

PFAS Contamination Detected at the State Training Centre

Background

September 2019

Historically the CFS used firefighting foam containing per and polyfluoroalkyl substances (PFAS), however the CFS ceased using PFAS containing firefighting foam at the State Training Centre approximately 20 years ago.

Initial testing conducted for water quality at the Brukunga Mine site by the EPA identified that water within the Dawesley Creek contained elevated levels of PFAS within the Dawesley Creek.

As a result of this initial investigation, GHD Pty Ltd (GHD) was commissioned by the South Australian Country Fire Service (CFS) on the 25 September 2019 to conduct an environmental investigation at the CFS State Training Centre located on Pyrites Road, Brukunga.

2 October 2019

An environmental field investigation was undertaken by GHD on the 2 October 2019 and involved the following scope of works:

- Collection of soil samples from areas adjacent to where runoff from the fire training hot pads occurs
- Collection of composite concrete samples from locations within Hot Pad A and Hot Pad B, hardstand areas located in the central part of the site and used for the firefighting training purposes
- Collection of water samples from the on-site water storage tank
- Collection of water samples from the Acid Treatment Plant.
- Collection of water samples from along Dawesley Creek and associated settling ponds.
- Collection of a soil sample from sludge waste located in the Mine Site.

21 October 2019

PFAS concentrations were detected in concrete dust, pavers and soil surrounding the site as well as water held within an underground storage tank onsite and the adjacent Dawesley Creek.

The distribution of PFAS on and adjacent to the site with consideration to the historical use of PFAS containing firefighting foam suggests the CFS training site is a source of PFAS to the environment.

Elevated concentrations of PFAS were detected in the underground storage tanks used to hold fire training water resulting from PFAS entering the tank during fire training activities, as well as during wet weather events and leaching of PFAS from concrete surfaces.

The detectable concentrations of PFAS in Dawesley Creek was considered to threaten groundwater and a **Section 83A Notification of Site Contamination of Underground Water**, was submitted in accordance with the Environment Protection Act 1993 to the South Australian Environment Protection Authority on 21 October 2019.

1 November 2019

The South Australian Country Fire Service (CFS) met with representatives of the EPA and GHD on the 1 November 2019.

The EPA stated that the site is considered to be a Level 1 regulatory priority in accordance with the EPA publication Site Contamination Regulatory and Orphan Site Management Framework³ (2017) and that a Voluntary Site Contamination Assessment Plan (VSCAP) is required for effective regulation of the site.

The EPA outlined the following requirements:

- Future assessment works are to be undertaken under a VSCAP which will outline the assessment methodology, timeframes and deliverables' milestones, to be submitted to the EPA.
- Future assessment works should aim to understand the nature and extent of identified PFAS contamination associated with the site and to identify and assess any potential risks to human health and the environment.
- Site contamination auditor be engaged to prepare a site contamination audit report as part of the VSCAP process.
- The provision of community engagement of relevant stakeholders (local residents and downstream users of Dawesley Creek):
 - Prior to development of the VSCAP, to communicate results of assessment undertaken to date; and
 - As part of the VSCAP, to communicate results of additional assessment undertaken.
- The SACFS appointed an accredited site contamination auditor (Ruth Keogh of Fyfe Pty Ltd) in November 2019 in accordance with the Environment Protection Act 1993 (the Act) and Environmental Protection Regulations 2009 (the Regulations).

5 December 2019

The required Voluntary Site Contamination Assessment Proposal (VSCAP) was provided to the south Australian Environmental Protection authority [SA EPA] by the SACFS, in accordance with Section 1031 of the Environmental Protection Act 1993.

13 January 2020

The CFS State Training Centre hand delivered a Community Letter to all residents of Brukunga and landowners downstream of the Training Centre.

The Letter is included below.

CFS State Training Centre
C/- Post Office Nairne SA 5252
Pyrites Road, Brukunga
T: 08 8398 9900
E: cfstraining@sa.gov.au

Dear Resident

I am writing to you as the SA Country Fire Service (CFS) has recently undertaken assessment of per- and poly-fluoroalkyl substances (PFAS) at the CFS State Training Centre in Brukunga and water in the adjacent Dawesley Creek.

PFAS are a group of chemicals that have been used in a range of industrial and consumer products since the 1950s, including some types of firefighting foams. Firefighting foams containing PFAS were historically used at the Training Centre. Large quantities have not been used at the site since 2001, when use was restricted to Portable Fire Extinguishers only. South Australia was the first state to ban the use of fluorinated firefighting foams, with the ban coming into effect on 30 January 2020 after a two-year transition period. The CFS have not used fluorinated firefighting foams during the transition period.

The CFS has contracted an engineering company (GHD) to undertake additional site contamination assessment to investigate the extent of the contamination and any potential risks. This work will be undertaken in consultation with the Environment Protection Authority (EPA) and the Department for Energy and Mining, and will be overseen by a Site Contamination Auditor, accredited by the EPA (Dr Ruth Keogh of Fyfe).

In January 2020, the CFS will be holding an information session at the State Training Centre. This will be an opportunity for the community to ask questions and talk to staff, and I will write to you again in the near future to provide further information about when this will take place.

In the meantime if you would like more information there is a Fact Sheet on the CFS website about PFAS (www.cfs.sa.gov.au/pfas).

If you have any questions, please contact us on **8398 9980** or email:
david.jeffree@sa.gov.au

Yours faithfully

MARK JONES QFSM
CFS CHIEF OFFICER
SA COUNTRY FIRE SERVICE

28 January 2020

On the evening of January 28th, Assistant Chief Officer Brenton Eden AFSM, the Director of Operational Training and Professional Development, hosted a Community Meeting at the State Training Centre, with staff from the State Training Centre, interested residents / landowners, representatives from Local Government, the EPA, GHD Pty Ltd, and the independent auditor Dr Ruth Keogh, Principal Environmental Scientist.

This question and answer session outlined actioned taken to date, issues identified and steps to be taken over the coming months to determine the extent of the problem.

CFS undertook to keep interested community members informed through the CFS website.

11 February 2020

In accordance with the agreed 'Preliminary Sampling, Analysis and Quality Plan, testing commenced at the State Training Centre and surrounds of soil, stored water, creek water, bore water, concrete and paving.