10.26 Supporting VICSES Storm and Flood Operations SOP

Section 1 - Purpose and Objectives

(1) To provide guidance to CFA members on supporting response and recovery activities at storm and flood events.

Section 2 - Scope

(2) This procedure applies to all CFA members supporting VICSES storm and flood operations.

Section 3 - Procedure

Responsibility

(3) In accordance with the Roles and Responsibilities section of the State Emergency Management Plan (2023), Victoria State Emergency Service (VICSES) is the control agency for flood and storm operations.

(4) CFA is a support agency for these incidents.

Establishing Effective Liaison and Communication with the Control Agency – VICSES

(5) Where planned operations occur, the CFA crew should establish contact with the VICSES Incident Controller or Incident Management Team (IMT) including Division and/or Sector Commanders.

(6) Additionally, the following steps should occur in all incidents/operations where CFA is supporting VICSES storm and flood response:

a. Registering your crew (e.g. at the staging area or with the local SES Unit).
b. Completing a T-card.
c. Obtaining a briefing including any known hazards and safety considerations.
d. Confirming reporting lines.
e. Agreeing on the communications system between the SES and CFA crew(s) so that at all times crew can receive timely updates on the storm and flood situation.

(7) Crew leaders must report any injuries sustained during these operations and/or any damage to CFA property through the Chain of Command. Where appropriate the CFA Agency Commander / State Duty Officer (SDO)/District Duty Officer (DDO) should notify VICSES of relevant injuries or near-miss situations.

Supporting Storm Operations

(8) Storms can create complex operating conditions that can threaten CFA members' and the community's health and safety. The most common hazards in storm events are: fallen trees, scattered debris, high winds, thunder/lightning, heavy rain, and hail.

(9) Cutting trees is a common task undertaken when supporting VICSES storm operations. The following must be accounted for when undergoing such activities:

a. Only members who have chainsaw qualifications may undertake these activities, CFA members qualified in this may utilise chainsaw techniques in accordance with training.
b. Similarly, cutting trees at heights (e.g. on a roof) should only be undertaken by members who are both chainsaw and safe work at heights qualified.

Traveling and Operating in Flood Affected Areas

Crew Safety

(10) Crews must be aware of the dangers of flood water:

a. CFA members should be aware of the potential risks when entering into fast-moving water or flood debris. Therefore, to avoid potential injury, CFA members are not to enter water that is over knee-deep.
    i. CFA members are to consider the potential unknown hazards under the surface of the water, such as hidden burrows, access pits, and ditches.
    ii. Walk slowly when walking through water and have someone monitor your progress if the ground surface is unknown.
    iii. CFA members must comply with state laws and regulations and wear a life jacket (also known as a PFD) on any maritime vessel during operations. Life jackets must be worn in heightened-risk situations in accordance with the Marine Safety Regulations 2023.
    iv. When operating on or around marine vessels, including working from structures over a water body, piers, jetties, and marinas, CFA members should conduct a dynamic risk assessment.
b. When working at night there are increased risks due to poor visibility, hence, increased concentration and vigilance is required.

(11) Personal safety is paramount and crews should not enter water bodies where any risks are identified (e.g. unknown or high-risk depth, current, or ground surface).

Operating CFA Vehicles/Appliances

(12) Extreme care must be taken before considering driving through water due to unknown depths, debris, submerged objects, stability of the ground, or other unknown hazards.

(13) Road closures must be observed. Seeking an alternate route or alternate means of access is the best option.

(14) Where there is no alternate route or means of access and there is a threat to life or property, stop and undertake a dynamic risk assessment before entering the water. If it is deemed safe to proceed, CFA vehicles should not drive through flood water more than:

a. The height of the appliance's axle height (wheel centre) for firefighting vehicles.
b. The top of the wheel rim (upper rim) for four wheel and all wheel drive vehicles.

(15) If deemed necessary by the Incident Controller, CFA vehicles can be driven into water higher than the levels in clause 14 above when required to perform lifesaving rescues. A dynamic risk assessment must be conducted to determine that it is safe to do so.

(16) Once in the water, maintain momentum. DO NOT STOP.

(17) Dry and test the brakes after exiting the flood water.

(18) If any vehicle enters flood waters where the water level exceeds the heights as described in clause 14, ensure the District Mechanical Officer(s) are notified and the vehicle should be inspected immediately. The District Mechanical Officer(s) will determine whether continued operation of the vehicle can occur.

(19) When traveling in the back of CFA vehicles, all CFA members must remain seated and seat belts are to be worn at all times.

Personal Protective Clothing

(20) Wildfire Personal Protective Clothing (PPC) or rescue overalls and a helmet should be worn if operating outside of a CFA vehicle.

(21) Structural Personal Protective Clothing (PPC) is not suitable for floodwater as the weight of the saturated ensemble creates a drowning risk. The structural ensemble also restricts the ability to dissipate body heat, leading to heat stress and rapid onset fatigue.

(22) Correct Personal Protective Clothing (PPC) should be worn when cutting trees and when in the proximity of unstable or fallen trees and structures.

(23) Storms and floods often carry debris containing asbestos containing material, appropriate Personal Protective Clothing (PPC) should be worn in accordance with the Chief Officer's SOP 10.03 Asbestos Incidents.

(24) Wading boots should not be worn when operationally practicable in flood operations. Boots and other footwear should be treated with an antibacterial/fungal powder and should be dried thoroughly after use.

(25) When operationally practicable, leather gloves should not be worn during flood operations because they may become slippery when wet, hindering safety and operations. If there is concern over potential contaminants or sources of infection disposable nitrile gloves can be worn.

(26) If decontamination of Personal Protective Clothing (PPC) is required and alternative arrangements have not been made by VICSES, follow the procedure in the Chief Officer's SOP 11.01 Infection Control at Incidents.

Swift Water Rescue

(27) CFA does not have a swift water rescue capability and members should not attempt swift water rescue – Victoria Police is the control agency for Water Rescue supported by VICSES.

(28) CFA rope techniques are not suitable for swift water events/rescue.

(29) CFA can support agencies in other ways such as maintaining safety appliance/vehicle access and crowd control.

Managing Fatigue, Hydration, and Exposure

(30) There is potential for sustained physical work in high humidity which can lead to rapid onset of fatigue. Ensure suitable rest breaks are taken.

(31) Wearing waterproof clothing and sustained physical activity can induce dehydration. Ensure fluid intake as per CFA recommendations.

(32) Exposure (operating while wet, windy, and cold during storm and rain events) can lead to hyperthermia (heat stress) or hypothermia (cold, shivering, frostbite etc). Change into dry and warm clothes as soon as possible.

Safety Note

(33) Safety concerns and potential hazards:

a. Falling/fallen trees.
b. Flying objects/debris.
c. Damaged structures may be unstable, contain shattered glass, or other hidden hazards such as electricity, gas, or asbestos.
d. Fast flowing and/or deep water including across roadways.
e. Erosion of road surfaces and/or footpaths.
f. Below surface debris hazards.
g. Heavy objects in the water leading to the risk of entrapment.
h. Fallen trees that have been eroded around the base and exposed to high winds.
i. Damaged electrical equipment and power lines.
j. Contaminated water and soil, potential contaminants include sewerage, chemicals, fuel, garbage, and other debris.
k. Biological hazards from insects and/or dead stock.
l. Uncontrolled distressed animals/stock.
m. Bites from snakes, spiders, and mosquitoes that have been disturbed.
n. Care must be taken when mounting and dismounting vehicles due to wet and/or muddy steps or work areas which present a slip hazard.

(34) In the event that there are concerns over the presence of or exposure to infectious or contaminated substances, please refer to the following Chief Officer's SOPs:

a. 11.01 Infection Control at Incidents SOP.
b. 11.02 Medical Monitoring – Biological and Hazardous Substances SOP.

Environmental Note

(35) Nil.

Section 4 - Definitions

Commonly defined terms are located in the CFA centralised glossary. Document-specific definitions are listed below.

Flash Flood: A flood that rises quite rapidly with little or no advance warning, usually as a result of intense rainfall over a small area or dam failure, etc.

Swift Water: Water that a boat with a motor cannot operate in, it includes rapids, shallow water, storm drains, mountain rivers etc. This type of water is influenced by rainfall, can rise and fall quickly, and moves down a gradient at a speed in excess of 2km/hr (greater than walking pace). Stormwater drains are also defined as swift water operations. Swift water rescue uses roping systems and other specialist equipment where rescuers operate from land.

Section 5 - Related Documents

State Emergency Management Plan 2023

State Emergency Management Plan, Flood Sub-Plan 2022

9.31 Welfare of CFA Members SOP

VICSES Maintain Safety Storms and Floods Training Package

Status and Details

Status	Not Yet Approved
Effective Date	To Be Advised
Review Date	To Be Advised
Approval Authority	
Approval Date	To Be Advised
Expiry Date	Not Applicable
Accountable Officer	Jason Heffernan Chief Officer
Responsible Officer	Tim Connor Senior Manager Governance Services
Author	Emma Pollard
Enquiries Contact	Specialist Response

Glossary Terms and Definitions

"CFA member" - Refers to all CFA volunteers, volunteer auxiliary workers, officers, employees and secondees.

"CFA vehicle" - All vehicles owned or operated by CFA or any Group or Brigade. This includes FRV vehicles being driven by an FRV Secondee.

"Incident Controller" - The individual designated by the control agency to have overall management of the incident and who is responsible for all incident activities.

"Dynamic Risk Assessment" - The continuous assessment and control of risk in the rapidly changing circumstances of an operational incident. DRA is an intuitive thought process and is typically not recorded.

"Asbestos containing material" - Asbestos containing material means any material or object that contains asbestos (other than plant in which asbestos is fixed or installed, The Occupational Health and Safety Regulations (2017) – Part 1.1(5) Definitions). ACM that when dry can, either in its current state or as a result of a work process, be pulverised or reduced to powder by hand pressure is called a Friable ACM. Examples of friable ACM include: pipe lagging fire retardant material on steel work sprayed insulation vinyl sheet with fibrous asbestos backing. Friable asbestos is more likely to release airborne asbestos fibres when disturbed. Non-friable ACM refers to any ACM where the asbestos fibres are usually bonded or mixed with a stable cement or other hard bonding component and so cannot be crumbled, pulverised or reduced to powder by hand pressure. Examples of non-friable ACM include: asbestos cement sheet asbestos cement moulded products bitumen-based water proofing vinyl floor tiles Non-friable asbestos in good condition is unlikely to produce airborne fibres unless it is disturbed. Non-friable ACMs can deteriorate, resulting in their re-classification as 'friable'. An example is Cement sheeting can become friable because of: impact or crushing natural weathering events an extreme event such as heat from a fire.

"Personal Protective Clothing (PPC)" - Includes clothing used to provide protection to CFA members from the risks associated with performing a specific operational task for which they are competent and endorsed

"Control Agency" - The agency nominated to control the response activities to a specified type of emergency.

"Incident Management Team (IMT)" - The group of incident management personnel comprising the Incident Controller, and the personnel he or she appoints to be responsible for the functions of Operations, Planning and Logistics.

"Flood" - The overflowing by water of the normal confines of a stream or other body of water, or the accumulation of water by drainage over areas which are not normally submerged.

"Storm" - Storms are often accompanied by strong winds, large hailstones, flash flooding and lightning and can cause significant damage to homes, businesses, community infrastructure and the natural environment.

"Vessel" - Any kind of vessel that is used or capable of being used in navigation by water.