

Managing Vehicle & Equipment Biosecurity

The ACT Rural Fire Service Chief Officer has issued this standard operating procedure under Section 38(1) of the *Emergencies Act 2004* – A Chief Officer may determine standards and protocols.

Purpose

This standard operating procedure (SOP) provides recommended procedures to be followed to prevent the spread of weeds and soil and water borne diseases from ACT Rural Fire Service (ACT RFS) vehicles across parks, reserves and rural leases in the ACT.

Applicability

This SOP is applicable to all vehicles used by the ACT RFS.

Background

ACT RFS vehicles are used on fire trails and off paved roads. They are likely to accumulate mud and soil in wheel arches and under chassis areas. As a result, seeds from noxious weeds, and water and soil borne diseases can spread unintentionally when vehicles are driven across parks, reserves and rural leases.

In addition, special consideration is required for fire fighting operations in the Cotter Catchment to prevent the spread of Epizootic Haematopoietic Necrosis (EHN) virus that affects fish including threatened native species in the ACT. EHN virus has been responsible for fish kills in lakes and streams in many parts of the ACT but has not been found in the Cotter Catchment above Cotter Dam. The disease can be spread by infected fish, infected water or equipment that has been in contact with infected water. The virus appears to be very resistant to drying and has been found active in tanks after several months drying. As firefighting equipment is often used for drafting water from lakes and streams where the virus is known, it is important that, the equipment and any water is decontaminated before use for hazard reduction activities in the Cotter Catchment above Cotter Dam.

This SOP must be followed for all hazard reduction burning. In emergency situations, the SOP should be followed as far as is practicable.

The following map shows the EHN Exclusion Zone, (orange hatching).



Responsibilities

RFS Members	Ensure contamination by soil, weeds and EHN virus is avoided.
Officer in Charge (OIC)	Ensure crews undertake appropriate cleaning / decontamination steps.

Operating procedure

Removing mud, soil, seeds and weeds

Wherever possible, RFS driver should avoid driving through infestations of weeds such as serrated tussock or African love grass.

Vehicles, plant and machinery arriving or leaving the fireground or staging area should be clean and mud-free.

Wherever possible, after RFS vehicles are used on non-paved areas, they should be washed to remove any accumulated soil on or under the vehicle to avoid the spread of weeds and soil-based diseases.

After working in serrated tussock or African love grass, clean boots, hoses, rakes, hoes and shovels on site to remove all seeds.

Fire fighting in the Cotter Catchment

Extra precautions must be taken for all hazard reduction activities when working in the Cotter Catchment to prevent contamination of the waterways from EHN virus. In an emergency, these precautions should also be taken as far as is practicable:

- All water used for fire suppression in the Cotter River Catchment EHN Exclusion Zone should be sourced from potable sources or be extracted from the Cotter River above Cotter Dam, to prevent EHN virus being introduced to the catchment.
- All drafting equipment used in EHN infected waters (the rest of the ACT) should be sterilised in a chlorine solution before being used in Cotter Catchment, to prevent EHN virus being introduced.
- Where practicable, fire water storage units (tankers, buoy-walls etc.) should be sterilised using chlorine before entering the Cotter Catchment, to prevent EHN virus being introduced.

Required concentration

A relatively low concentrations of chlorine solution (0.02% or 200 parts per million [ppm]) is sufficient to kill the virus and should be used to decontaminate firefighting equipment.

Household bleach is around 5.25% available chlorine, the table below shows the approximate amounts of household bleach required for a solution of 200ppm.

Volume of water in tank (litres)	Required volume of bleach (5.25% available chlorine)
25	100ml
50	200ml
100	400ml
360	1.44l

Decontaminating tanks, pumps and hoses

1. Drain all water from unit.
2. Fill unit with Canberra town water or rainwater to a point just above the outlet to the pump. Estimate the volume of water in the tank.
3. Wearing PPE (overall, gauntlet gloves, etc) half fill a 10 litre bucket with Canberra town water or rainwater. Add enough bleach to the bucket to provide a solution of 0.02% available chlorine according to the capacity of the tank. (See the table above.) Pour the contents of the bucket into the tank, taking care not to spill the contents anywhere else.
4. Adjust the valves on the unit to recirculate from the tank, back into the tank.
5. Start pump and run at about half throttle for 2 minutes.
6. All reel hoses and unit hoses are then decontaminated by placing the branch inside the lid of the tank and closing the lid to trap the hose. Ensure the hose cannot accidentally leave the tank. Adjust valves to allow some solution to pass through the hoses AT LOW PRESSURE for at least 2 minutes.
7. Decontaminate suction hoses and associated fittings by placing them in a large plastic tub containing the solution and soaking for 2 minutes.


8. Discharge all the solution onto bare ground or gravelled area or pump into another tanker to be cleaned (adjust chlorine for volume if required). Be aware that the solution is mildly toxic to plants and highly toxic to aquatic life forms, but breaks down quickly in the environment.
9. Refill tank with Canberra town water or rainwater and rinse through all hoses and pump fittings to avoid degradation from the chlorine.
10. Label vehicle as EHN decontaminated and the date.

Document information

Version history

Author	Version	Version Approval Date	Summary of Changes
Andrew Stark	1.0	20/08/2015	Version 1.0
Rohan Scott	2.0	05/03/2020	Reviewed and updated for EHN virus, African love grass, etc.
Steve Quinlan	2.0	23/3/23	Administrative review w/. PCS

Approved by

Name	Title/Role	Signature	Date
Rohan Scott	CO ACT RFS		

Document Owner

Position	Section
RFS Director Operations	Operations

Next review due: 1/2/27

Related documents

Document name
Emergencies Act 2004
Environment Protection Act 1997
3.1.9 Command Vehicle Use Service Standard

Signed documents will be scanned and filed in TRIM.