



Ref: DG/21/4985

27 May 2022

Coroner Darren Bracken
Coroners Court of Victoria
65 Kavanagh Street
SOUTHBANK VIC 3006

Dear Coroner Bracken,

Victoria State Emergency Service – Response to Recommendations made following the inquest into the death of Max Edward Loweke COR 2016/59

I refer to the above inquest and your findings and recommendations following the inquest held regarding the circumstances of the death of Mr Loweke. The below response from the Victoria State Emergency Service (**VICSES**) was compiled following consultation with Victoria Police regarding your recommendations that were directed jointly to VICSES and Victoria Police.

It is the view of VICSES that the action taken by Mitchell Shire Council following Mr Loweke's death (including those mentioned in your finding at paragraph 90) have significantly contributed to reducing the likelihood of a similar incident occurring and they complement that enhanced control arrangements outlined in this response enabling them to be more effective in the event of similar incidents arising in the future.

1. Recommendation A

Victoria Police and Victoria State Emergencies Services consider augmenting emergency management training to provide that when an emergency ("The Emergency") is being managed by the provisions of the Emergency Management Act ("the Act") and The Emergency Management Manual ("the Manual") that all organisations and personnel involved be explicitly informed that The Emergency is being managed pursuant to the Act and The Manual and of:

- (i) which organisation is the Control Agency.*
- (ii) the names of those appointed to or adopting defined roles for the purposes of managing the Emergency such as the Incident Controller (or in the case of Victoria Police the Police Commander and Police Forward Commander), Incident Emergency Response Team, Incident Emergency Response Coordinator, Municipal Emergency Response Coordinator, the Municipal Emergency Response Officer etc.*
- (iii) at meetings conducted within and across organisations involving those referred to in ii above the meetings be explicitly declared as Emergency Management Team Meetings, minuted and that such minutes list the names of people appointed to or adopting the defined roles referred to in ii above.*

Victoria State Emergency Service

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Response

- 1.1 As an alternative to Recommendation A, VICSES has implemented the following changes and notes legislative change relevant to VICSES and this recommendation.

Changes to the emergency management regime since January 2016

- 1.2 In 2018, the *Emergency Management Act 2013* (the **Act**) was amended to require the Emergency Management Commissioner to arrange for the preparation of a State Emergency Management Plan.
- 1.3 The Emergency Management Manual Victoria (**EMMV**) ceased to have effect on 1 December 2020 and was replaced by the Victorian State Emergency Management Plan (**SEMP**).¹
- 1.4 The SEMP is an integrated, coordinated and comprehensive plan, which has incorporated a range of initiatives to make the Emergency Management (**EM**) structure clearer. Key initiatives under the SEMP include (but are not limited to):
- 1.4.1 the Control Agency is determined by the major effect of the emergency, and can change according to any change in major effect;²
 - 1.4.2 the early formation of an Emergency Management Team (**EMT**) which is designed to clarify the roles of agencies and associated personnel; and
 - 1.4.3 if more than one agency could potentially be the Control Agency, the agencies' officers in charge will, by agreement, nominate the Control Agency as the single line of control.³
- 1.5 The SEMP has also been subject to ongoing review and amendment in response to recommendations arising from the Inquiry into the 2019-2020 Victorian Fire Season and a further review initiated in 2021 by Emergency Management Victoria (**EMV**).
- 1.6 VICSES continually reviews findings and recommendations from public enquiries into significant emergency events in Victoria (and more broadly throughout Australia) to identify and consider opportunities for improvement of its EM policies and training.
- 1.7 Almost all incidents that VICSES attend are classified as 'emergencies' under the Act.
- 1.8 Whilst VICSES continually reviews its operations, policies and procedures (and other relevant information including as mentioned above) with the intention of continually improvement to ensure effective control is established, communicated and maintained during a response to an emergency, VICSES does not think it is practical or effective for it to mandate that steps be taken during an emergency response to ensure that all organisations and personnel are informed at all times of the matters included in Recommendations A(i) and A(ii).

¹ The SEMP can be found online at: <https://www.emv.vic.gov.au/responsibilities/sempr>.

² SEMP, page 50.

³ SEMP, page 49.

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- 1.9 It is the view of VICSES that implementing these recommendations would limit the necessary degree of flexibility required to enable constant reassessment and amend responses at a local level during responses to emergencies according to the actual circumstances of the event at the relevant time.
- 1.10 The alternative measures implemented, or to be implemented, by VICSES set out below are intended to nevertheless address the intent of Recommendation A – to establish and maintain effective control and timely communication in emergency situations.

Recommendation A(i)

- 1.11 Since 2016, there have been ongoing updates to the VICSES Operations Management Manual (**VICSES OMM**), the Field Operations Guide (**FOG**) and supporting standard operating procedures to capture the relevant amendments to the Act, and the introduction and revisions to the SEMP. These updates emphasise the mechanisms and escalation arrangements in place to enable and enhance effective control, command and coordination processes when responding to emergencies.
- 1.12 Regular VICSES Duty Officer training programs at Unit, Regional and State levels are the primary avenues for the uplift of VICSES members' awareness and understanding. A new Volunteer Unit Duty Officer course that encapsulates the relevant content of the VICSES OMM and FOG is due for piloting in May 2022, ahead of an agency wide roll-out commencing on 1 July 2022.

Recommendation A(ii)

- 1.13 Enhancements to VICSES Readiness and Activation Triggers for Storm and Flood and the complementary agency Policy on Operations Management along with the revised VICSES OMM version 4 released in July 2018, have strengthened the appointment of VICSES roles for incidents, and the communication of this information to relevant partner agencies. A VICSES Regional Operations Command Centre (**ROCC**) may now be activated for an anticipated or an escalating actual storm and flood event, as an escalation step for enhancing Command capabilities before an Incident Control Centre (**ICC**) may be established in large scale events.
- 1.14 For the North East Region, a VICSES ROCC has been activated for seven storm and/or flood events in the September 2021 to February 2022 period. On each occasion, Victoria Police provided an ERC or Emergency Management Liaison Officer (**EMLO**) as part of the ROCC. EMT briefings occur on activation of the ROCC, these include the control arrangements, communication plan and key safety messaging.

Recommendation A(iii)

- 1.15 As noted for Recommendation A(ii), EMT meetings are conducted on the activation of a VICSES Incident Control Point (**ICP**) and/or the establishment of a ROCC and when it escalates to the establishment of an ICC as may be operationally required during an emergency.

2. Recommendation B

Those employees of emergency services who may adopt the role of Incident Controllers, and in the case of Victoria Police those who may fulfil the role of Police Commander and Police Forward Commander undergo formal risk assessment training.

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Response

- 2.1 VICSES has already implemented this recommendation.
- 2.2 VICSES have continued to invest time and resources to enhance the development and application of risk assessment processes during emergency responses.
- 2.3 The changes to the VICSES operations policy and doctrine noted above in response to Recommendation A emphasises the central tenant of risk assessment in emergency response settings. "Safety drives our decisions" is a key VICSES organisational value. The application of robust and rigorous dynamic risk assessment processes by VICSES underpins the application of this important organisational value during an operational response. This approach is set out in the VICSES Standard Operating Procedures (**SOPs**) and FOG.
- 2.4 The VICSES FOG sets out the dynamic risk assessment (**DRA**) framework employed by VICSES members when responding to an emergency event. The DRA is a simple continuous risk assessment process that allows operational personnel to rapidly and effectively assess risk to inform decisions about appropriate actions and controls, whilst ensuring responder safety in these rapidly changing operational environments. When assessing risk, responder safety is paramount.
- 2.5 The DRA applies to all hazards associated with VICSES emergency response and operational activities. The DRA process is applied by all VICSES personnel and reassessed regularly throughout the attendance at an emergency, including whenever there is an unexpected change to the plan or work environment.
- 2.6 The EM Sector Joint Standard Operating Procedure (**JSOP**) at 08.02 – Dynamic Risk Assessment outlines the requirement for continuous DRA by VICSES personnel as a component of all operational activities, including emergency response and training, to ensure responder safety is maintained.

3. Recommendation C

Victoria Police and Victoria SES and other relevant parties engage in regular practical exercises – mock emergencies, conducted in a realistic fashion and including in regional areas rehearsing the implementation and use of the EMMV management structure in the circumstances of various forms of emergencies

Response

- 3.1 This recommendation has been implemented by VICSES and Victoria Police.
- 3.2 VICSES in consultation with Victoria Police jointly support this recommendation and note that prior to the COVID-19 pandemic, multi-agency exercises were occurring across the State monthly or bi-monthly. Since the COVID-19 pandemic, there have been limited opportunities to participate in face to face exercises. However, VICSES and Victoria Police have adapted to the situation and continued to collaborate and conduct exercises, in person where possible or virtually.

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- 3.3 The value of engaging in practical exercises is recognised by both agencies. The lessons which are identified through training exercises are used to inform future VICSES EM training packages. Joint exercises have continued throughout 2020/21 and, as recently as May 2022, VICSES participated in an exercise concerning a large scale emergency event (with Victoria Police and others).
- 3.4 VICSES is also scheduled to participate in a 'storm' exercise in about August/September 2022 in the Hume Region to focus on emergency response during the escalation of a storm event.
- 3.5 Other recent EM training exercises attended by VICSES together with other emergency response agencies (including Victoria Police) and local entities (e.g. local councils) include:
- 3.5.1 Exercise 'That Will Never Happen' – conducted in October 2020, involving the evaluation of the operation of an Emergency Relief Centre in a COVID-19 environment in the Hume Region. A copy of the Exercise report is contained within Victoria Police's submission.
 - 3.5.2 Exercise Stones – conducted in November 2020, involving the formation of a Level 3 ICC in the context of a flood and storm exercise. A copy of the Exercise Stones report is contained within Victoria Police's submission.
 - 3.5.3 Exercise GOR – conducted in December 2021, involving the formation of a Level 3 ICC at Geelong in the context of severe fire danger ratings.
 - 3.5.4 Disaster exercise, evacuation of Halls Gap – this exercise was based on the real time evacuation of Halls Gap and how the issues which were identified in the After Action Review would be addressed in today's environment.
 - 3.5.5 VICSES led three exercises in late 2021 with a focus on control arrangements at the incident and divisional levels.
 - 3.5.6 Exercise Shudder – conducted in May 2022, involving an exercise with VICSES, Victoria Police, and fire agencies relating to a major earthquake event. The exercise was led by Victoria Police with the aim of increasing Victoria Police's understanding of its co-ordination responsibilities under the earthquake sub-plan and/or when responding to building collapse, and to increase understanding of the roles and responsibilities of specific agencies and individuals under the earthquake sub-plan.
 - 3.5.7 A series of multi-agency exercises led by VICSES for landslides in the Grampians National Park.
- 3.6 Over the past four years, including May 2022, VICSES personnel have participated in Pre-Seasonal Winter briefings delivered by the State Emergencies and Support Command of Victoria Police with EMV, focussing on seasonal risks. This has included a focus on storm and flood incident escalation practices.
- 3.7 Since the incident that resulted in the death of Mr Loweke, VICSES has continued ongoing engagement with the Municipal Emergency Management Planning Committee to ensure an improved and shared understanding between Mitchell Shire, VICSES and Victoria Police regarding command, control and coordination.

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- 3.8 VICSES notes the recent response to storm events during November 2021 to January 2022 which tested the local command, control and coordination arrangements. Review of these emergency responses indicated improved connectivity across responding agencies.

4. Other matters

- 4.1 In addition to the above matters, VICSES has undertaken, and continues to undertake, extensive work with Mitchell Shire and Victoria Police to implement changes to policies, procedures and emergency planning generally and specific to the area of this incident that compliments the above specific matters, including:

Flood Emergency Planning

- 4.2 The Flood Emergency Plan was updated in 2018 with a further update scheduled for 2022. The scheduled 2022 updates draw on technical information from the Whiteheads Creek Flood Study delivered in 2020.

Flood warning system and infrastructure at the Delatite Road crossing of Whiteheads Creek

- 4.3 The Mitchell Shire Local Government Authority (**LGA**) completed the installation and commissioning of a floodway monitoring warning system for Delatite Road Ford at Whiteheads Creek by November 2018.
- 4.4 This system automatically activates at site signage and notifies the Mitchell Shire, VICSES Seymour Unit, and Victoria Police based at Seymour when the water level is reaching certain thresholds.
- 4.5 A lockable road signage cabinet was installed at the Ford. VICSES, Victoria Police and the LGA all have access to this cabinet and can deploy warning signs.
- 4.6 The system has activated for recent flash flood events in Whiteheads Creek, with VICSES deploying the road signage from the cabinet.

Local Flood Guide

- 4.7 The community local flood guide is scheduled for cyclic review by December 2022. This update will include the flood warning system now in place and relevant information sourced from the Whiteheads Creek flood study.

Community warnings about heavy rainfall and flash flooding

- 4.8 Severe Weather Notification and Activation Process has been updated to enable the VICSES Regional Duty Officer to issue non-predictive flash flood community notifications and/or warnings following receipt of verified reports of flash flooding. These notifications are intended to supplement the severe weather warnings put out by the Bureau of Meteorology, that contain advice about flash flood risk.

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Clarification about readiness levels and triggers for floods and storms

- 4.9 The factors that indicate when an incident ought to be escalated from isolated to aggregated Level 1 was clarified in the September 2017 amendments to the VICSES Operations Manual (volume 4), and in further refinements to the VICSES Operations Manual.
- 4.10 In addition, VICSES developed additional documents to guide VICSES personnel in their preparation and readiness for particular events. Relevantly, this includes a table of Storm and Flood Readiness and Activation Trigger Considerations. A copy of the Flood Activation Considerations and Triggers and Storm Activation Considerations and Triggers is **enclosed** and marked **Annexure 1**.

Yours sincerely

Tim Wiebusch ESM
Chief Officer Operations
Victoria State Emergency Service

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Annexure 1: Flood Activation Considerations and Triggers and Storm Activation Considerations and Triggers.

Readiness Level	RL 1 - Low to Moderate	RL 2 - High	RL 3(A) - Very High	RL 3 (B) - VERY HIGH	RL 4 - SEVERE	RL 5 - EXTREME
Activation Considerations	Thunderstorm Forecast Chart (TFC), issued daily			Severe Weather Intelligence Briefing (SWIB), issued Tuesday & Friday		
Storm Prediction or Warning	SWIB - no colour. No thunderstorms. No severe weather.	SWIB - no colour. TFC shows thunderstorms possible. No severe weather warning (SWW). No severe thunderstorm warning (STW).	SWIB - no colour. TFC - severe thunderstorms possible. SWW - issued for winds and/or possible heavy rainfall. STW - issued for wind and/or heavy rainfall and/or hail. Storm surge - forecast with minimal impacts.	SWIB - coloured yellow. TFC - shows severe thunderstorms likely. SWW - issued for wind* and/or heavy rainfall. STW - issued for wind* and/or heavy rainfall and/or hail. Storm surge - forecast with greater impacts.	SWIB - coloured orange for winds* and/or rainfall. TFC - shows severe thunderstorms likely; including potential for large hail, damaging winds*, and heavy rainfall leading to flash flooding. SWW - issued for damaging winds* and/or heavy rainfall. STW - issued for wind* and/or heavy rainfall and/or hail. Storm tide (normal tide) - forecast.	SWIB - coloured red for damaging to destructive winds* and/or very heavy rainfall. TFC - shows severe thunderstorms likely including potential for giant hail, damaging/destructive winds, heavy rainfall leading to flash flooding. SWW - issued for damaging or destructive winds* or heavy rainfall. STW - issued for super cells possible, heavy rain and/or very dangerous thunderstorm warning issued. Storm tide (high tide) - forecast.
Storm Behaviour	No thunderstorms. No severe weather.	Wind - gusts < 90km/h Rain - rates not conducive to flash flooding. Hail - small (<2cm).	SWIB - 50km/hr+ average winds*, gusts* reaching 90-100 km/hr for prolonged periods. TFC - possibility of thunderstorms may or may not include small hail (<3cm). SWW / STW - chance of flash flooding and damaging winds considered possible.	SWIB - 60km/hr+ average winds*, gusts* reaching over 100km/hr (101-109 km/hr) for 6 or more hour period. TFC - severe thunderstorms possible, high possibility of 3 or 4cm hail, wind gusts* over 100km/hr. SWW - heavy rainfall leading to flash flooding across districts considered possible. STW - localised flash flooding rates of >20mm per 30mins likely.	SWIB - 70km/hr+ average winds*, damaging gusts* reaching over 110km/hr (110-120 km/hr) for 3 or more hour period. TFC - severe thunderstorms likely. SWW - heavy rainfall leading to flash and/or riverine flooding across districts considered likely. STW - possibility of hail of 4-5cm, wind gusts* >110km/hr. Potential for super cell, squall or tornado. Localised flash flooding rates of >30mm per 30mins likely.	SWIB - very unstable weather conditions including 80km/hr+ average winds*, damaging (120km/hr) gusts* for 3 or more hour period certain. TFC - severe thunderstorms likely. SWW - heavy rainfall leading to flash and/or riverine flooding across districts considered very likely. STW - super cells including hail >5cm, wind gusts* >120km/hr. Localised flash flooding rates of >40mm per 30mins. Squalls or tornado likely.
<i>*Consideration: Add 10km/hr to average winds and/or gusts when considering Alpine district predictions and/or warnings based on time of day, time of year, altitude, and area of prediction.</i>						
Storm Activity	Local level Unit response Active RFAs per Unit: Rural 1 - 20 Urban/Metro 1 - 60	Local level Unit response Active RFAs per Unit: Rural 20 - 30 Urban/Metro 60 - 75	Local level Unit response with additional local agency support Active RFAs per Unit: Rural 20 - 30 Urban/Metro 60 - 75 Active RFAs per Region: Rural 60 - 100 Urban/Metro 200 - 250	Multi-unit response with increasing multi-agency response. Active RFAs per Region: Rural 100 - 250 Urban/Metro 250 - 400 ESTA - Critical Incident Response Plan (CIRP) Level 1 activated.	Multi-unit response with multi-agency support and high level of multi-agency response activity (e.g. fire alarms). Active RFAs per Region: Rural 500+ Urban/Metro 400 - 1,000 ESTA - Critical Incident Response Plan (CIRP) Level 2 activated. Event creation has increased to 2-4 per minute. <15 calls waiting.	Multi-unit response and high level of multi-agency response activity with significant impacts across municipalities. Active RFAs per Region: Rural 500+ Urban/Metro 1,000+ ESTA - Critical Incident Response Plan (CIRP) Level 3 activated. Event creation has increased to 4+ per minute. 15+ calls waiting.
Readiness and Activation	VICSES - Business As Usual - Operations			Multi Agency Operations under JSOP 2.03		
State	SCC Monitoring (white) SDO monitoring SAC aware	SCC Monitoring (white) SDO monitoring SAC aware	SCC Monitoring (white) / Tier 1 (blue) SDO and SAC - 60 minute recall or in place. SOCC - 60 minute recall or in place.	SCC Tier 1 (blue) Where 1 level 2 ICC is activated. SDO and SAC - in place. SOCC - in place.	SCC Tier 2 (orange) Where 2+ Level 2 ICCs, or 1 Level 3 ICC is activated. SDO and SAC - in place. SOCC - in place. Night shift on standby, or remote SDO, SAC and SOCC to be rostered.	SCC Tier 3 (red) Where 3+ Level 2 ICCs, or 2+ Level 3 ICC is activated. SDO and SAC - in place for day and night shifts. SOCC - in place for day and night shifts at multiple ESTA locations.
Region	RDO monitoring RAC aware	RDO actively monitoring RAC monitoring	Regional Command - 60 minute recall or in place RAC and RDO - 60 minute recall or in place	Rural - Regional Command in place at RCC or Regional Office, RC notified. Metro - RCC open with base RCT in place. Rural - RDO and RAC in place at RCC or Regional Office. Metro - RC, RAC and RDO in place at RCC.	RCC open - RCT in place, other relevant agencies available on immediate recall. RC, RAC and RDO in place at RCC. Night shift on standby, or remote RDO and RAC to be rostered.	RCC open - Full RCT in place. RC, RAC and RDO in place at RCC for day and night shifts.
Incident			RAC and RDO - 60 minute recall or in place at RCC or Regional Office. Optional support form: Resource Officer Management Support Officer Warnings & Advice Officer Intelligence Officer	Rural - Base IMT on 60 minute recall. Metro - Base IMT in place	Rural - Base IMT in place, with Core IMT on 60 minute recall. Metro - Core IMT in place.	Rural - Core IMT in place, with Full IMT on 60 minute recall. Metro - Full IMT in place.
Effect	Potential Consequences					
People	Some minor inconvenience around local roads.		Increased number of roads being impacted. Traffic management plan should be considered.		Significant number of roads impacted. Traffic management plan is required. Some major roads closed with tree blockages or flash flooding impacts.	
Remote Communities	Inconvenience only.		Some minor isolation and loss of utilities of individual properties or remote communities is likely.		Community isolation and loss of food/supplies potential with resupply requirements dependant on time of power or access outages.	
Health	Little impact expected. Some local issues might be encountered, but managed locally within own facility plans.		Consideration for review and familiarisation with facility plans. VICPOL and DHHS to review Vulnerable persons list.		Highly likely vulnerable people impacted by power outage will require relocation. Communities without power for days needing support.	
Critical Infrastructure	Nil impact.		May require some preparatory work and discussion with owner of infrastructure.		Significant work likely to be required to protect critical infrastructure. Contingency plans put in place if loss of the infrastructure occurs.	
Public Infrastructure	Limited impact.		Some disruption to access to parks and vegetated community areas and infrastructure. Some minor damage to community infrastructure.		Significant damage to community infrastructure and community facilities. Long term closure of key community facilities likely.	
Essential Community Infrastructure	Possible power disruptions.		Likely short term power disruptions.		Power disruptions almost guaranteed, with potential long term outages.	
Water Utilities	Little impact expected some local issues might be encountered but managed locally.		Increased potential but still managed locally. May be minor sewerage overflow issues in isolated areas.		Highly likely that some infrastructure will be impacted, water authorities should develop or initiate their plans to address issues. Significant potential for pollutants including sewerage in water and loss of power will exacerbate the impacts.	
Telecommunications	Unlikely impacts.		Minimal impact to individual premises only.		Significant impact with loss of landlines and mobile powers which will affect peoples capacity to receive warnings and information. Commercial Business impacts with loss of phone services.	
Gas	Little impact expected Some local issues might be encountered but managed locally.		Increased potential for infrastructure damage and disruption but still managed locally.		Likely that some infrastructure will be impacted, supply authorities should develop or initiate their plans to address issues.	
Road Network	Unlikely impacts.		Some minor roads may be impacted with possible disruption to critical needs supplies such as milk.		Highly likely for roads to be cut and egress and access impacted. Major roads potentially cut in some locations traffic diversions in place. Potential rescue of trapped persons in vehicles highly likely. Expected impact on rail routes. Economic impact likely with loss of power and utilities supply for lengthy period.	
Public Transport	Limited impact on public transport routes.		Impact to public transport routes may occur but likely to be minimal with diversions possible		Public transport impacts will occur with roads and rail lines cut and no alternative route available Significant disruption to people movement likely.	
Education	Unlikely impacts.		Some impact expected. Traffic management plan for school buses should be considered.		Some school and preschools may be impacted by utilities loss and damage to infrastructure. School bus routes closed for period of time	
Public Events	May be cancelled due to weather conditions only.		Some public events may need to be cancelled or rescheduled due to safety of patrons either whilst at event or travelling to/from the event.		Public events impacted likely cancellation of major events due to wind impacts and risk, and potential flooding impact on venue or ability to attend or leave event.	
Tourism	Unlikely that event(s) will be impacted but consideration must be given to any event occurring to ensure it is safe to continue.		Potential impact on tourist locations if area not safe to visit or isolated due to road closures.		May impact on high value tourist locations and facilities with long term impacts in the social and economic environment of communities.	
Agriculture	No impact likely with landowners managing any localised issues.		Potential impact with losses to live stock, fencing and crops including high intensive farming of produce and tree farms.		Substantial impact to crops, including high intensive produce farming (vegetables and fruit) and tree farms with short and long term impacts due to loss of crops. Economic impact to area.	
Animal welfare						
Environmental	Minimal impact.		Potential for stream erosion and loss of vegetation around watercourses. Minor tree damage.		Significant disturbance to vegetation with some areas heavily impacted.	
Cultural Heritage	Minimal impact likely.		Some disturbance along watercourses may occur, but likely to be minimal.		Potential for impact on historical structures and features.	
Relief and Recovery	Relief and recovery activity unlikely may be some local issues.		Increased potential for relief and recovery activity, but likely to be managed locally by LGA with support of DHHS.		Formal arrangements put in place for relief and recovery activity. Regional Recovery Commander appointed. Health Commander in place Demands on relief and recovery to be substantial and potentially long term.	

Regional Agency Commander (VICSES) provides advice to the Regional Controller - State Agency Commander (VICSES) provides advice to State Response Controller re: forecast, impacts, and consideration for varying the actual number, distribution and level of IMT required.

Readiness Level	RL 1 - Low to Moderate	RL 2 -High	RL 3(A) - Very High	RL 3 (B) - VERY HIGH	RL 4 - SEVERE	RL 5 - EXTREME
Activation Considerations	Minor		Moderate		Moderate to Major (high end event)	
Flood Prediction	Flood watch issued and/or minor flood warning issued.	Minor flood warning issued.	Low to mid range moderate flood warning issued. 0-1 other rivers in minor flood. Low consequences for built environment based on risk.	Mid to high range moderate flood warning issued. 2+ other rivers in minor flood. Moderate consequences for built environment based on risk.	Major flood warning issued. 2+ other rivers in moderate flood. Moderate risks and consequences for built environment, and economic impacts.	2+ major flood warnings issued. 2+ other rivers in moderate flood. Significant risks and consequences to built environment, and economic impacts. Forecast to exceed 1 in 100 year riverine event. Dam failure considered very likely.
Flood Behaviour	Anticipated continued light rain. Catchments able to absorb predicted rain for consecutive days but may lead to flooding. Nil impacts or consequences predicted unless identified.	Anticipated continued rain. Catchments able to absorb predicted rain for consecutive days with minor flooding occurring. Low lying areas next to water courses are inundated. Minor roads may be closed and low level bridges submerged. In urban areas inundation may affect some backyards and buildings below the floor level as well as bicycle and pedestrian paths. In rural areas removal of stock and equipment may be required.	Anticipated continued rain. Catchments likely to be saturated and unable to absorb continued rain. Areas of inundation are more substantial in size but consequence is low. Main traffic routes may be affected. Unlikely for buildings to be affected above the floor level. Evacuation of flood affected areas may start to be considered. In rural areas, removal of stock is required.	Anticipated continued rain. Catchments are saturated and unable to absorb continued rain. Areas of inundation are more substantial. Main traffic routes may be affected. Some buildings may be affected above the floor level. Evacuation of flood affected areas may be planned for. In rural areas removal of stock is required. Impact assessment may be required.	Anticipated continued heavy rain. Catchments are saturated and unable to absorb continued rain and runoff. Extensive rural areas and/or urban areas are inundated. Many buildings may be affected above floor level. Properties and towns are likely to be isolated. Major rail and traffic routes closed. Evacuation of flood affected areas likely. Utility services likely to be impacted. Impact assessment required.	Anticipated significant extreme weather event that will lead to rapidly rising river conditions. Catchments are saturated and unable to absorb current or additional runoff. Extensive rural areas and/or urban areas are inundated. Many buildings may be affected above the floor level. Properties and towns are likely to be isolated. Major rail and traffic routes closed. Evacuation of flood affected areas likely. Utility services will be impacted. Impact assessment required.
Readiness and Activation	VICES - Business As Usual - Operations			Multi Agency Operations under JSOP 2.03		
State	SCC Monitoring (white) SDO monitoring SAC aware	SCC Monitoring (white) SDO monitoring SAC aware	SCC Monitoring (white) / Tier 1 (blue) SDO and SAC - 60 minute recall or in place.	SCC Tier 1 (blue) Where 1 level 2 ICC is activated. SDO and SAC - in place. SOCC - 60 minute recall or in place.	SCC Tier 2 (orange) Where 2+ Level 2 ICCs, or 1 Level 3 ICC is activated. SDO and SAC - in place. SOCC - in place. Night shift on standby, or remote SDO, SAC and SOCC to be rostered.	SCC Tier 3 (red) Where 3+ Level 2 ICCs, or 2+ Level 3 ICC is activated. SDO and SAC - in place for day and night shifts. SOCC - in place for day and night shifts at multiple ESTA locations.
Region			Regional Command - 60 minute recall or in place	Rural - Regional Command in place at RCC or Regional Office, RC notified. Metro - RCC open with base RCT in place.	RCC open - RCT in place, other relevant agencies available on immediate recall.	RCC open - Full RCT in place.
	RDO monitoring RAC aware	RDO actively monitoring RAC monitoring	RAC and RDO - 60 minute recall or in place	Rural - RDO and RAC in place at RCC or Regional Office. Metro - RC, RAC and RDO in place at RCC.	RC, RAC and RDO in place at RCC. Night shift on standby, or remote RDO and RAC to be rostered.	RC, RAC and RDO in place at RCC for day and night shifts.
Incident			Base IMT on 60 minute recall.	Base IMT in place	Rural - Base IMT in place, with Core IMT on 60 minute recall. Metro - Core IMT in place.	Rural - Core IMT in place, with Full IMT on 60 minute recall. Metro - Full IMT in place.
Effect	Potential Consequences					
People	Some minor inconvenience around local roads.		Increased number of roads being impacted. Traffic management plan should be considered.		Significant number of roads impacted. Traffic management plan is required. Some major roads closed with isolation or evacuation possible.	
Remote Communities	Inconvenience only.		Some minor isolation and loss of utilities of individual properties or remote communities is likely.		Community isolation likely with resupply requirements as well as evacuation considerations needed.	
Health	Little impact expected. Some local issues might be encountered, but managed locally within own facility plans.		Consideration for review and familiarisation with facility plans. VICPOL and DHHS to review Vulnerable persons list.		Highly likely some hospitals and vulnerable people will become isolated and require evacuation.	
Critical Infrastructure	Nil impact.		May require some preparatory work and discussion with owner of infrastructure.		Significant work likely to be required to protect critical infrastructure. Contingency plans put in place if loss of the infrastructure occurs.	
Public Infrastructure Essential Community Infrastructure	Limited impact.		Some disruption to access to parks and low lying community areas and infrastructure. Some minor damage to community infrastructure built on floodplains.		Significant damage to road infrastructure and community facilities. Long term closure of key community facilities likely.	
Power	Possible power disruptions.		Likely short term power disruptions.		Power disruptions likely, with some substations impacted and potential long term outages.	
Water Utilities	Little impact expected some local issues might be encountered but managed locally.		Increased potential but still managed locally. May be minor sewerage overflow issues in isolated areas.		Highly likely that some infrastructure will be impacted. Water authorities should develop or initiate their plans to address issues. Significant potential for pollutants including sewerage in water.	
Telecommunications	Nil impact.		Minimal impact to individual premises only.		Significant impact with loss of landlines and mobile powers which will affect people's capacity to receive warnings and information.	
Gas	Little impact expected Some local issues might be encountered but managed locally.		Increased potential for infrastructure damage and disruption but still managed locally.		Likely that some infrastructure will be impacted, supply authorities should develop or initiate their plans to address issues.	
Road Network	Unlikely to impact.		Some minor roads may be impacted with possible disruption to critical needs supplies such as milk.		Highly likely for roads to be cut and egress and access impacted. Major roads potentially cut in some locations, traffic diversions in place. Potential rescue of trapped persons in vehicles. Expected impact on rail routes. Economic impact likely with loss of commercial transport routes.	
Public Transport	Limited impact on public transport routes.		Impact to public transport routes may occur but likely to be minimal with diversions possible.		Public transport impacts will occur with roads and rail lines cut and no alternative route available. Significant disruption to people movement likely.	
Education	Unlikely impact.		Some impact expected. Traffic management plan for school buses should be considered.		Some school and preschools may be inundated. School bus routes closures.	
Public Events	Maybe cancelled due to weather conditions only.		Some public events may need to be cancelled or rescheduled due to safety of patrons either whilst at event or travelling to/from the event.		Likely cancellation of major events due to risk, and potential flooding impact on venue or ability to attend or leave event.	
Tourism	Unlikely that event(s) will be impacted but consideration must be given to any event occurring to ensure it is safe to continue.		Potential impact on tourist locations if area not safe to visit or isolated due to road closures.		May impact on high value tourist locations and facilities with long term impacts in the social and economic environment of communities.	
Agriculture Animal welfare	No impact likely with landowners managing any localised issues.		Potential impact with losses to live stock, fencing and crops including high intensive farming of produce and tree farms.		Substantial impact to live stock, fencing (widespread), farm machinery and crops. Short and long term impacts to high intensive produce farming due to loss of soil and erosion. Highly likely need for stock movement support and fodder resupply for isolated stock	
Environmental	Minimal impact, some minor watercourse erosion.		Stream erosion and loss of vegetation around watercourses.		Significant disturbance to soil and vegetation.	
Cultural Heritage	Minimal impact likely.		Some disturbance along watercourses may occur but likely to be minimal.		Potential for significant disturbance especially of flood of significance in area and flood of record height.	
Relief and Recovery	Relief and recovery activity unlikely, may be some local issues.		Increased potential for relief and recovery activity but likely to be managed locally by LGA with support of DHHS.		Formal arrangements put in place for relief and recovery activity. Regional Recovery Commander appointed. Health Commander in place. Demands on relief and recovery to be substantial and potentially long term.	

Regional Agency Commander (VICES) provides advice to the Regional Controller - State Agency Commander (VICES) provides advice to State Response Controller re: forecast, impacts, and consideration for varying the actual number, distribution and level of IMT required.