

Senate Standing Committee on Economics
ANSWERS TO QUESTIONS ON NOTICE
Innovation, Industry, Science and Research Portfolio
Budget Estimates Hearing 2010-11
31 May 2010

AGENCY/DEPARTMENT: COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION

TOPIC: Bushfire Research

REFERENCE: Question on Notice (Hansard 31 May 2010, E25)

QUESTION No.: BI-12

Senator McGAURAN—...In relation to bushfire research, first of all, are there any proposed cutbacks in that area; and what research is being undertaken at the moment?

Dr Clark—In terms of covering some detail in our bushfire area, I would direct that question to Dr Johnson.

Dr Johnson—Senator McGauran, we have an extensive engagement in providing research around bushfires. It could probably be divided into five, maybe six, categories. We have an extensive program of work describing, effectively, learning's from the past, and I would be happy to supply you with more detailed information. For example, we have a groundbreaking study on the survivability of cars trapped in firestorms, we have looked at a house vulnerability assessment tool for assessing assets in bushfire prone areas and we have looked at the robustness and the role played by residential centre systems and water storage tanks in bushfire prone areas. We have also been working with colleagues in Victoria to develop housing which is much more resistant to bushfires. We have just recently flame-tested a house constructed from steel and featuring a non-flammable roof cavity. We have done extensive work with the Country Fire Authority around fire tanker crew protection systems. We have also worked extensively with the Bureau of Meteorology to improve our ability to forecast dangerous bushfire weather.

ANSWER

Bushfire research remains an important area of research for CSIRO. No significant cutbacks are planned but normal operational issues such as budget and workforce planning may lead to some changes.

CSIRO has over 40 years of involvement in bushfire research including work on understanding and predicting bushfire behaviour; evaluating the impact of bushfires on infrastructure; ecological responses to fire; the impact of climate change on bushfire risk; and pollutants and greenhouse gases as a result of bushfires

The CSIRO Fire Science and Technology Laboratory operates is the most comprehensive fire research, consulting and test facility in Australia. The combination of expertise and full-scale fire test capabilities provides a unique facility to industry, capable of simulating a wide range of fire scenarios. The Fire Science and Testing Laboratory carries out research, testing, certification and standardisation in the areas of Reaction-to-Fire, Fire Resistance and Fire Protection.

The CSIRO Pyrotron, launched in November 2008 by Minister Carr, is a 25 metre long fire-proof wind tunnel with a working section for conducting experiments and a glass observation area. The Pyrotron is being used to study the combustion and spread of fires in bushfire fuel under controlled conditions.

Both of these facilities are being used on an ongoing basis to understand fire prevention, behaviour and control.

Some of CSIRO's recent fire related research activities include:

- a trial burnover of a "fire proof house" to determine whether a house constructed almost entirely from steel and featuring a non-flammable roof cavity might provide a straightforward and affordable building option for bushfire-prone areas. See also answer to BI-14.
- Post bushfire survey investigations that involve major house loss from Ash Wednesday to present. The culmination of this research effort has underpinned extensive policy and regulatory development and reform for building design, planning and community education under the umbrella of the AFAC
- CSIRO and the Bureau of Meteorology's joint operation the Centre for Australian Weather and Climate Research has improved our ability to forecast bushfire weather – including wind changes and other factors that affect fire spread behaviour particularly understanding the causes of abrupt reductions in surface humidity. Research outputs and outcomes are used operationally by the Bureau of Meteorology.