine Drive	St Helena	St Helena East Drain	Flash
31	Maxine Drive	St Helena	St Helena East Drain	Flash
33	Maxine Drive	St Helena	St Helena East Drain	Flash
35	Maxine Drive	St Helena	St Helena East Drain	Flash
37	Maxine Drive	St Helena	St Helena East Drain	Flash
3	Mccarthy Grove	Montmorency	Local Drainage	Flash
4/5	Mccarthy Grove	Montmorency	Local Drainage	Flash
5/5	Mccarthy Grove	Montmorency	Local Drainage	Flash
6/5	Mccarthy Grove	Montmorency	Local Drainage	Flash
27	Mccarthy Grove	Montmorency	Local Drainage	Flash
29	Mccarthy Grove	Montmorency	Local Drainage	Flash
2	Meadow Crescent	Montmorency	Local Drainage	Flash
6	Meadow Crescent	Montmorency	Local Drainage	Flash
3/12	Meadow Crescent	Montmorency	Local Drainage	Flash
3/14	Meadow Crescent	Montmorency	Local Drainage	Flash
216	Mountain View Road	Briar Hill	Local Drainage	Flash
218	Mountain View Road	Briar Hill	Local Drainage	Flash
220	Mountain View Road	Briar Hill	Local Drainage	Flash
222	Mountain View Road	Briar Hill	Local Drainage	Flash
224	Mountain View Road	Briar Hill	Local Drainage	Flash
1/226	Mountain View Road	Briar Hill	Local Drainage	Flash
2/226	Mountain View Road	Briar Hill	Local Drainage	Flash
2	Mulgowrie Court	Greensborough	St Helena West Drain	Flash
3	Mulgowrie Court	Greensborough	St Helena West Drain	Flash
4	Mulgowrie Court	Greensborough	St Helena West Drain	Flash
5	Mulgowrie Court	Greensborough	St Helena West Drain	Flash
11	Mulgowrie Court	Greensborough	St Helena West Drain	Flash
12	Mulgowrie Court	Greensborough	St Helena West Drain	Flash
5	Napier Crescent	Montmorency	Local Drainage	Flash
7	Napier Crescent	Montmorency	Local Drainage	Flash
29	Napier Crescent	Montmorency	Local Drainage	Flash
7	Nulgarrah Crescent	Greensborough	St Helena West Drain	Flash
9	Nulgarrah Crescent	Greensborough	St Helena West Drain	Flash
35	Orr Lane	Montmorency	Local Drainage	Flash
37	Orr Lane	Montmorency	Local Drainage	Flash
39	Orr Lane	Montmorency	Local Drainage	Flash
1	Outlook Crescent	Briar Hill	Elmo Rd Drain	Flash
3	Outlook Crescent	Briar Hill	Elmo Rd Drain	Flash
8	Porter Street	Briar Hill	Elmo Rd Drain	Flash
4/10-12	Porter Street	Briar Hill	Elmo Rd Drain	Flash
5/10-12	Porter Street	Briar Hill	Elmo Rd Drain	Flash
6/10-12	Porter Street	Briar Hill	Elmo Rd Drain	Flash

Properties at risk from Flooding along the St Helena & Karingal Yallock 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
7/10-12	Porter Street	Briar Hill	Elmo Rd Drain	Flash
119	Rattray Road	Montmorency	Local Drainage	Flash
121	Rattray Road	Montmorency	Local Drainage	Flash
1/123	Rattray Road	Montmorency	Local Drainage	Flash
2/123	Rattray Road	Montmorency	Local Drainage	Flash
125	Rattray Road	Montmorency	Local Drainage	Flash
131	Rattray Road	Montmorency	Local Drainage	Flash
133	Rattray Road	Montmorency	Local Drainage	Flash
139	Rattray Road	Montmorency	Local Drainage	Flash
147	Rattray Road	Montmorency	Local Drainage	Flash
149	Rattray Road	Montmorency	Local Drainage	Flash
165A	Rattray Road	Montmorency	Local Drainage	Flash
167	Rattray Road	Montmorency	Local Drainage	Flash
3/171	Rattray Road	Montmorency	Local Drainage	Flash
4/171	Rattray Road	Montmorency	Local Drainage	Flash
5/171	Rattray Road	Montmorency	Local Drainage	Flash
6/171	Rattray Road	Montmorency	Local Drainage	Flash
177-183	Rattray Road	Montmorency	Local Drainage	Flash
185	Rattray Road	Montmorency	Local Drainage	Flash
187	Rattray Road	Montmorency	Local Drainage	Flash
4/189	Rattray Road	Montmorency	Local Drainage	Flash
5/189	Rattray Road	Montmorency	Local Drainage	Flash
1/17	Robert Street	Montmorency	Local Drainage	Flash
19	Robert Street	Montmorency	Local Drainage	Flash
21	Robert Street	Montmorency	Local Drainage	Flash
3	Sackville Street	Montmorency	Local Drainage	Flash
1/5	Sackville Street	Montmorency	Local Drainage	Flash
2/5	Sackville Street	Montmorency	Local Drainage	Flash
14	Sackville Street	Montmorency	Local Drainage	Flash
16	Sackville Street	Montmorency	Local Drainage	Flash
18	Sackville Street	Montmorency	Local Drainage	Flash
19	Sackville Street	Montmorency	Local Drainage	Flash
19A	Sackville Street	Montmorency	Local Drainage	Flash
20-32	Sackville Street	Montmorency	Local Drainage	Flash
21	Sackville Street	Montmorency	Local Drainage	Flash
36	Sackville Street	Montmorency	Local Drainage	Flash
2/44	Sackville Street	Montmorency	Local Drainage	Flash
2/48	Sackville Street	Montmorency	Local Drainage	Flash
3/68	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
2/70	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
71	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
72	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
73	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
1/74	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash

Properties at risk from Flooding along the St Helena & Karingal Yallock 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
2/75	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
79	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
81	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
83	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
99	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
101	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
105	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
107	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
109	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
111	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
113	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
117	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
119	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
125	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
126	Sherbourne Road	Montmorency	Local Drainage	Flash
127	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
129	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
4/135	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
5/135	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
6/135	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
7/135	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
1/141	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
2/141	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
3/141	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
4/141	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
1/145	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
2/145	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
147	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
149	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
1/151	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
2/151	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
153	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
155	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
157	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
159	Sherbourne Road	Montmorency	Elmo Rd Drain	Flash
176	Sherbourne Road	Montmorency	Local Drainage	Flash
5/200	Sherbourne Road	Montmorency	Local Drainage	Flash
6/200	Sherbourne Road	Montmorency	Local Drainage	Flash
7/200	Sherbourne Road	Montmorency	Local Drainage	Flash
8/200	Sherbourne Road	Montmorency	Local Drainage	Flash
14	St Clems Street	St Helena	St Helena East Drain	Flash
16	St Clems Street	St Helena	St Helena East Drain	Flash
86	St Helena Road	Briar Hill	Local Drainage	Flash
88	St Helena Road	Briar Hill	Local Drainage	Flash

Properties at risk from Flooding along the St Helena & Karingal Yallock 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
183	St Helena Road	Greensborough	St Helena West Drain	Flash
191	St Helena Road	Greensborough	St Helena West Drain	Flash
193	St Helena Road	Greensborough	St Helena West Drain	Flash
195	St Helena Road	Greensborough	St Helena West Drain	Flash
197	St Helena Road	Greensborough	St Helena West Drain	Flash
339	St Helena Road	St Helena	St Helena East Drain	Flash
2	Stephens Street	Montmorency	Local Drainage	Flash
4	Stephens Street	Montmorency	Local Drainage	Flash
6	Stephens Street	Montmorency	Local Drainage	Flash
8	Stephens Street	Montmorency	Local Drainage	Flash
10	Stephens Street	Montmorency	Local Drainage	Flash
12	Stephens Street	Montmorency	Local Drainage	Flash
14	Stephens Street	Montmorency	Local Drainage	Flash
16	Stephens Street	Montmorency	Local Drainage	Flash
18	Stephens Street	Montmorency	Local Drainage	Flash
20	Stephens Street	Montmorency	Local Drainage	Flash
1	Sunderland Rise	Greensborough	St Helena West Drain	Flash
3	Sunderland Rise	Greensborough	St Helena West Drain	Flash
16	Suzanne Court	Briar Hill	Local Drainage	Flash
17	Suzanne Court	Briar Hill	Local Drainage	Flash
1	Tamboon Drive	Greensborough	St Helena East Drain	Flash
4	Tathra Place	St Helena	St Helena West Drain	Flash
5	Tathra Place	St Helena	St Helena West Drain	Flash
1	Toorac Drive	Briar Hill	Elmo Rd Drain	Flash
2	Toorac Drive	Briar Hill	Elmo Rd Drain	Flash
3	Toorac Drive	Briar Hill	Elmo Rd Drain	Flash
4	Toorac Drive	Briar Hill	Elmo Rd Drain	Flash
5	Toorac Drive	Briar Hill	Elmo Rd Drain	Flash
21	Tower Drive	Briar Hill	Local Drainage	Flash
25	Tower Drive	Briar Hill	Local Drainage	Flash
27	Tower Drive	Briar Hill	Local Drainage	Flash
29	Tower Drive	Briar Hill	Local Drainage	Flash
2/22	Turner Street	Briar Hill	Local Drainage	Flash
28	Turner Street	Briar Hill	Local Drainage	Flash
1/7	Virginia Court	Montmorency	Local Drainage	Flash
25	Weidlich Road	Eltham North	St Helena East Drain	Flash
26	Weidlich Road	Eltham North	St Helena East Drain	Flash
27	Weidlich Road	Eltham North	St Helena East Drain	Flash
28	Weidlich Road	Eltham North	St Helena East Drain	Flash
29	Weidlich Road	Eltham North	St Helena East Drain	Flash
30	Weidlich Road	Eltham North	St Helena East Drain	Flash
31	Weidlich Road	Eltham North	St Helena East Drain	Flash
32	Weidlich Road	Eltham North	St Helena East Drain	Flash
33	Weidlich Road	Eltham North	St Helena East Drain	Flash

Properties at risk from Flooding along the St Helena & Karingal Yallock 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
34	Weidlich Road	Eltham North	St Helena East Drain	Flash
35	Weidlich Road	Eltham North	St Helena East Drain	Flash
55	Weidlich Road	Eltham North	St Helena East Drain	Flash
57	Weidlich Road	Eltham North	St Helena East Drain	Flash
1/59	Weidlich Road	Eltham North	St Helena East Drain	Flash
61	Weidlich Road	Eltham North	St Helena East Drain	Flash
123	Weidlich Road	Eltham North	St Helena East Drain	Flash
125	Weidlich Road	Eltham North	St Helena East Drain	Flash
14	Wembley Close	Briar Hill	Elmo Rd Drain	Flash
16	Wembley Close	Briar Hill	Elmo Rd Drain	Flash
18	Wembley Close	Briar Hill	Elmo Rd Drain	Flash
19	Wembley Close	Briar Hill	Elmo Rd Drain	Flash
20	Wembley Close	Briar Hill	Elmo Rd Drain	Flash
2	Yangoora Place	Greensborough	St Helena East Drain	Flash
3	Yangoora Place	Greensborough	St Helena East Drain	Flash
5	Yangoora Place	Greensborough	St Helena East Drain	Flash
7	Yangoora Place	Greensborough	St Helena East Drain	Flash

Total
315

Table C5.3 – Properties at risk of flooding along the St Helena and Karingal Yallock catchment in the City of Banyule

Isolation

No major isolation risks exist for areas around St Helena & Briar Hill 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 Banyule is available via the website at:
https://static.ptv.vic.gov.au/siteassets/Maps/Localities/PDFs/1_Banyule_LAM_2016.pdf

Apart from the roads outlined below, all other essential infrastructure and services areas around St Helena, Briar Hill & Montmorency 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 St Helena, Briar Hill & Montmorency. Check the VicTraffic website for more details: http://alerts.vicroads.vic.gov.au/

Department of Transport Roads flooded in a 1% AEP (100yr ARI) event
• Karingal Drive, Greensborough east of St Helena Road Intersection
• Karingal Drive, Montmorency, south bound lane north of Sherbourne Road

Table C5.4 – Department of Transport Possible Road Closures during a flooding event

Banyule City Council Roads flooded in a 1% AEP (100yr ARI) event	
BRIAR HILL	**MONTMORENCY**
• Marden Drive	• Robert Street
• Hyacinth Street	• Virginia Court
ELTHAM NORTH	• Orr Lane
• Weidlich Road	**ST HELENA**
• Cambrian Court	• Tathra Place
GREENSBOROUGH	• St Helena Road
• Nulgarrah Crescent	• Glen Katherine Drive
• Mulgowrie Court	• St Clems Street
• St Helena Road	

Table C5.5 – Banyule 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
Briar Hill Retarding Basin, Weidlich Road	Eltham West Drain	1.78 ha	58.3 ML	51.2m AHD	51.9m AHD	6.4m / 52.4m AHD	Low	6	21 E2

Table C5.6 – Melbourne Water Retarding Basins within the St Helena & Eltham West Drains catchment in the City of Banyule

City of Banyule Retarding Basin	Location	Type	Melway Reference
Malcom Blair Reserve Retarding Basin	Cnr Karingal Drive & Weidlich Road, Briar Hill	Retarding Basin	21 E2
Dalvida Reserve	4 Dalvida Court, Eltham North	Retarding Basin/Stormwater Fed Dam	11 G12

Table C5.7 – Banyule City Council Retarding Basins within the St Helena & Eltham West Drains catchment in the City of Banyule

Sewerage Infrastructure

A small number of properties around St Helena & Briar Hill contain septic tanks (are unsewered). Consider this when conducting a risk assessment in the area. These properties are shown on **Map C** in **Appendix F.**

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 Management Plan. During significant events, VICSES will conduct incident management using multi-agency resources.

Flood Impacts and Operational Considerations (Intelligence Cards)

The tables on the following pages provide a breakdown of the possible consequences of flooding along the St Helena & Karingal Yallock Drains at various rain totals within the City of Banyule. 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:

- St Helena & Karingal Yallock Drains

FLOOD INTELLIGENCE CARD – ST HELENA & KARINGAL YALLOCK DRAINS (UNGAUGED)

Version 4 – June 2020

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. ***Scan the QR code for the current rain totals for this gauge.***

CLOSEST RAIN GAUGE:	**Plenty River, Greensborough**
LOCATION:	**East bank of River along the Maroondah Aqueduct, Greensborough**
WEBSITE:	https://www.melbournewater.com.au/water/rainfall-and-river-levels#/reader/229615A

MELWAY REF:	**10 J9**
GAUGE NUMBER:	**229615A**
GAUGE TYPE:	**Stream Level & Rain**

Design Rainfall Depths (mm) – *Indication of Possible Flooding*	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
22mm in 10 mins; 36mm in 30 mins; 46mm in 1 hour; 59mm in 2 hours; 68mm in 3 hours; or 85mm 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)	• Note: It is not known at what level infrastructure contained below starts being flooded **Properties at Flood Risk** **315 Properties in Total** **Elmo Rd Drain** • 2 Elmo Road, Montmorency • 2/14, 3/14, 16, 2/26-28, 3/26-28, 4/26-28, 30 & 2/32 Fernside Avenue, Briar Hill • 2, 4, 6 & 6-6A Hibiscus Avenue, Briar Hill • 6 & 2/8 Hughes Street, Montmorency • 1, 1/1, 2/1 & 3 Hyacinth Street, Briar Hill • 3, 5 & 7 Karingal Drive, Montmorency • 1 Lorraine Drive, Briar Hill • 1 & 3 Outlook Crescent, Briar Hill • 8, 4/10-12, 5/10-12, 6/10-12 & 7/10-12 Porter Street, Briar Hill • 3/68, 2/70, 71, 72, 73, 1/74, 2/75, 79, 81, 83, 99, 101, 105, 107, 109, 111, 113, 117, 119, 125, 126, 127, 129, Units 4-7/135, Units 1-4/141, 1/145, 2/145, 147, 149, 1/151, 2/151, 153, 155, 157 & 159 Sherbourne Road, Montmorency • 1, 2, 3, 4 & 5 Toorac Drive, Briar Hill • 14, 16, 18, 19 & 20 Wembley Close, Briar Hill **Local Drainage** • 2, 4, 6, 8, 10, 12, 14, 16 & 18 Allens Road, Montmorency • 1 & 6 Aminya Place, Briar Hill	SES to respond to RFA's on a case by case basis

Design Rainfall Depths (mm) – *Indication of Possible Flooding*	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		• 53 & 55 Belmont Crescent, Montmorency • 1/127, 2/127, 3/127, 233, 235, 237, 239 & 245 Bolton Street, Eltham • 35 Bonnie Doone Street, Briar Hill • 2/19, 21A, 4/23, 29, 31, 33, 35 & 39 Calrossie Avenue, Montmorency • 3, 3A, 4, 5, 6, 8, 10 & 12A Cressy Street, Montmorency • 5 Dixon Court, Briar Hill • 147 & 149 Karingal Drive, Briar Hill • 41 Kirwana Grove, Montmorency • 59 Leach Street, Briar Hill • 1/25, 2/25, 26, 27 & 28 Lilicur Road, Montmorency • 379, 381, 383, 385, 387, 389, 391, 393, 397, 401, 403, 405, 407, 409, 411, 413, 1/415, 2/415, 417, 419, 421, 1/425, 427, 429, 431, 433 & 1/435 Main Road, Montmorency • 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26 & 28 Marden Drive, Briar Hill • 3, 4/5, 5/5, 6/5, 27 & 29 Mccarthy Grove, Montmorency • 2, 6, 3/12 & 3/14 Meadow Crescent, Montmorency • 216, 218, 220, 222, 224, 1/226 & 2/226 Mountain View Road, Briar Hill • 5, 7 & 29 Napier Crescent, Montmorency • 35, 37 & 39 Orr Lane, Montmorency • 119, 121, 1/123, 2/123, 125, 131, 133, 139, 147, 149, 165A, 167, Units 3-6/171, 177-183, 185, 187, 4/189 & 5/189 Rattray Road, Montmorency • 1/17, 19 & 21 Robert Street, Montmorency • 3, 1/5, 2/5, 14, 16, 18, 19, 19A, 20-32, 21, 36, 2/44 & 2/48 Sackville Street, Montmorency • 176, 5/200, 6/200, 7/200 & 8/200 Sherbourne Road, Montmorency • 86 & 88 St Helena Road, Briar Hill • 2, 4, 6, 8, 10, 12, 14, 16, 18 & 20 Stephens Street, Montmorency • 16 & 17 Suzanne Court, Briar Hill • 21, 25, 27 & 29 Tower Drive, Briar Hill • 2/22 & 28 Turner Street, Briar Hill • 1/7 Virginia Court, Montmorency **St Helena East Drain** • 10, 15 & 16 Cambrian Court, Eltham North • 29, 31, 33, 35 & 37 Maxine Drive, St Helena • 14 & 16 St Clems Street, St Helena • 339 St Helena Road, St Helena • 1 Tamboon Drive, Greensborough • 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 55, 57, 1/59, 61, 123 & 125 Weidlich Road, Eltham North	

Design Rainfall Depths (mm) – *Indication of Possible Flooding*	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		• 2, 3, 5 & 7 Yangoora Place, Greensborough **St Helena West Drain** • 5, 6, 7 & 8 Eliza Close, Greensborough • 94, 118, 128, 130, 132 & 136 Karingal Drive, Greensborough • 2, 3, 4, 5, 11 & 12 Mulgowrie Court, Greensborough • 7 & 9 Nulgarrah Crescent, Greensborough • 183, 191, 193, 195 & 197 St Helena Road, Greensborough • 1 & 3 Sunderland Rise, Greensborough • 4 & 5 Tathra Place, St Helena **Community Infrastructure Flooded** **St Helena West Drain** • Briar Hill Preschool, 118 Karingal Drive, Greensborough • Malcolm Blair Reserve, 118 Karingal Drive, Greensborough **St Helena East Drain** • Liscombe House Aged Care Facility, 339 St Helena Road, St Helena may have access restricted via Charles Hartley Drive and Percy Briggs Drive for a short period **Elmo Road Drain** • Sherbourne Road Medical Clinic, 111 Sherbourne Road, Montmorency **Essential Infrastructure Impacted** • Bus Routes 513, 517, 518 & 902 likely impacted with flooding on Karingal Road, Sherbourne Road or St Helena Road **Water Over Road (Over 300mm Depth)** **St Helena West Drain** • Tathra Place, St Helena • Nulgarrah Crescent, Greensborough • Mulgowrie Court, Greensborough • St Helena Road, Greensborough near Karingal Drive Intersection • Marden Drive, Briar Hill • Karingal Drive, Greensborough east of St Helena Road Intersection **St Helena East Drain** • St Helena Road, St Helena north of Allumba Drive • Glen Katherine Drive, St Helena • St Clems Street, St Helena • Weidlich Road, Eltham North between Karingal Drive and St Clems Street • Cambrian Court, Eltham North **Eltham West Drain** • Karingal Drive, Montmorency south bound lane north of Sherbourne Road **Elmo Road Drain** • Hyacinth Street, Briar Hill **Local Drains**	Community infrastructures to invoke emergency evacuation plan if required Council to setup road closure signage as required

Design Rainfall Depths (mm) – *Indication of Possible Flooding*	Annual Exceedance Probability (% AEP)	Consequence / Impact	Operational Considerations
		• Robert Street, Montmorency • Virginia Court, Montmorency **Eltham Park Drain** • Orr Lane, Montmorency	

Table C5.9 – Breakdown of possible consequences at various rainfall intensities around the St Helena and Karingal Yallock Drains with operational considerations

APPENDIX D - FLOOD EVACUATION ARRANGEMENTS

The Victoria Police are responsible for evacuation. The decision to evacuate rests with the Control agency in conjunction with Police and available expert advice. Consideration must be given to the area, which is to be evacuated, the route to be followed, the means of transport and the location to which evacuees will be asked to attend.

Once the decision to evacuate has been made, the Banyule MEMO and MRM should be contacted to assist in the implementation of the evacuation. Banyule City Council will provide advice regarding the most suitable emergency relief centre and other resources that may be required (e.g. public health, emergency relief considerations or requirements and special needs groups).

Assistance in an evacuation may be provided by the Victorian State Emergency Service. The North West Metropolitan Region (NWMR) Councils, have established a shared resources protocol that outlines operational arrangements to respond to the relief and recovery aspects of an emergency and provides support resources to affected Councils in the region.

NWMR Councils have developed a standard model of service delivery that takes into consideration staff recruitment, training, resource sharing, Emergency Relief Centre (ERC) plans, support agencies, and equipment. The development of the NWMR model is intended to act as a best practice guide and is in no way a prescriptive process for participation in the NWMR model but simply a recommended set of procedures and policies to activate ERCs and transition them into community recovery centres.

Emergency Relief Centres

A relief centre is a building in which a coordinated service response is provided to support affected communities in the restoration of their emotional, social, economic and physical wellbeing.

In the event of an emergency Banyule Council will activate its designated relief centre/s at the request of the ICC. The NWMR Emergency Relief Centre Standard Operating Guidelines will guide the process in the setup and operating of the Banyule Relief Centre/s.

The available relief centres have been assessed found to be potentially suitable for use in times of emergency. Careful consideration must be given to the prevailing circumstances and number of people needing assistance when selecting a site or sites. A full list of the identified venues are available in the MEMP.

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 by the IC in consultation with the MEMO, MERC, DFFH, Health Commander and other key agencies and expert advice (CMA's and Flood Intelligence specialists).

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 MEMO, MERC, DFFH and other key agencies and expert advice (CMA's and Flood Intelligence specialists).

Phase 3 – Withdrawal

Withdrawal will be controlled by VicPol. VICSES may provide advice regarding the most appropriate evacuation routes and locations for at-risk communities to evacuate to.

VICSES, CFA, AV and Local Government will provide resources where available to support VicPol/DoT 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 at the request of the IC or via the appointed VicPol Evacuation Manager.

Landing zones for aircraft will be determined by the following:

- The IC will determine the requirements for airborne resources.
- The State Aircraft Desk will deploy and coordinate air resources.
- The pilot in command will determine the safest location to land.

Predetermined landing site is available off Liberty Parade near Bell Street, Heidelberg West at **-37° 44' 55.40", +145° 2' 12.69"**

Vulnerable People in Emergencies

Vulnerable people living in the community will be identified through funded agencies, community service organisations or other community networks. Such people will be assessed against the definition of a vulnerable person and may qualify for registration on the Vulnerable Persons Register (VPR). A list of facilities where vulnerable people may be located, is also kept by Council. These may be funded facilities including education, health and childcare, Commonwealth regulated aged care facilities and other locally identified facilities. Further information on Vulnerable People in Emergencies can be obtained from Banyule City Council's MRM.

Phase 4 – Shelter

Relief Centres and/or assembly areas which cater for people's basic needs may be established to meet the immediate needs of people affected by flooding. Relief Centres used will be determined dependant on the location and size of the event. Relief Centres and/or Assembly Areas that could be utilised are listed in the MEMP.

VicPol in consultation with VICSES will liaise with Council and DFFH (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

The need for animal shelter compounds will be determined dependant on the location and size of the event. These will be managed by the MEMO and Banyule City Council's Animal Management Officer at facilities detailed in the Animal Management Plan.

Caravans

There are no Caravan parks in the City of Banyule.

Phase 5 – Return

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

The IC, 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 or storm. This may include road closures affecting school bus routes, water treatment plant affecting potable water supplies etc.

Details about response arrangements to disruptions are contained in the Banyule MEMP.

Essential Infrastructure and Property Protection

Essential Infrastructure and properties at risk of inundation have been noted in Flood Intelligence Cards in **Appendix C**.

Banyule City Council will establish a sandbag collection point if required at a location to be determined by the Incident Controller and MEMO.

Rescue

The following resources are available within the City of Banyule to assist with rescue operations:

Aircraft are available through state aircraft unit. Boats available through VICSES RDO. VicPol resources available via line of control depending on incident scale (eg. ESTA to VicPol RCC, MERC, EMLO, RERC etc).

Requests for Banyule City Council resources to support rescue activities should be forwarded to the MEMO, if an ICC has been established.

Resources are available from the VICSES Heidelberg Unit and VICSES Nillumbik Unit to assist with rescue operations – specific details of equipment and resources available can be obtained from the VICSES RDO.

No high-risk areas/communities (i.e. low-lying islands where rescues might be required) have been identified, other than the occurrence of flash flooding over roadway

APPENDIX E – STORM AND FLOOD WARNING SYSTEMS

Storm and Flood Warning

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

The method of alerting people to the need for evacuation will depend on a number of factors. Consideration should be given to:

- The type of emergency
- The number of people affected
- The ethnic origins of the affected people
- The requirements of any special needs' groups
- For prolonged emergencies, information can be broadcast on Local Radio including ABC 774 AM.

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 RDO or the established ICC will normally be responsible for drafting, authorising and issuing of Flood Bulletins, using the VicEmergency system.

Flood Bulletins should refer to the warning title within the Bulletin header, 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

Melbourne Water

APPENDIX F – MAPS

Overview

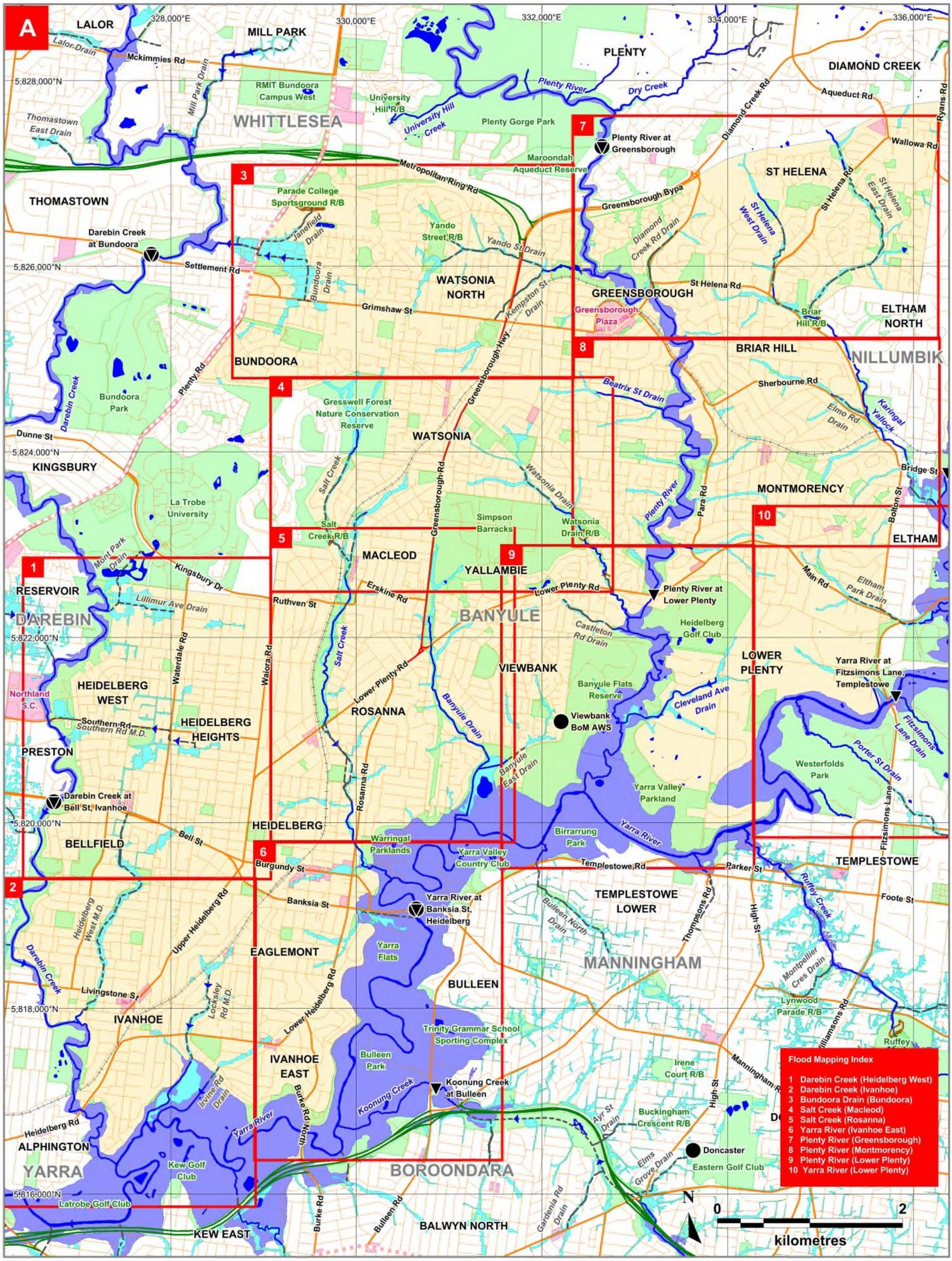
Maps considered useful to flood response are included in this Appendix. They include:

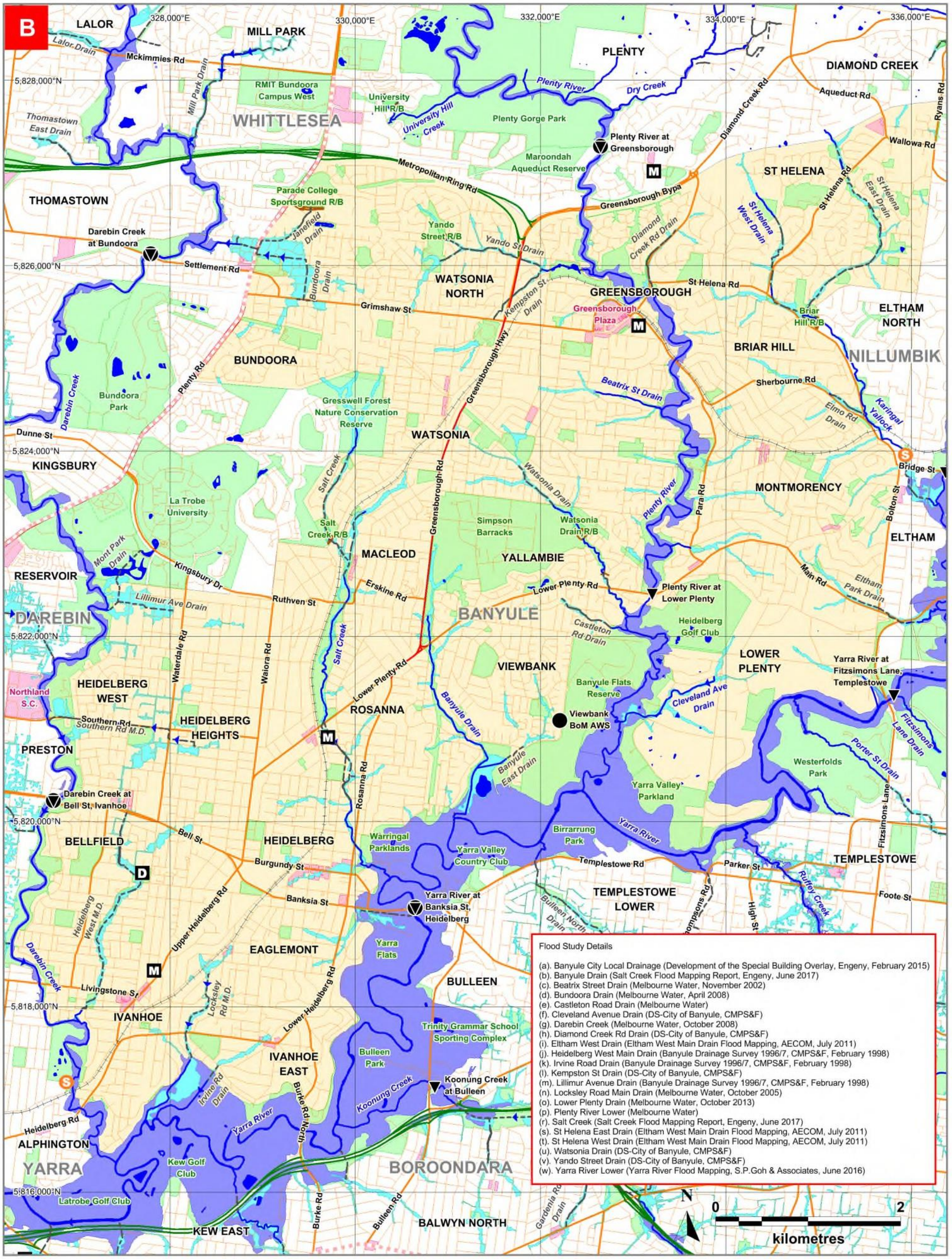
- A map outlining a series of flooding hot spot maps within the City of Banyule.
- A map showing the Municipal boundary together with the open waterways and underground stormwater drainage pipe network within the City of Banyule and the 1% AEP (100-year ARI) flood extents (sourced from Melbourne Water GIS).
- A set of 10 maps showing flooding hot spots within the City of Banyule together with the 1% AEP (100-year ARI) flood extents (sourced from the Melbourne Water GIS).
- A map outlining the properties not connected to the Sewer network within the City of Banyule (sourced from City of Banyule).
- Schematics detailing the drainage catchments relevant for this municipality.
    - 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

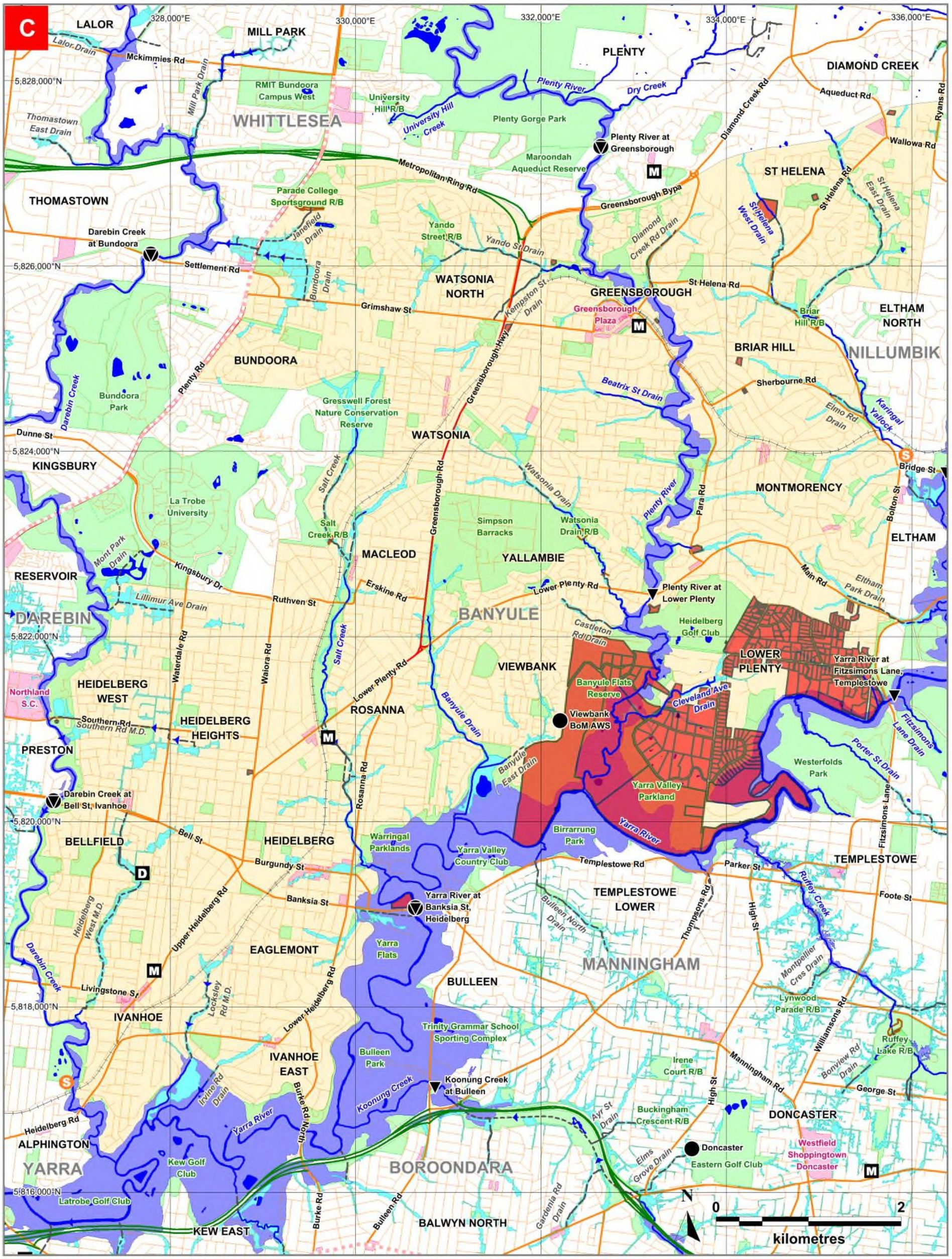
Note that:

- 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 Banyule 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 Environment, Land, Water & Planning website https://mapshare.vic.gov.au/vicplan/.
- Maps showing 1 in 100-year ARI (1% AEP) flood extents and floodway's (together with volume, height and water quality data) are shown at the Victorian Water Resources website http://mapshare.maps.vic.gov.au/MapShareVic/index.html?viewer=MapShareVic.PublicSite&locale=en-AU
- 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.

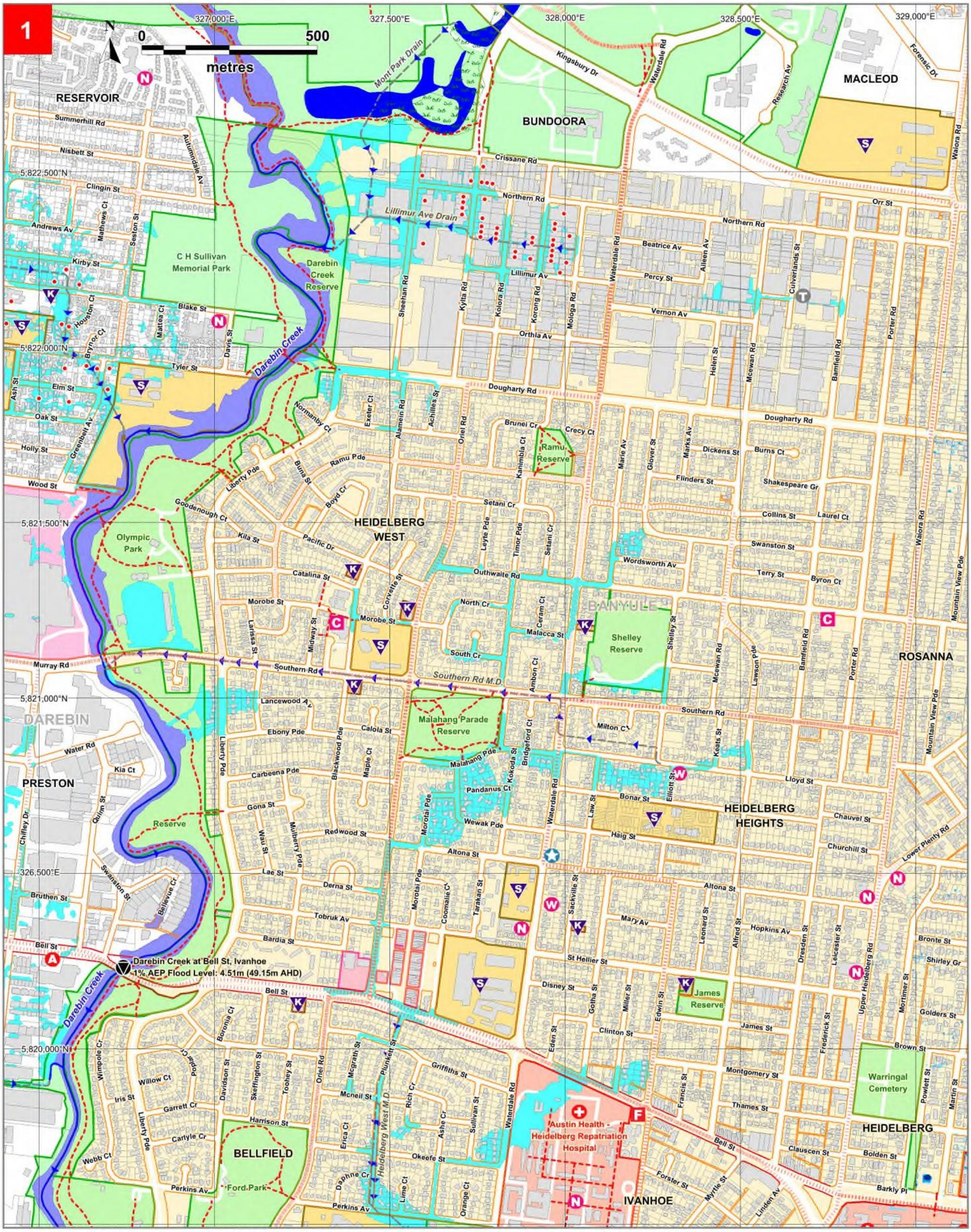
City of Banyule Municipal Maps (sourced Melbourne Water GIS)

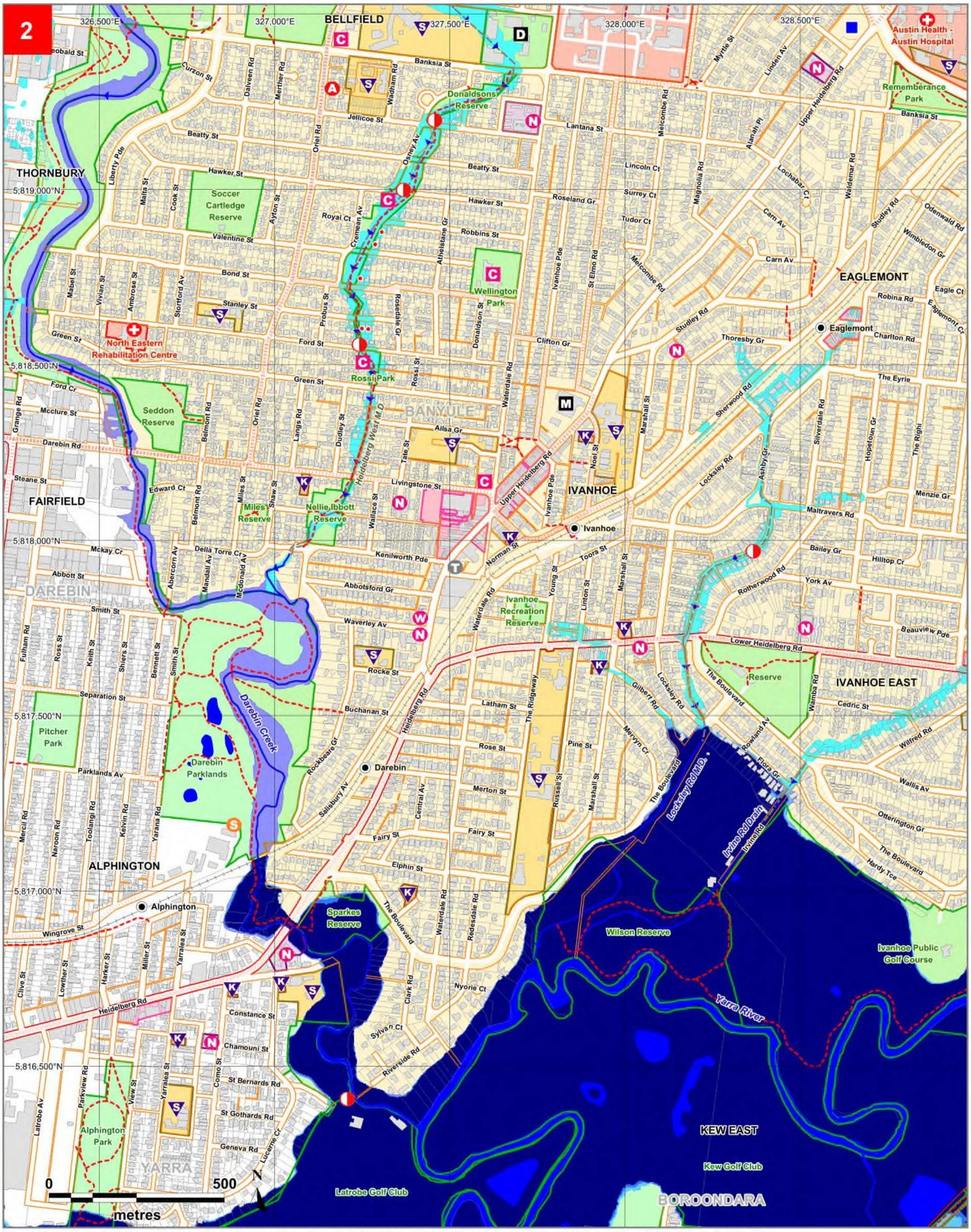


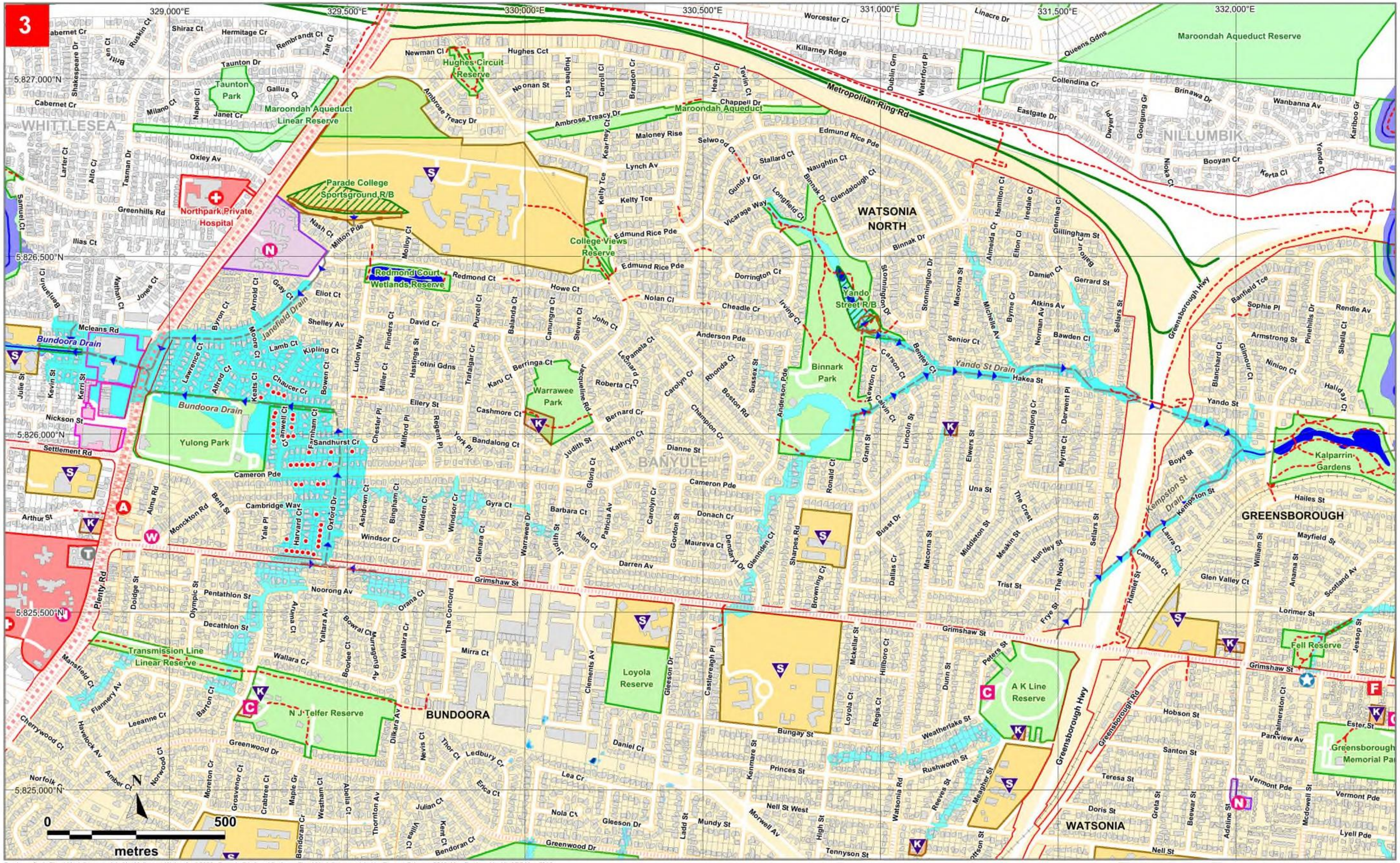

B
LALOR
MILL PARK
PLENTY
DIAMOND CREEK
328,000°E
330,000°E
332,000°E
334,000°E
336,000°E
5,828,000°N
5,826,000°N
5,824,000°N
5,822,000°N
5,820,000°N
5,818,000°N
Lalor Drain
Mckimmies Rd
Mill Park Drain
RMIT Bundoora Campus West
University Hill R/B
University Hill Creek
Plenty River
Dry Creek
Aqueduct Rd
Ryans Rd
Diamond Creek Rd
Thomastown East Drain
WHITTLESEA
Plenty Gorge Park
Plenty River at Greensborough
Maroondah Aqueduct Reserve
Wallowa Rd
ST HELENA
Metropolitan Ring Rd
Greensborough Bypa
St Helena Rd
St Helena East Drain
St Helena West Drain
THOMASTOWN
Parade College Sportsground R/B
Yando Street R/B
Yando St Drain
Diamond Creek Rd Drain
Darebin Creek at Bundoora
Jenefield Drain
Settlement Rd
Bundoora Drain
WATSONIA NORTH
GREENSBOROUGH
St Helena Rd
Grimshaw St
Kempston St Drain
Greensborough Plaza
Briar Hill R/B
ELTHAM NORTH
BRIAR HILL
NILLUMBIK
BUNDOORA
Plenty Rd
Darebin Creek
Bundoora Park
Greensborough Hwy
Beatrix St Drain
Sherbourne Rd
Elmo Rd Drain
Karingal Yallock
Gresswell Forest Nature Conservation Reserve
WATSONIA
Dunne St
Bridge St
KINGSBURY
Salt Creek
Greensborough Rd
Watsonia Drain
Simpson Barracks
Watsonia Drain R/B
Plenty River
Para Rd
MONTMORENCY
Bolton St
ELTHAM
La Trobe University
Salt Creek R/B
MACLEOD
YALLAMBIE
Mont Park Drain
Kingsbury Dr
Erskine Rd
Lower Plenty Rd
Plenty River at Lower Plenty
Main Rd
Eltham Park Drain
RESERVOIR
Lillimur Ave Drain
Ruthven St
BANYULE
Castleton Rd Drain
Heidelberg Golf Club
DAREBIN
Waterdale Rd
Waiora Rd
Salt Creek
VIEWBANK
LOWER PLENTY
Yarra River at Fitzsimons Lane, Templestowe
Northland S.C.
HEIDELBERG WEST
Lower Plenty Rd
Banyule Flats Reserve
Cleveland Ave Drain
Banyule Drain
Viewbank BoM AWS
Fitzsimons Lane Drain
Southern Rd
Southern Rd M.D.
HEIDELBERG HEIGHTS
ROSANNA
Porter St Drain
PRESTON
Rosanna Rd
Banyule East Drain
Westerfolds Park
Darebin Creek at Bell St, Ivanhoe
Yarra Valley Parkland
Fitzsimons Lane
Bell St
Warringal Parklands
Birrarrung Park
Yarra River
BELLFIELD
HEIDELBERG
Yarra Valley Country Club
TEMPLESTOWE
Templestowe Rd
Parker St
Burgundy St
Ruffey Creek
Foote St
Banksia St
Yarra River at Banksia St, Heidelberg
TEMPLESTOWE LOWER
Bulleen North Drain
High St
Upper Heidelberg Rd
Heidelberg West M.D.
EAGLEMONT
Yarra Flats
Darebin Creek
Livingstone St
Locksley Rd M.D.
BULLEEN
IVANHOE
Lower Heidelberg Rd
Trinity Grammar School Sporting Complex
IVANHOE EAST
Bulleen Park
Koonung Creek at Bulleen
Irvine Rd Drain
Burke Rd North
Koonung Creek
Heidelberg Rd
ALPHINGTON
Yarra River
YARRA
Kew Golf Club
BOROONDARA
Latrobe Golf Club
Burke Rd
Bulleen Rd
BALWYN NORTH
Gardenia Rd Drain
KEW EAST
N
0
2
kilometres
Flood Study Details
(a). Banyule City Local Drainage (Development of the Special Building Overlay, Engeny, February 2015)
(b). Banyule Drain (Salt Creek Flood Mapping Report, Engeny, June 2017)
(c). Beatrix Street Drain (Melbourne Water, November 2002)
(d). Bundoora Drain (Melbourne Water, April 2008)
(e). Castleton Road Drain (Melbourne Water)
(f). Cleveland Avenue Drain (DS-City of Banyule, CMPS&F)
(g). Darebin Creek (Melbourne Water, October 2008)
(h). Diamond Creek Rd Drain (DS-City of Banyule, CMPS&F)
(i). Eltham West Drain (Eltham West Main Drain Flood Mapping, AECOM, July 2011)
(j). Heidelberg West Main Drain (Banyule Drainage Survey 1996/7, CMPS&F, February 1998)
(k). Irvine Road Drain (Banyule Drainage Survey 1996/7, CMPS&F, February 1998)
(l). Kempston St Drain (DS-City of Banyule, CMPS&F)
(m). Lillimur Avenue Drain (Banyule Drainage Survey 1996/7, CMPS&F, February 1998)
(n). Locksley Road Main Drain (Melbourne Water, October 2005)
(o). Lower Plenty Drain (Melbourne Water, October 2013)
(p). Plenty River Lower (Melbourne Water)
(r). Salt Creek (Salt Creek Flood Mapping Report, Engeny, June 2017)
(s). St Helena East Drain (Eltham West Main Drain Flood Mapping, AECOM, July 2011)
(t). St Helena West Drain (Eltham West Main Drain Flood Mapping, AECOM, July 2011)
(u). Watsonia Drain (DS-City of Banyule, CMPS&F)
(v). Yando Street Drain (DS-City of Banyule, CMPS&F)
(w). Yarra River Lower (Yarra River Flood Mapping, S.P.Goh & Associates, June 2016)
CITY OF BANYULE
Version 3: May 2018
B - 1% AEP (100yr ARI) Flood Extent
1% AEP Riverine Flood Extent
1% AEP Flash Flood Extent
Reserve / Area of Interest
Waterbody / Reservoir
Melbourne Water Retarding Basin
Commercial Precinct
River Level Gauge
Rain Gauge
Municipal Building
Municipal Depot
SES LHQ
River / Creek
Melbourne Water Stormwater Drain
Embankment
Levee
Tramway
SES
VICTORIA State Government
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.


C
LALOR
MILL PARK
PLENTY
DIAMOND CREEK
328,000°E
330,000°E
332,000°E
334,000°E
336,000°E
5,828,000°N
5,826,000°N
5,824,000°N
5,822,000°N
5,820,000°N
5,818,000°N
Lalor Drain
Mckimmies Rd
Mill Park Drain
RMIT Bundoora Campus West
University Hill R/B
University Hill Creek
Plenty River
Dry Creek
Aqueduct Rd
Ryans Rd
Thomastown East Drain
WHITTLESEA
Plenty Gorge Park
Plenty River at Greensborough
Diamond Creek Rd
Wallowa Rd
Maroondah Aqueduct Reserve
Metropolitan Ring Rd
ST HELENA
St Helena Rd
St Helena East Drain
THOMASTOWN
Parade College Sportsground R/B
Greensborough Bypa
St Helena West Drain
Janefield Drain
Yando Street R/B
Darebin Creek at Bundoora
Yando St Drain
Diamond Creek Rd Drain
Settlement Rd
Bundoora Drain
WATSONIA NORTH
GREENSBOROUGH
St Helena Rd
Grimshaw St
Kempston St Drain
Greensborough Plaza
Briar Hill R/B
ELTHAM NORTH
BUNDOORA
Plenty Rd
BRIAR HILL
NILLUMBIK
Darebin Creek
Bundoora Park
Greensborough Hwy
Beatrix St Drain
Sherbourne Rd
Gresswell Forest Nature Conservation Reserve
Elmo Rd Drain
Karingal Yallock
Dunne St
WATSONIA
KINGSBURY
Salt Creek
Watsonia Drain
Bridge St
MONTMORENCY
La Trobe University
Simpson Barracks
Watsonia Drain R/B
Plenty River
Para Rd
Bolton St
Salt Creek R/B
MACLEOD
YALLAMBIE
ELTHAM
Greensborough Rd
Mont Park Drain
RESERVOIR
Kingsbury Dr
Erskine Rd
Lower Plenty Rd
Plenty River at Lower Plenty
Main Rd
Eltham Park Drain
Lillimur Ave Drain
Ruthven St
DAREBIN
BANYULE
Castleton Rd/Drain
Heidelberg Golf Club
Waterdale Rd
Waiora Rd
Salt Creek
LOWER PLENTY
Yarra River at Fitzsimons Lane, Templestowe
VIEWBANK
Banyule Flats Reserve
Cleveland Ave Drain
HEIDELBERG WEST
Northland S.C.
Lower Plenty Rd
Viewbank BoM AWS
Banyule Drain
Fitzsimons Lane Drain
Southern Rd
Southern Rd M.D.
HEIDELBERG HEIGHTS
ROSANNA
Porter St Drain
PRESTON
Rosanna Rd
Banyule East Drain
Westerfolds Park
Darebin Creek at Bell St, Ivanhoe
Yarra Valley Parkland
Yarra River
Fitzsimons Lane
Bell St
HEIDELBERG
Warringal Parklands
Birrarrung Park
BELLFIELD
Yarra Valley Country Club
TEMPLESTOWE
Burgundy St
Templestowe Rd
Parker St
Upper Heidelberg Rd
Yarra River at Banksia St, Heidelberg
TEMPLESTOWE LOWER
Ruffey Creek
Foote St
Banksia St
Bulleen North Drain
Thompsons Rd
High St
EAGLEMONT
Yarra Flats
MANNINGHAM
Montpellier Cres Drain
Livingstone St
BULLEEN
Lynwood Parade R/B
Locksley Rd M.D.
Lower Heidelberg Rd
IVANHOE
Trinity Grammar School Sporting Complex
Williamsons Rd
Ruffey Lake R/B
IVANHOE EAST
Bulleen Park
Irene Court R/B
Bonview Rd Drain
Koonung Creek at Bulleen
Manningham Rd
George St
Irvine Rd Drain
Koonung Creek
Ayr St Drain
Buckingham Crescent R/B
DONCASTER
Heidelberg Rd
Burke Rd North
Yarra River
ALPHINGTON
Elms Grove Drain
Doncaster
Westfield Shoppingtown Doncaster
Kew Golf Club
Eastern Golf Club
YARRA
BOROONDARA
Latrobe Golf Club
Burke Rd
Bulleen Rd
Gardenia Rd Drain
KEW EAST
BALWYN NORTH
N
0
2
kilometres
CITY OF BANYULE
Version 3: May 2018
C - Unsewered Properties
1% AEP Riverine Flood Extent
1% AEP Flash Flood Extent
Reserve / Area of Interest
Waterbody / Reservoir
Melbourne Water Retarding Basin
Commercial Precinct
Unsewered Property
Stream Level Gauge
Rain Gauge
Municipal Building
Municipal Depot
River / Creek
Melbourne Water Stormwater Drain
Embankment
Levee
Tramway
SES LHQ
SES
VICTORIA State Government
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.

Flood Extent Maps (sourced Melbourne Water GIS)




2
326,500°E
327,000°E
327,500°E
328,000°E
328,500°E
BELLFIELD
THORNBURY
5,819,000°N
5,818,500°N
5,818,000°N
5,817,500°N
5,817,000°N
5,816,500°N
FAIRFIELD
DAREBIN
BANYULE
IVANHOE
IVANHOE EAST
EAGLEMONT
ALPHINGTON
KEW EAST
BOROONDARA
YARRA
Soccer Cartledge Reserve
Donaldsons Reserve
Wellington Park
Rossi Park
Seddon Reserve
Miles Reserve
Nellie Ibbott Reserve
Ivanhoe Recreation Reserve
Darebin Parklands
Pitcher Park
Alphington Park
Sparkes Reserve
Wilson Reserve
Rememberance Park
Reserve
Eaglemont
Ivanhoe
Darebin
Alphington
Austin Health - Austin Hospital
North Eastern Rehabilitation Centre
Darebin Creek
Yarra River
Latrobe Golf Club
Kew Golf Club
Ivanhoe Public Golf Course
Irvine Rd Drain
Lockstey Rd M.D.
Banksia St
Jellicoe St
Beatty St
Hawker St
Valentine St
Bond St
Stanley St
Green St
Ford St
Ford Cr
Darebin Rd
Steane St
Edward Ct
Mcclure St
Mckay Cr
Della Torre Cr
Abbott St
Smith St
Separation St
Parklands Av
Waverley Av
Rocke St
Buchanan St
Abbotsford Gr
Kenilworth Pde
Livingstone St
Ailsa Gr
Fairy St
Elphin St
Wingrove St
Constance St
Chamouni St
St Bernards Rd
St Gothards Rd
Geneva Rd
Heidelberg Rd
Lower Heidelberg Rd
Upper Heidelberg Rd
Clifton Gr
Thoresby Gr
Studley Rd
Carn Av
Roseland Gr
Lantana St
Lincoln Ct
Surrey Ct
Tudor Ct
Robbins St
Latham St
Rose St
Merton St
Pine St
Merrynt Cr
Gilbert Rd
Cedric St
Wilfred Rd
Wallis Av
Otterington Gr
The Boulevard
Hardy Tce
Maltravers Rd
Bailey Gr
Hilltop Cr
York Av
Rotherwood Rd
Beauview Pde
Menzie Gr
Sherwood Rd
Silverdale Rd
Hopetoun Gr
The Righi
Locksley Rd
Ashby Gr
Robina Rd
Eagle Ct
Eaglemont Cr
Charlton Rd
The Eyrie
Odenwald Rd
Wimbledon Gr
Waldemar Rd
Lochabar Ct
Allanah Pl
Myrtle St
Linden Av
Melcombe Rd
Magnolia Rd
Ivanhoe Pde
St Elmo Rd
Roseland Gr
Osney Av
Oriel Rd
Wadham Rd
Merther Rd
Dalveen Rd
Curzon St
Liberty Pde
Malta St
Cook St
Ayton St
Cremean Av
Alhelstane Gr
Donaldson St
Probus St
Siortford Av
Ambrose St
Vivian St
Mabel St
Rosedale Gr
Rossi St
Waterdale Rd
Dudley St
Langs Rd
Belmont Rd
Oriel Rd
Grange Rd
Tate St
Noel St
Marshall St
Young St
Limon St
Norman St
Toora St
Wallace St
Miles St
Shaw St
Mandall Av
Mcdonald Av
Abercorn Av
Fulham Rd
Ross St
Keith St
Shiers St
Bennett St
Smith St
Rockbeare Gr
Salisbury Av
Central Av
Russell St
Mercil Rd
Naroon Rd
Toolangi Rd
Kelvin Rd
Yarana Rd
Clive St
Lowther St
Harker St
Miller St
Yarralea St
Parkview Rd
View St
Como St
Latrobe Av
Lucerne Cr
Clark Rd
Nyorie Ct
Sylvan Ct
Riverside Rd
Redesdale Rd
The Ridgeway
Irvine Rd
Inverlo Rd
0
500
metres
N
Darebin Creek flood modelling completed by Melbourne Water, October 2008. Yarra River flood modelling completed by S.P.Goh & Associates, June 2016. Banyule City Local Drainage Flood Modelling completed by Engeny, February 2015. Map Produced by VicSES May 2018.
CITY OF BANYULE
1% AEP (100yr ARI) Flooding
2. Darebin Creek (Ivanhoe)
Building
Waterbody
1% AEP Riverine Flood Extent (Depth Unavailable)
1% AEP Flash Flood Extent (Depth Unavailable)
Area Of Interest
Commercial Precinct
River / Creek
Melbourne Water Stormwater Drain
Bicycle / Walking Trail
Bus Routes (PTV)
School / College
Kindergarten / Child Care
Ambulance Station
1% Annual Chance Flood Depth
Greater than 60cm
Between 30cm to 60cm
Up to 30cm
Community Centre
Place Of Worship
Victoria State Emergency Service
Nursing Home / Aged Care
Telephone Exchange
Sewer Emergency Relief Point
Retail Water Storage
1% AEP Over-Floor Flooding Risk
Hospital
Municipal Offices
Municipal Depot
BANYULE
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.



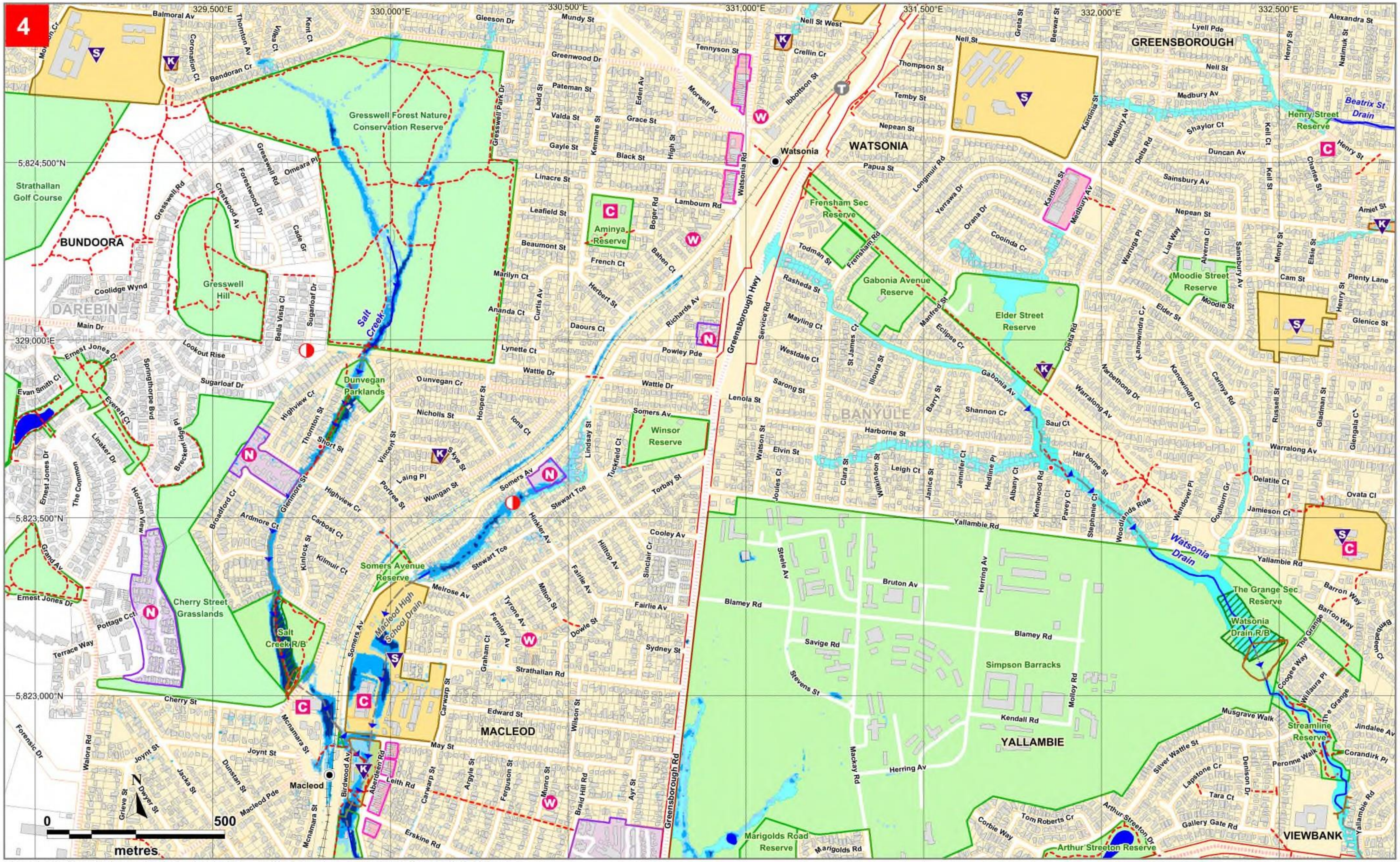
Bundoora Drain Flood Modelling completed by Melbourne Water, April 2008. Banyule City Local Drainage Flood Modelling completed by Engeny, February 2015. Map Produced by VicSES May 2018.

CITY OF BANYULE

1% AEP (100yr ARI) Flooding

3. Bundoora Drain (Bundoora)

- Building
- Area of Interest
- Waterbody
- 1% AEP Flash Flood Extent (Depth Unavailable)
- 1% AEP Riverine Flood Extent (Depth Unavailable)
- Shopping Precinct
- Melbourne Water Retarding Basin
- Creek / Channel
- Melbourne Water Stormwater Drain
- Bicycle / Walking Trail
- Embankment
- Bus Route (PTV)
- Ambulance Station
- Hospital
- Community Centre
- Place Of Worship
- Nursing Home / Aged Care
- Fire Station
- Kindergarten / Childcare
- School / College
- Police Station
- Telephone Exchange
- 1% AEP Over-Floor Flooding Risk



Salt Creek Flood Modelling completed by Engeny, June 2017. Banyule City Local Drainage Flood Modelling completed by Engeny, February 2015. Map Produced by VicSES May 2018.

CITY OF BANYULE

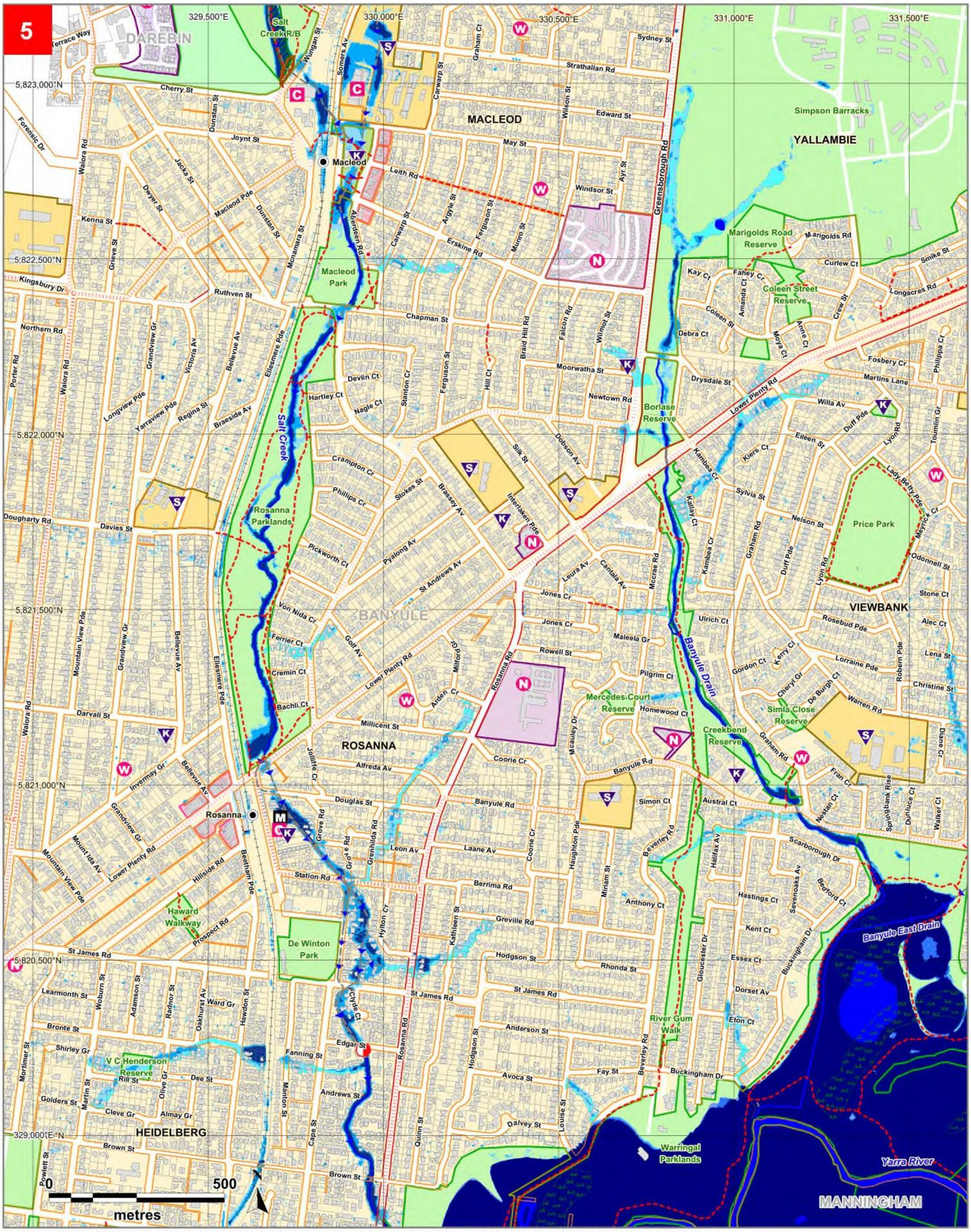
1% AEP (100yr ARI) Flooding

4. Salt Creek (Macleod)

- Building
- Area of Interest
- Waterbody

1% Annual Chance Flood Depth

- Greater thn 60cm
- Up to 30cm to 60cm
- Up to 30cm
- 1% AEP Flash Flood Extent (Depth Unavailable)
- Shopping Precinct
- Melbourne Water Retarding Basin
- Creek / Channel
- Melbourne Water Stormwater Drain
- Bicycle / Walking Trail
- Embankment
- Bus Route (PTV)
- Community Centre
- Place Of Worship
- Nursing Home / Aged Care
- Kindergarten / Childcare
- School / College
- Sewer Emergency Relief Point
- Telephone Exchange



Salt Creek flood modelling completed by Engeny, June 2017. Yarra River flood modelling completed by S.P.Goh & Associates, June 2016. Banyule City Local Drainage Flood Modelling completed by Engeny, February 2015. Map Produced by VicSES May 2018.

CITY OF BANYULE

1% AEP (100yr ARI) Flooding

5. Salt Creek (Rosanna)

- Building
- Waterbody
- 1% AEP Flash Flood Extent (Depth Unavailable)
- Area Of Interest
- Commercial Precinct

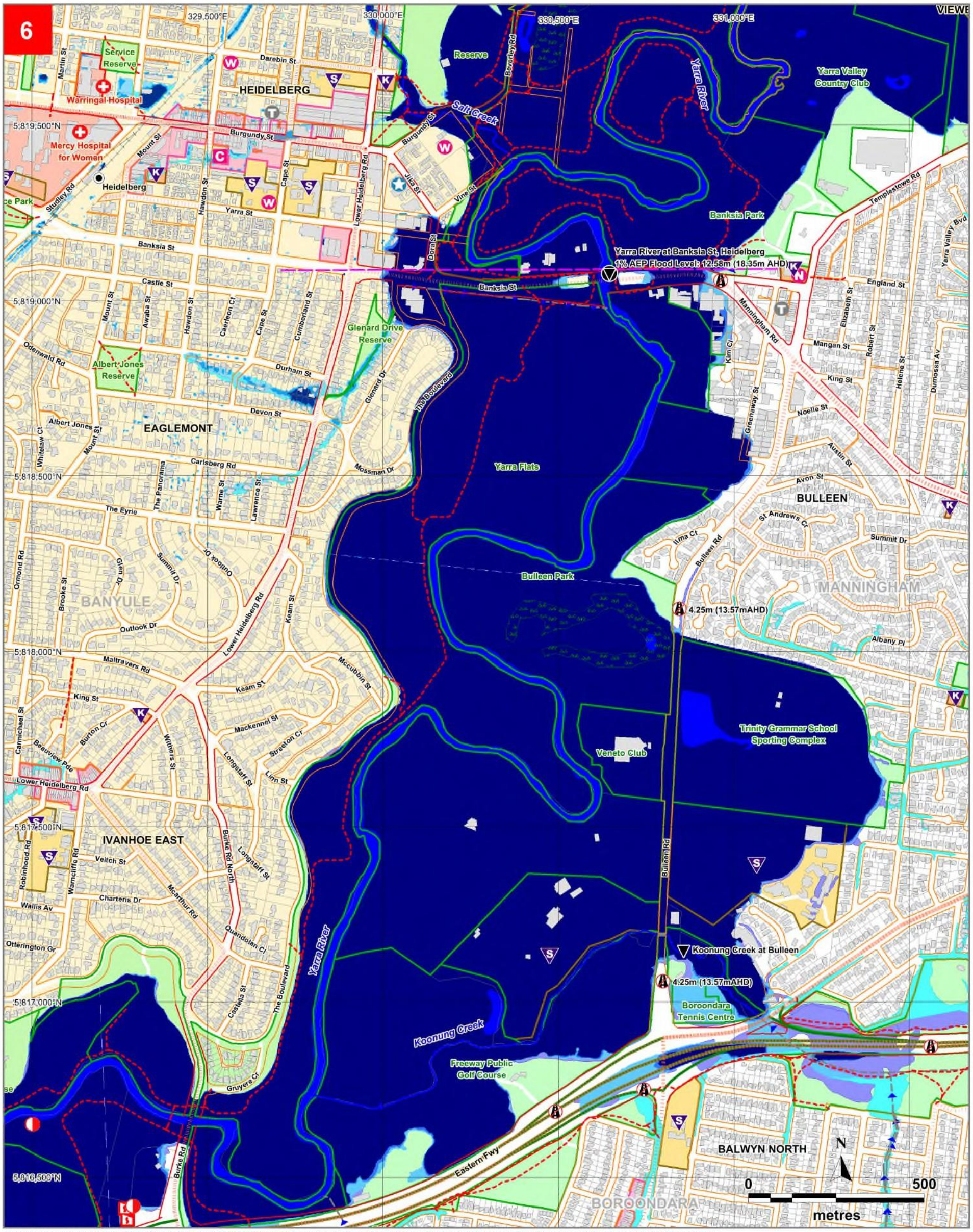
1% Annual Chance Flood Depth

- Greater than 60cm
- Between 30cm to 60cm
- Up to 30cm

- Natural Wetland
- Melbourne Water Retarding Basin
- Bicycle / Walking Trail
- Bus Routes (PTV)
- River / Creek
- Melbourne Water Stormwater Drain
- Embankment
- Sewer Emergency Relief Point

- C Community Centre
- W Place Of Worship
- N Nursing Home / Aged Care
- M Municipal Offices
- S School / College
- K Kindergarten / Child Care

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.



Salt Creek flood modelling completed by Engeny, June 2017. Yarra River flood modelling completed by S.P.Goh & Associates, June 2016. Banyule City Local Drainage Flood Modelling completed by Engeny, February 2015. Map Produced by VicSES May 2018.

CITY OF BANYULE

1% AEP (100yr ARI) Flooding

6. Yarra River (Ivanhoe East)

- Building
- Waterbody
- 1% AEP Riverine Flood Extent (Depth Unavailable)
- 1% AEP Flash Flood Extent (Depth Unavailable)
- Area Of Interest

1% Annual Chance Flood Depth

- Greater than 60cm
- Between 30cm to 60cm
- Up to 30cm

- Commercial Precinct
- Natural Wetland
- River / Creek
- Melbourne Water Stormwater Drain
- Bicycle / Walking Trail
- Bus Routes (PTV)
- School / College
- Kindergarten / Child Care
- Police Station
- Community Centre
- Place Of Worship
- Sewer Pumping Station
- Nursing Home / Aged Care
- Telephone Exchange
- Sewer Emergency Relief Point
- Road Closure Against Local Gauge
- Stream Level Gauge & 1%AEP Flood Level
- Hospital
- Rain Gauge

SES VICTORIA Melbourne Water

7

Plenty River at Greensborough
1% AEP Flood Level: 7.7m (47.75m AHD)

WHITTLESEA
BUNDOORA
DIAMOND CREEK
ST HELENA
BANYULE
GREENSBOROUGH
BRIAR HILL
NILLUMBIK
ELTHAM NORTH

Plenty River Flood Modelling completed by Melbourne Water. Eltham West Drain Flood Modelling completed by AECOM, July 2011. Banyule City Local Drainage Flood Modelling completed by Engeny, February 2015. Map Produced by VicSES May 2018.

CITY OF BANYULE

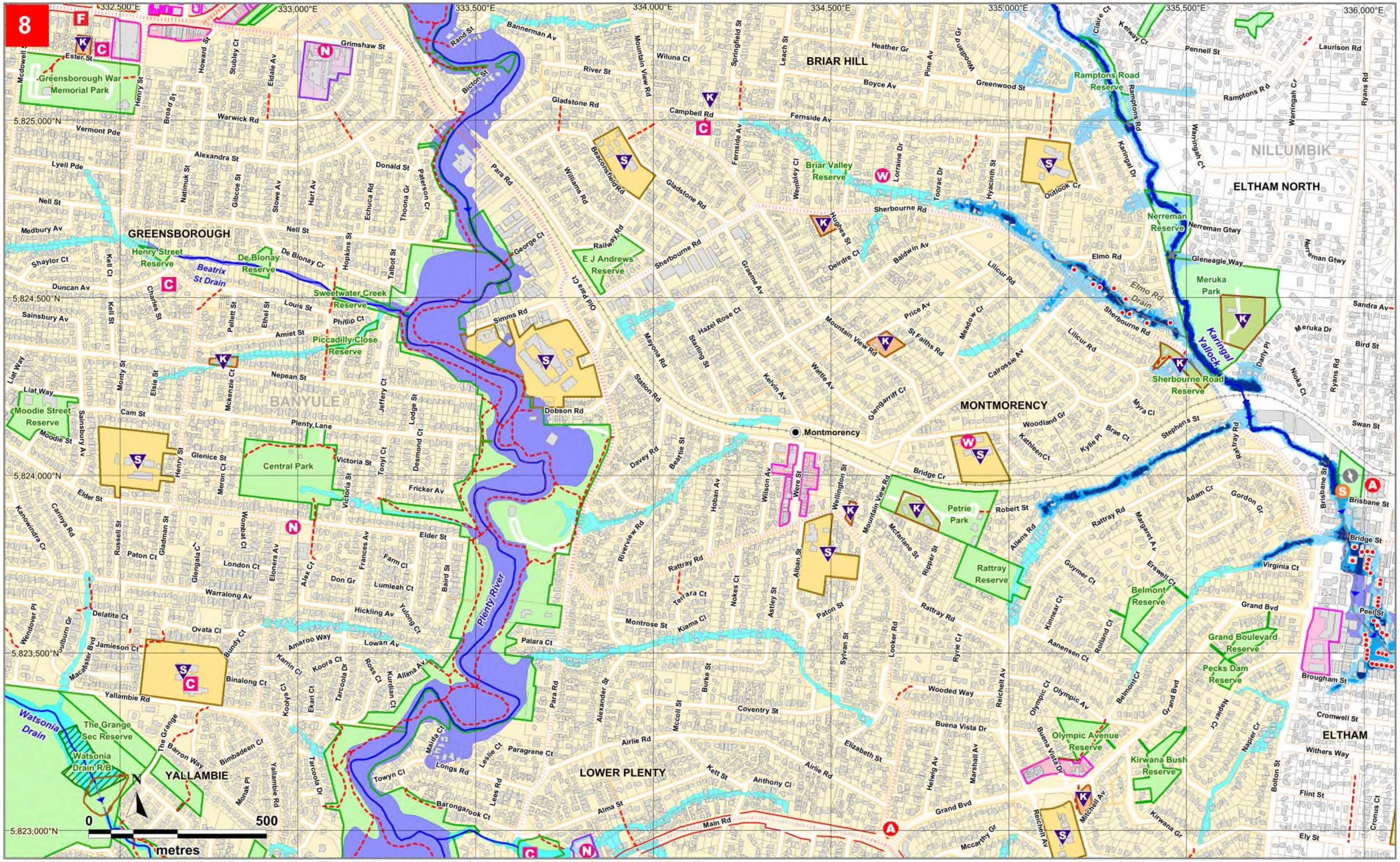
1% AEP (100yr ARI) Flooding

7. Plenty River (Greensborough)

Building
Area of Interest
Waterbody
1% AEP Flash Flood Extent (Depth Unavailable)
1% AEP Riverine Flood Extent (Depth Unavailable)
Shopping Precinct
Melbourne Water Retarding Basin
1% Annual Chance Flood Depth
Greater than 60cm
Between 30cm to 60cm
Up to 30cm
Creek / Channel
Melbourne Water Stormwater Drain
Bicycle / Walking Trail Embankment
Bus Route (PTV)
Telephone Exchange
Municipal Offices
Community Centre
Place Of Worship
Kindergarten / Childcare
School / College
1% AEP Over-Floor Flooding Risk
Nursing Home / Aged Care
Stream Level Gauge & 1% AEP Flood Level
Rain Gauge

BANYULE

0 500 metres



Plenty River Flood Modelling completed by Melbourne Water. Eltham West Drain Flood Modelling completed by AECOM, July 2011. Banyule City Local Drainage Flood Modelling completed by Engeny, February 2015. Map Produced by VicSES May 2018.

CITY OF BANYULE

1% AEP (100yr ARI) Flooding

8. Plenty River (Montmorency)

Building
Area of Interest
Waterbody
1% AEP Flash Flood Extent (Depth Unavailable)
1% AEP Riverine Flood Extent (Depth Unavailable)
Shopping Precinct
Melbourne Water Retarding Basin

1% Annual Chance Flood Depth

Greater than 60cm
Between 30cm to 60cm
Up to 30cm
Creek / Channel
Melbourne Water Stormwater Drain
Bicycle / Walking Trail
Embankment
Bus Route (PTV)
Ambulance Station
State Emergency Service
Community Centre
Place Of Worship
Kindergarten / Childcare
School / College
Power Terminal Station
1% AEP Over-Floor Flooding Risk
Nursing Home / Aged Care
Fire 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.

9

Plenty River at Lower Plenty
1% AEP Flood Level: 7.4m (26.5m AHD)

Viewbank AWS

0 500 metres

Plenty River flood modelling completed by Melbourne Water. Yarra River flood modelling completed by S.P.Goh & Associates, June 2016. Banyule City Local Drainage Flood Modelling completed by Engeny, February 2015. Map Produced by VicSES May 2018.

CITY OF BANYULE

1% AEP (100yr ARI) Flooding

9. Plenty River (Lower Plenty)

- Building
- Waterbody
- 1% AEP Flash Flood Extent (Depth Unavailable)
- 1% AEP Riverine Flood Extent (Depth Unavailable)
- Area Of Interest

1% Annual Chance Flood Depth

- Greater than 60cm
- Between 30cm to 60cm
- Up to 30cm

- Natural Wetland
- Melbourne Water Retarding Basin
- Commercial Precinct
- Bicycle / Walking Trail
- Bus Routes (PTV)
- River / Creek
- Melbourne Water Stormwater Drain
- Embankment
- Sewer Emergency Relief Point

- Community Centre
- Nursing Home / Aged Care
- School / College
- Kindergarten / Child Care
- Sewer Emergency Relief Point
- Stream Level Gague & 1% AEP Flood Level
- Rain Gauge

BANYULE

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.

10

334,500°E
335,000°E
335,500°E
336,000°E
336,500°E
5,823,000°N
5,822,500°N
5,822,000°N
5,821,500°N
5,821,000°N
5,820,500°N
5,820,000°N

Olympic Avenue Reserve
Kirwana Bush Reserve
Harrington Reserve
Wingrove Park
Barak Bushlands
Fitzsimmons Lane Linear Reserve
Eltham Lower Park
Hohnes Hill Reserve
Fitzsimons Lane Reserve
Edmund Rise Centre - Amberley Reserve
Westerfolds Park
Yarra Valley Parklands
Montpelier Reserve

MONTMORENCY
ELTHAM
NILLUMBIK
BANYULE
LOWER PLENTY
TEMPLESTOWE
MANNINGHAM

Withers Way
Napoleon St
Dalton St
Flint St
Ely St
Kirwana Gr
Grand Bvd
Anthony Cl
Airlie Rd
Elizabeth St
Looker Rd
Helwig Av
Marshall Av
Reichelt Av
Napier Cr
Cronus Ct
Bell St
Main Rd
Mccarthy Gr
Buena Vista Dr
Bolton St
Godalmin St
Brentwood Rise
Riverina Rd
Clearwater Cl
Kerby St
Thornton St
Valley Park Gr
Falkiner St
Porter St
Baxter St
Short Cut Rd
Fordhams Rd
Cheverton Rd
Devon Ct
Edwards St
Beleura Gr
Tyalla Cl
Lincoln Dr
Gwenda Ct
Philip St
Byron Av
Lynwood Cr
Old Eltham Rd
Cheval Ct
Gees Ct
Panorama Av
Rangeview Rd
Sackville St
Quinn Way
Cressy St
Eltham Park Drain
Walsh St
Souter St
Antoinette Blvd
Rodda Pde
Lavender Park Rd
Haldane Rd
Bonds Rd
Woodhill Rd
Old Eltham Rd
Beckett Ct
Geoffrey Ct
View Rd
Jayson Av
Hohnes Rd
Banoon Rd
Diamond Creek
Fitzsimons Lane
Homestead Rd
Rosehill Rd
Riverhill Dr
Amberley Way
Sidwell Ct
Yarra Hill Cl
Bolton St Drain
Yarra River at Fitzsimons Lane, Templestowe
1% AEP Flood Level: 10.28m (23.35m AHD)
Yarra River
Fitzsimons Lane Drain
Obriens Lane
Palamino Ct
Montpelier Dr
Lempriere Cl
Bosc Ct
Edwin Rd
Winifred Ct
Glendenning Rise
Read St
Angeltop Tce
Annette Pl
Dora Ct
Hermann Ct
Parkwood Pl
Porter St
Ellen Gr
Dellas Av
Kiloran Ct
Fairview Ct
Mclachlan St
Milne St
Heysham Way
Reark Ct
Hawtin St
Mahoney St
Unwin St

0
500
metres
N

Yarra River flood modelling completed by S.P.Goh & Associates, June 2016. Banyule City Local Drainage Flood Modelling completed by Engeny, February 2015. Map Produced by VicSES May 2018.

CITY OF BANYULE

1% AEP (100yr ARI) Flooding

10. Yarra River (Lower Plenty)

- Building
- Waterbody
- 1% AEP Flash Flood Extent (Depth Unavailable)
- 1% AEP Riverine Flood Extent (Depth Unavailable)
- Area Of Interest

1% Annual Chance Flood Depth

- Greater than 60cm
- Between 30cm to 60cm
- Up to 30cm

- Commercial Precinct
- Bicycle / Walking Trail
- Bus Routes (PTV)
- River / Creek
- Melbourne Water Stormwater Drain
- Retail Water Storage
- Telephone Exchange
- Ambulance Station
- Place Of Worship

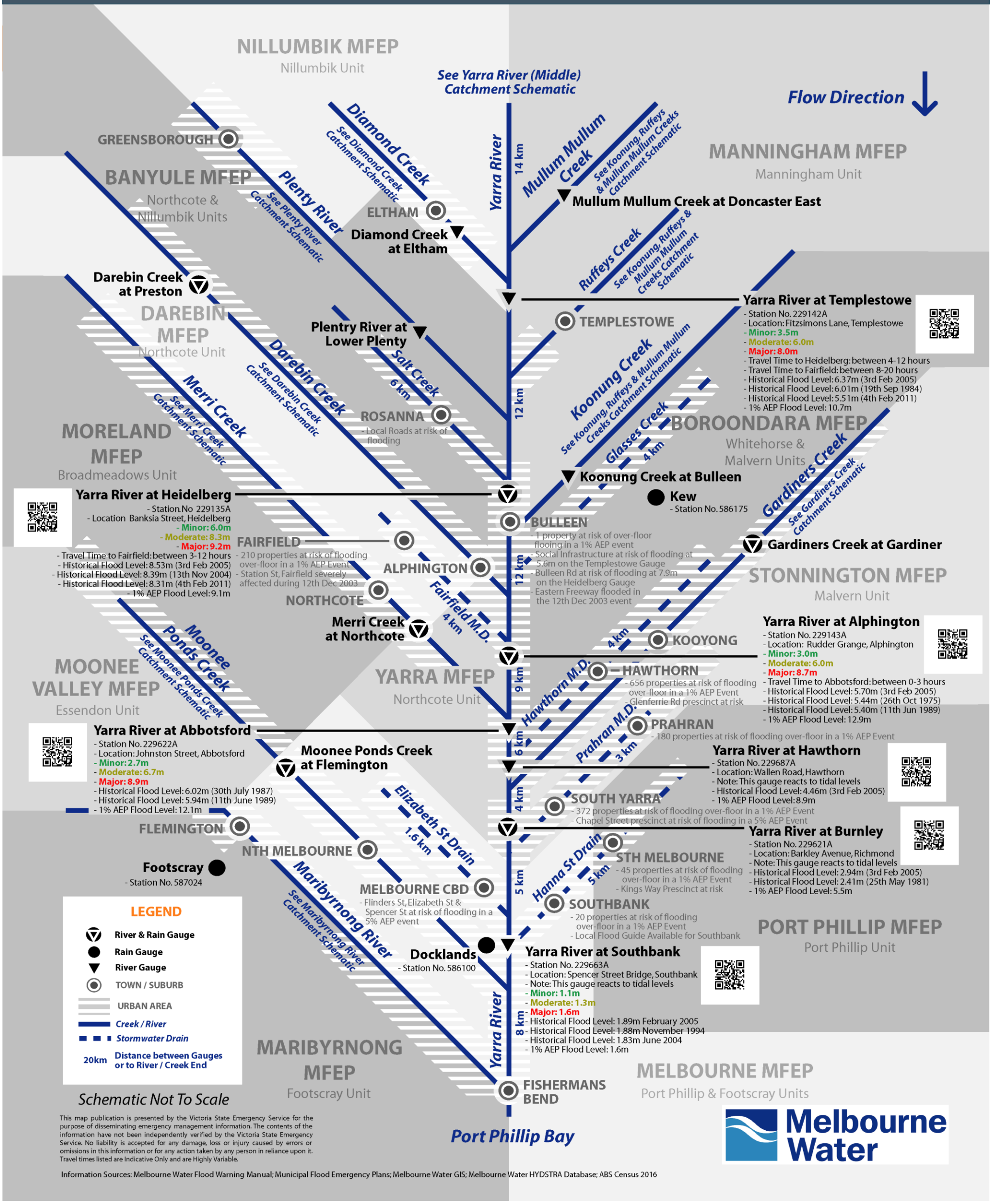
- Nursing Home / Aged Care
- School / College
- Kindergarten / Child Care
- Stream Level Gague & 1% AEP Flood Level

BANYULE

SES VICTORIA State Government Melbourne Water

Yarra River (Lower) Catchment Schematic

Version 5 - February 2020

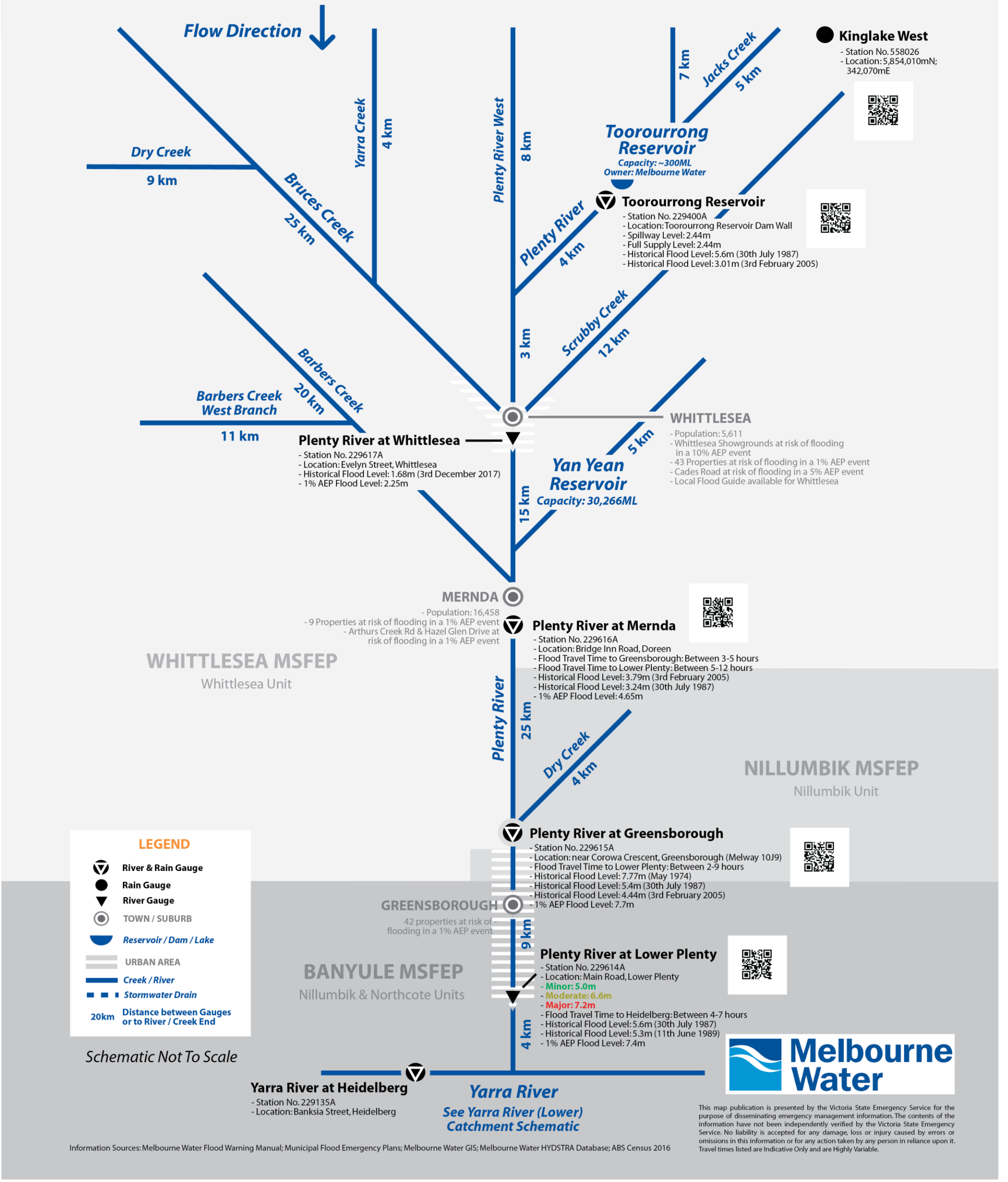


This map publication is presented by the Victoria State Emergency Service for the purpose of disseminating emergency management information. The contents of the information have not been independently verified by the Victoria State Emergency Service. No liability is accepted for any damage, loss or injury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

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

Plenty River Catchment Schematic

Version 3 - June 2020

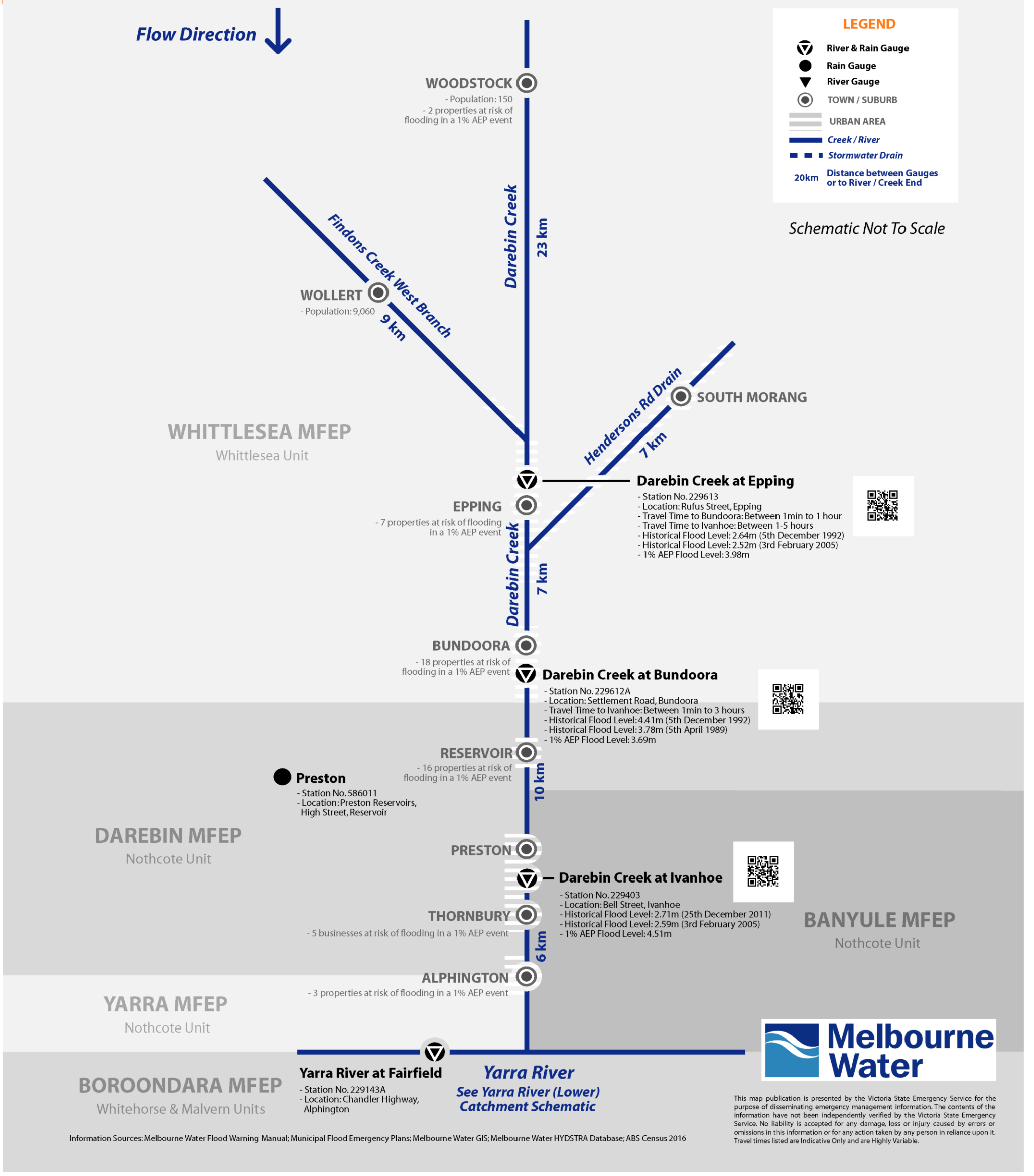


Information Sources: Melbourne Water Flood Warning Manual; Municipal Flood Emergency Plans; Melbourne Water GIS; Melbourne Water HYDSTRA Database; ABS Census 2016

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. Travel times listed are Indicative Only and are Highly Variable.

Darebin Creek Catchment Schematic

Version 4 - February 2020



APPENDIX G – SANDBAG ARRANGEMENTS

General

Appropriately placed sandbags can help reduce the impact of flooding to residences, businesses and infrastructure. While sandbags will not completely stop all floodwater, they may reduce the amount of water entering properties.

The IC will determine the priorities related to the use of sandbags, which will be consistent with the strategic priorities and the VICSES Sandbag policy.

If VICSES sandbags are becoming limited in supply, then priority will be given to protection of Essential Infrastructure. If time permits, requests for supplementary supply should be carried out in line with the City of Banyule

MEMP

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

Banyule Council MEMO will liaise with the VICSES North West Metro RDO/ IC (as appropriate) to ensure effective coordination of listed resources.

Sandbags will be filled in accordance with the VICSES Sandbag Quick Reference Guide and the VICSES Statewide Guideline- Sandbags. A short video depicting the filling and use of sandbags is available at

https://www.youtube.com/watch?v=-_T--I3b-34&list=PL428FCA686837ADED

(Sandbagging demonstration- VICSESTV on YouTube).

Sand may be obtained from the suppliers/locations noted below and as stated in the VICSES MOU: Sand Supply.

Operational

Sandbag Storage Locations

Sandbags may be obtained from any of the locations as noted below.

Organisation	Location	Number of Sandbags	Estimated Response Time	Contact
City of Banyule Council Depot	Depot address	0		
Nillumbik VICSES Unit	Unit LHQ	2000	1Hr	9431 2540
Northcote VICSES Unit	Unit LHQ	8000	2Hr	9497 2211
VICSES North West Metro Region		As Required	4Hr	Via CTDO
Other				

Table G1- Sandbag storage locations within the City of Banyule and adjoining locations

Sand Suppliers

In large events, or when local supplies have been exhausted, supply will be in accordance with *VICSES- Supplier MOU: Sand Supply*. VICSES F.O.G document suggests washed river sand as the preferred material, with soil and clay also potential options for use.

A heavy bodied or sandy soil is most desirable for filling sandbags, but any usable material at or near the site has definite advantages. Gravelly or rocky soils are generally poor choices because of their permeability. Filled bags of earth material will deteriorate quickly. Sand/ fill material should be free of salt and contaminants where possible.

Organisation	Location	Delivery Capability	Restrictions	Contact
Banyule City Council Depot	Depot address	Up to 5m3 only		
Chris Cross Garden Supply	1575 Burke Rd Kew East	50m3	Closed Sundays & Public Holiday	9859 2666
Evetts Building Supply	357 Heidelberg Road Northcote	20m3		9482 5858
Mercuri Garden & Building Supplies	2 The Concord, Bundoora	50m3	Not open Sunday	9467 3546

Table G2- Sand Suppliers and locations within the City of Banyule and adjoining locations

Sandbag Collection Points

Sandbag collection points may be established at the IC's discretion and as conditions permit. Potential locations are noted below. Note that locations documented below are potential sites only and will not be appropriate for use in all events.

Location	Address	Sector	Operational Restrictions	blank
Banyule City Council Depot				

Table G3- Banyule City Council potential Sandbag Collection Points

Residents may purchase sandbags or similar from hardware or garden supply stores for protection of residential property or businesses if a sandbag collection point is not available to the public. Some locations may include:

- Bunnings, etc
- Specific local companies known to carry supply

Machinery Supply

Appliances documented below will be required when undertaking sandbagging operations

Organisation	Asset	Location	Estimated deployment time	Contact
Banyule City Council	Front End Loader Specification requirements: – Min lift height 2.5m Min Forward reach 60cm Max bucket width 2.5m	Council Depot	3Hr	MEMO
	Small tipper (3 tonnes)		3Hr	MEMO
	Vehicle/ trailer for sandbag transport		3Hr	MEMO
VICSES North West Metro Region	Sandbag Fill Machine	Pakenham	3Hr	CTDO

Table G4- Machinery/ Vehicles required for Sand Supply in Banyule

Additional resources from Council that could be utilised to aid response include:

- Backhoe
- Rough Terrain Forklift
- Dozer D8

POST OPERATIONAL

Clean up and Disposal

Residents, businesses and Essential Infrastructure owners will be encouraged to contact Council to determine the safest method for disposal of sandbags. Following a flood event within the Municipality, Banyule Council will facilitate the disposal of sandbags. VICSES will work in conjunction with Banyule City Council to ensure the disposal of used sandbags is dealt with under the Community Recovery arrangements as outlined in the EMMV.

APPENDIX H – SEVERE WEATHER (STORM) EVENTS

Overview

Banyule municipality is susceptible to severe weather events because of a combination of its undulating terrain, urban boundary location and wind exposed properties. The City of Banyule may be subject to severe weather events such as wind storms, hailstorms, and thunderstorms (including lightning activity).

Severe storm activity could result in injuries and obstructions across roads which can disrupt services, affect community functioning and have great potential for road traffic delays and an increase in road accidents.

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

Large Storm Events

Typically, the Northcote and Nillumbik Units would expect to be impacted by a large storm event once per year (more than 50 RFA's per day).

Since 2009 the following larger storm events have occurred in the Banyule area:

- 25th December 2011 – Heavy rain and severe hail storm event that saw **543 RFA's** received mainly for flash flooding and hail damage.
- September 2012 – Windstorm event which saw **193 RFA's** received
- December 2016 – Flood and storm event which saw **185 RFA's** received, coinciding with major floods impacting Victoria across the state (biggest flood event since 2011).

VICSES Requests for Assistance (RFAs)

The Victoria State Emergency Service records requests for assistance made by the public during severe weather events. Table H1 below is a breakdown of requests by suburb and damage type during the period July 2009 and January 2020.

VICSES Request for Assistance (July 2009 – January 2020)					
Suburb	Building Damage	Flooding	Tree Down	Tree Down Traffic Hazard	Other *
Bellfield	26	1	21	6	0
Briar Hill	55	29	98	27	1
Bundoora	104	38	72	46	0
Eaglemont	53	11	95	30	4
Eltham	3	1	9	11	0
Eltham North	26	9	59	17	1
Greensborough	272	90	372	145	3
Heidelberg	46	14	79	45	1
Heidelberg Heights	57	15	60	31	0
Heidelberg West	65	19	81	43	1
Ivanhoe	86	22	109	53	0
Ivanhoe East	46	14	72	31	0
Lower Plenty	61	15	98	74	1
Macleod	82	30	95	38	1
Montmorency	157	54	350	102	3

Rosanna	79	32	101	47	4
St Helena	19	8	31	11	2
Viewbank	54	34	75	43	3
Watsonia	73	21	56	30	1
Watsonia North	36	10	58	28	1
Yallambie	28	6	40	22	0

Table H1 – Breakdown of severe weather RFAs received by VICSES Northcote & Nillumbik Units by suburb

*Fence Down, Loose Debris / Objects, Rescue Persons Trapped, Rescue Structure Collapse, and Rescue Vehicle into Structure

Table H2 is a breakdown of requests for assistance by Date (Month) and damage type.

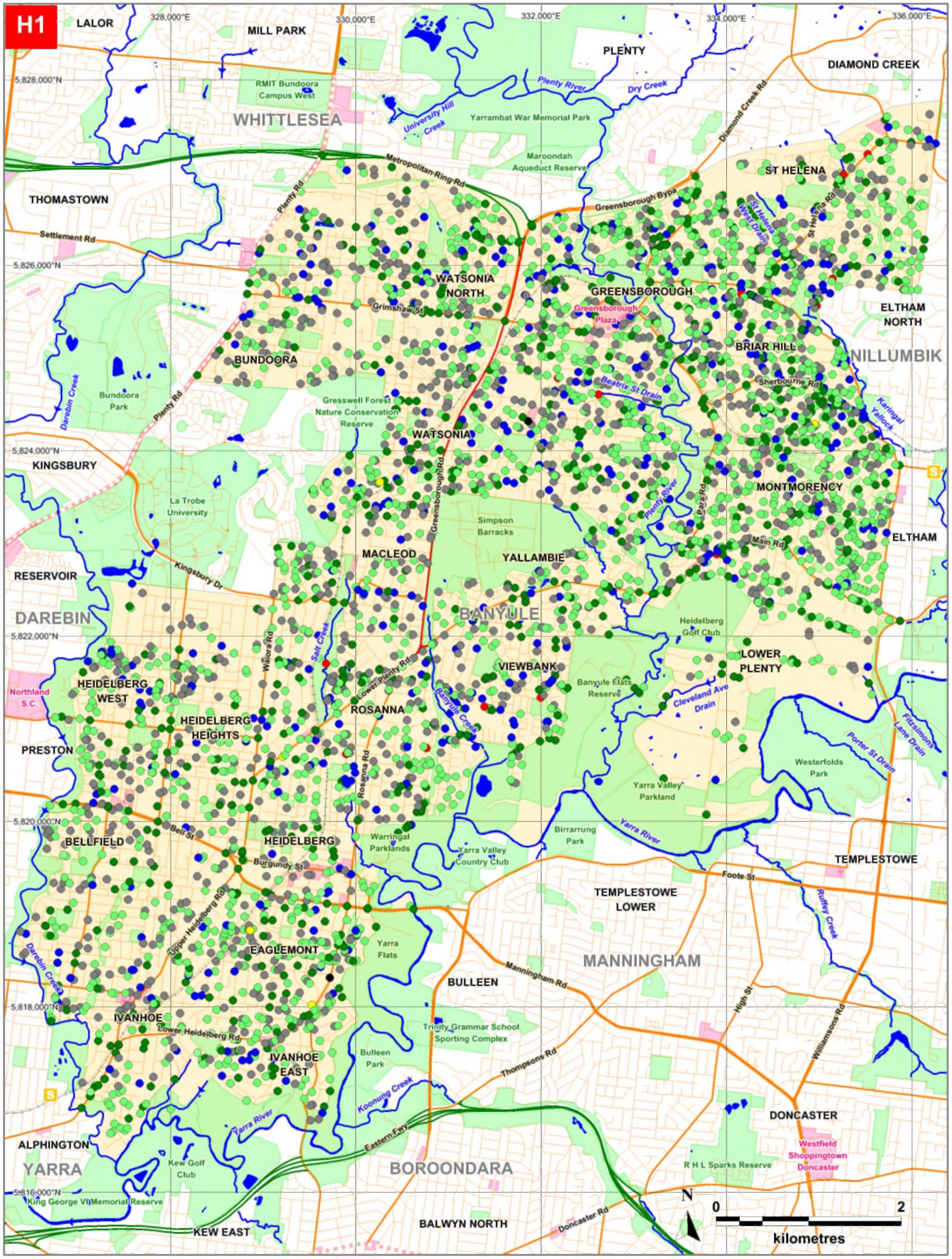
	VICSES Request for Assistance (July 2009 – January 2020)				
Date	Building Damage	Flooding	Tree Down	Tree Down Traffic Hazard	Other*
July 2009	3	4	2	0	0
August 2009	21	68	28	0	0
September 2009	9	11	5	1	0
October 2009	0	2	1	0	0
November 2009	18	9	4	10	0
December 2009	2	14	4	1	0
January 2010	4	11	3	1	0
February 2010	5	5	0	0	0
March 2010	8	11	10	17	0
April 2010	1	7	1	0	0
May 2010	1	1	1	0	0
June 2010	8	35	15	0	0
July 2010	4	12	9	0	0
August 2010	8	17	8	0	0
September 2010	9	19	4	1	0
October 2010	18	15	4	3	0
November 2010	10	17	8	2	0
December 2010	15	26	16	8	1
January 2011	11	24	14	12	0
February 2011	11	30	10	18	1
March 2011	2	8	0	0	0
April 2011	8	11	7	3	0
May 2011	2	1	4	0	0
June 2011	6	12	4	0	0
July 2011	4	3	1	0	0
August 2011	0	3	1	0	0
September 2011	6	16	7	1	0
October 2011	1	9	4	1	0
November 2011	17	16	6	9	0
December 2011	294	32	16	194	7
January 2012	29	37	17	1	0
February 2012	16	43	17	0	0
March 2012	3	8	4	0	0
April 2012	5	18	4	1	0
May 2012	5	5	1	1	0
June 2012	6	6	3	0	0
July 2012	3	6	2	1	0
August 2012	3	4	1	0	0
September 2012	61	109	23	0	0
October 2012	2	1	1	1	0
November 2012	2	5	0	0	0
December 2012	8	18	7	0	0
January 2013	6	4	6	0	0
February 2013	13	8	6	1	0
March 2013	6	18	7	0	0
April 3013	1	5	2	1	0
May 2013	7	1	1	3	0

Date	VICSES Request for Assistance (July 2009 – January 2020)				
	Building Damage	Flooding	Tree Down	Tree Down Traffic Hazard	Other*
June 2013	20	3	2	16	0
July 2013	10	25	6	0	0
August 2013	48	62	39	0	0
September 2013	24	56	24	0	0
October 2013	14	45	6	1	0
November 2013	2	7	2	0	0
December 2013	3	8	5	0	0
January 2014	11	25	13	0	0
February 2014	4	19	7	0	0
March 2014	2	5	5	1	0
April 2014	3	8	1	1	0
May 2014	0	7	7	1	0
June 2014	44	84	23	0	0
July 2014	6	15	4	0	0
August 2014	3	3	1	1	0
September 2014	22	33	5	2	0
October 2014	5	10	2	1	0
November 2014	4	4	3	0	0
December 2014	5	25	5	0	0
January 2015	4	11	4	1	0
February 2015	6	4	5	0	0
March 2015	2	13	3	0	0
April 2015	3	3	1	0	0
May 2015	1	2	5	0	0
June 2015	2	2	1	0	0
July 2015	4	10	3	0	0
August 2015	1	0	1	0	0
September 2015	1	1	1	0	0
October 2015	3	8	6	0	0
November 2015	15	28	20	0	0
December 2015	11	20	8	0	0
January 2016	7	15	12	2	0
February 2016	5	6	4	0	0
March 2016	4	5	7	0	0
April 2016	6	1	4	0	0
May 2016	14	44	4	0	0
June 2016	6	7	2	1	0
July 2016	14	18	5	0	0
August 2016	1	4	2	0	0
September 2016	4	2	3	2	0
October 2016	20	52	15	0	0
November 2016	3	17	8	0	0
December 2016	72	19	7	80	7
January 2017	6	12	4	2	0
February 2017	8	8	9	2	0
March 2017	2	13	9	1	0
April 2017	14	7	6	1	0
May 2017	1	1	0	0	0
June 2017	2	1	1	0	0
July 2017	5	15	12	1	0
August 2017	1	2	1	0	0
September 2017	6	10	5	1	0
October 2017	4	4	1	2	0
November 2017	2	3	6	2	0
December 2017	38	22	10	30	1
January 2018	8	11	13	0	0
February 2018	8	22	12	0	0
March 2018	8	21	7	1	0
April 2018	9	32	9	2	0
May 2018	7	17	6	1	0
June 2018	6	5	6	3	0
July 2018	12	15	9	0	0

Date	VICSES Request for Assistance (July 2009 – January 2020)				
	Building Damage	Flooding	Tree Down	Tree Down Traffic Hazard	Other*
August 2018	2	9	5	0	0
September 2018	1	3	2	0	0
October 2018	0	6	2	0	0
November 2018	44	36	29	6	3
December 2018	18	17	5	6	1
January 2019	4	18	13	1	0
February 2019	1	5	7	1	0
March 2019	2	9	5	0	0
April 2019	1	2	4	0	0
May 2019	2	6	1	1	0
June 2019	7	2	6	1	0
July 2019	10	11	10	1	0
August 2019	5	7	6	0	0
September 2019	4	8	2	2	0
October 2019	7	10	7	0	0
November 2019	32	93	32	3	1
December 2019	5	22	11	2	1
January 2020	11	44	13	2	0

Table H2 – Breakdown of severe weather RFAs received by VICSES Northcote & Nillumbik Units by month

*Fence Down, Loose Debris / Objects, Rescue Persons Trapped, Rescue Structure Collapse, and Rescue Vehicle into Structure


H1
LALOR
MILL PARK
PLENTY
DIAMOND CREEK
328,000°E
330,000°E
332,000°E
334,000°E
336,000°E
5,828,000°N
RMIT Bundoora Campus West
WHITTLESEA
Plenty River
Dry Creek
University Hill Creek
Yarrambat War Memorial Park
Diamond Creek Rd
Maroondah Aqueduct Reserve
Metropolitan Ring Rd
ST HELENA
THOMASTOWN
Plenty Rd
Greensborough Bypa
St Helena West Drain
St Helena Rd
Settlement Rd
5,826,000°N
WATSONIA NORTH
GREENSBOROUGH
Grimshaw St
Greensborough Plaza
ELTHAM NORTH
BRIAR HILL
NILLUMBIK
BUNDOORA
Darebin Creek
Bundoora Park
Plenty Rd
Gresswell Forest Nature Conservation Reserve
Beatrix St Drain
Sherbourne Rd
Karingal Yallock
WATSONIA
5,824,000°N
KINGSBURY
La Trobe University
Greensborough Rd
Simpson Barracks
MONTMORENCY
Plenty River
Para Rd
Main Rd
ELTHAM
MACLEOD
YALLAMBIE
RESERVOIR
Kingsbury Dr
DAREBIN
BANYULE
Heidelberg Golf Club
5,822,000°N
Waiora Rd
Salt Creek
LOWER PLENTY
VIEWBANK
Lower Plenty Rd
Banyule Flats Reserve
Cleveland Ave Drain
Fitzsimons Lane Drain
Northland S.C.
HEIDELBERG WEST
ROSANNA
Banyule Creek
HEIDELBERG HEIGHTS
Rosanna Rd
PRESTON
Porter St Drain
Westerfolds Park
Yarra Valley Parkland
5,820,000°N
Bell St
BELLFIELD
HEIDELBERG
Warringal Parklands
Yarra Valley Country Club
Birrarrung Park
Yarra River
TEMPLESTOWE
Burgundy St
Foote St
TEMPLESTOWE LOWER
Upper Heidelberg Rd
Ruffey Creek
Yarra Flats
EAGLEMONT
MANNINGHAM
Manningham Rd
BULLEEN
Darebin Creek
5,818,000°N
IVANHOE
Lower Heidelberg Rd
Trinity Grammar School Sporting Complex
High St
Williamsons Rd
IVANHOE EAST
Bulleen Park
Thompsons Rd
Koonung Creek
Yarra River
Eastern Fwy
DONCASTER
ALPHINGTON
Kew Golf Club
Westfield Shoppingtown Doncaster
YARRA
BOROONDARA
R H L Sparks Reserve
5,816,000°N
King George VII Memorial Reserve
KEW EAST
BALWYN NORTH
Doncaster Rd
N
0
2
kilometres
CITY OF BANYULE
Version 1: June 2020
H1 - Severe Weather Request for Assistance (RFA) Received by Type (Jul 2009 - June 2020)
Commercial Precinct
Reserve / Area of Interest
Waterbody / Reservoir
River / Creek
Melbourne Water Stormwater Drain
Tramway
Severe Weather RFAs (Storm or Flood)
Building Damage (1428)
Dam Incident (2)
Flooding (473)
Loose Debris / Objects / Fence (7)
Rescue (18)
Tree Down (2032)
Tree Down Traffic Hazard (882)
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.

H2

LALOR
MILL PARK
PLENTY
DIAMOND CREEK
WHITTLESEA
THOMASTOWN
ST HELENA
WATSONIA NORTH
GREENSBOROUGH
ELTHAM NORTH
BUNDOORA
BRIAR HILL
NILLUMBIK
WATSONIA
KINGSBURY
MONTMORENCY
ELTHAM
MACLEOD
YALLAMBIE
RESERVOIR
DAREBIN
BANYULE
VIEWBANK
LOWER PLENTY
HEIDELBERG WEST
ROSANNA
HEIDELBERG HEIGHTS
PRESTON
BELLFIELD
HEIDELBERG
EAGLEMONT
TEMPLESTOWE
TEMPLESTOWE LOWER
MANNINGHAM
BULLEEN
IVANHOE
IVANHOE EAST
DONCASTER
ALPHINGTON
YARRA
BOROONDARA
KEW EAST
BALWYN NORTH

RMIT Bundoora Campus West
Yarrambat War Memorial Park
Maroondah Aqueduct Reserve
Bundoora Park
Gresswell Forest Nature Conservation Reserve
La Trobe University
Simpson Barracks
Heidelberg Golf Club
Banyule Flats Reserve
Westerfolds Park
Yarra Valley Parkland
Warringal Parklands
Yarra Valley Country Club
Birrarrung Park
Yarra Flats
Trinity Grammar School Sporting Complex
Bulleen Park
Kew Golf Club
King George VII Memorial Reserve
Northland S.C.
Greensborough Plaza
Westfield Shoppingtown Doncaster
R H L Sparks Reserve

Plenty River
Dry Creek
University Hill Creek
Darebin Creek
Salt Creek
Banyule Creek
Koonung Creek
Yarra River
St Helena West Drain
Cleveland Ave Drain
Porter St Drain
Fitzsimons Lane Drain
Beatrix St Drain
Karingal Yallock Creek
Ruffey Creek

Metropolitan Ring Rd
Greensborough Bypa
Diamond Creek Rd
St Helena Rd
Plenty Rd
Settlement Rd
Grimshaw St
Sherbourne Rd
Greensborough Rd
Para Rd
Main Rd
Kingsbury Dr
Waiora Rd
Lower Plenty Rd
Rosanna Rd
Bell St
Burgundy St
Upper Heidelberg Rd
Lower Heidelberg Rd
Manningham Rd
High St
Williamsons Rd
Thompsons Rd
Eastern Fwy
Doncaster Rd
Foote St

328,000°E
330,000°E
332,000°E
334,000°E
336,000°E
5,828,000°N
5,826,000°N
5,824,000°N
5,822,000°N
5,820,000°N
5,818,000°N
5,816,000°N

N
0
2
kilometres

CITY OF BANYULE

Version 1: June 2020

H2 - Severe Weather Request for Assistance (RFA) Received by Date (Jul 2009 - Jan 2020)

Commercial Precinct
Reserve / Area of Interest
Waterbody / Reservoir
River / Creek
Melbourne Water Stormwater Drain
Tramway

Severe Weather RFAs (Storm or Flood)
(By Month > 120 Requests Received)

December 2011	(543)
September 2012	(193)
August 2013	(149)
June 2014	(151)
December 2016	(185)
November 2019	(161)

SES
VICTORIA State Government
Melbourne Water