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Media Release

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Cockburn wins grant to help CSIRO develop national fire risk reduction tool

When the Banjup fires took hold in February 2014, Michael Emery witnessed the panic of local homeowners as they struggled to remove their families, pets and livestock from the semi-rural and urban areas under threat.

It prompted the City of Cockburn Rangers & Community Safety Manager to apply to the 2016-17 Natural Disaster Resilience Program to fund a project that could increase fire safety not just in Cockburn, but potentially Australia-wide.

The successful application received a $95,000 grant that will enable the City to collaborate with the CSIRO to develop a software program that could revolutionise fire prevention, significantly reducing future fire risk, fatalities and property and infrastructure loss and damage.

The City of Cockburn is one of 45 WA local government areas classified as having an extreme fire risk, due to extensive urban areas located beside rural and bushland settings.

Thanks to the efforts of more than 200 firefighters and water bombers, of the 20 homes damaged across 500ha between Forrestfield and Atwell in the 2014 fire, only two in Atwell were destroyed due to embers being sucked into roof spaces via air-conditioning units left on during the fire.

Mr Emery, the City's Emergency Management & Project Coordinator at the time of the Banjup fires, said the software – or Bushfire Risk Identification Tool (BRIT) – would identify risk levels to individual homes and specific areas using data collected as part of Bushfire Attack Level (BAL) statistics already on record.

CSIRO Senior Principal Research Scientist, Dr Mahesh Prakash said the tool would incorporate technology used in Spark, a bushfire simulation toolkit developed by the CSIRO to analyse and visualise the spread of fire.

"It will also include new fire science such as radiant heat and ember attack models from

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CSIROs Land and Water, for improved calculations and bushfire risk," Dr Prakash said.

Under Australian Standards (AS 3959), buildings or developments in bushfire-prone areas undergo a BAL assessment to measure their potential exposure to ember attack, radiant heat and direct flame contact, determining construction methods and materials.

"Once peer-reviewed and launched next July, the tool will be the first of its kind in Australia and usable nationally," Mr Emery said.

"CSIROs close involvement will provide the ability to scale up the capability so it can be used nationally.

"Given the importance of this software, the project is being closely monitored and supported by the State's Office of Emergency Management and Office of Bushfire Risk Management, along with the Department of Fire and Emergency Services.

"BRIT will help the City assess and keep track of bushfire risk and create dynamic models based on weather conditions to understand how our community is affected by bushfire risk.

"It means we'll be able to better reduce fire risks with preventative treatments like hazard burns, all based on scientific fire modelling to help us plan for potential future bushfires."

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