Submission No 45

INQUIRY INTO WAMBELONG FIRE

Organisation: The Australian National University

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The Director

General Purpose Standing Committee No.5

Parliament House
Macquarie St
Sydney NSW 2000

Dear Director

On the 13 January 2013 the Siding Spring Observatory Campus was impacted by a bushfire which started in the Warrumbungle National Park.

History of the SSO site

Siding Spring Observatory was initially established as a field station for Mount Stromlo Observatory, after light pollution from the growing city of Canberra began to adversely affect visibility. A search began for a new observatory site in the early 1950s, and by 1959, five sites in New South Wales were identified. In 1960, Arthur Hogg from Mt Stromlo, was appointed to coordinate the site testing programme, with strict criteria, including the need for the site to be remote from city lights, have a high percentage of cloudless nights—especially between September to March when the magellanic clouds are favourably placed, have steady atmospheric conditions, be within a day's drive of Canberra and be within 30-40 miles of a town.

By 1962, all other options had been eliminated leaving Siding Spring near Coonabarabran and Mt Bingar near Griffith as the final contenders. Director of Astronomy at Mt Stromlo Bart Bok favoured the Mt Bingar site, however on May 12 1962, Leonard Huxley, the Vice Chancellor of the Australian National University made the final decision and Siding Spring was chosen to be the site of the new field station for the Mt Stromlo Observatory. From the time of approval, things moved very quickly with the first two telescopes (40 inch and 16 inch) being ordered from Boller and Chivens in the United States soon after the site was chosen.

The observatory is currently home to a number of telescopes belonging to both local and international organisations including the 2.3m Advanced Technology Telescope; the 3.9m Anglo-Australian Telescope, the 1.2m UK Schmidt telescope, the Uppsala Schmidt telescope, the Faulkes South Telescope, the UNSW APT, ROTSE IIIa, Korea's YStar-Neopat Telescope and the ANU's automated survey telescope, Skymapper.

Bushfire Management

For a number of years ANU, RFS and National Parks have undertaken joint hazard reduction burns in and around Siding Spring Observatory Campus to lessen the impact of fire on the Buildings and Infrastructure. The last prescribed joint hazard reduction burn occurred in 2012.

In recent years there has been some turnover of ANU staff including the position of Site Operations Manager so it is hard to document the level of communication between National Parks, RFS and the ANU. The last known time the ANU was involved with a bushfire management plan for the area was when the

Castlereagh Zone Bush Fire Management Committee drafted a 2004-2008 Siding Spring Site Protection Plan.

After the lessons learnt from the 2003 Canberra Fires which destroyed the ANU Mt Stromlo Observatory, the ANU invested significant funds and resources into hardening and protecting the site, buildings and infrastructure at the SSO Campus from fires. All buildings were painted with intumescent paint and fire screens were fitted to all windows, doors and openings.

In addition to hardening up the site, the ANU also conducts annual bushfire risk assessment at the Campus to identify any shortfalls in bushfire preparedness.

In 2013 the ANU engaged a Consultant to prepare a Bushfire Management Plan for all of its remote Campuses including the Siding Spring Observatory Campus. These plans are currently in draft format.

Leading up to, and evacuating from the fire

In the previous week leading up to the fire the ANU and other stakeholders on the Campus held several meetings to discuss evacuation procedures in the event of a fire at Siding Spring Observatory. One meeting was attended by Zone Manager from the NSW Rural Fire Service.

On the day of the fire which impacted the Siding Spring Observatory Campus hourly fire observations were being conducted from the lookout on Mt Woorut overlooking the fire in the National Park. For many hours the fire was not posing any threat to the Campus, when the wind changed within minutes the fire travelled more than 7km to the Campus.

During the evacuation of the Campus, ten residents who live on the hill were evacuated; several visiting Astronomers and Technical staff were also evacuated. The evacuation convoy was delayed leaving the Campus as they had to deal with members of the public coming up the Mountain to look at the fire. From all reports the convoy only just left the Campus with minutes to spare.

Damage to the site caused by the bushfire

The site sustained major damage to infrastructure and several buildings. The 19 bed accommodation building known as the “Lodge” was destroyed along with the nearby Directors Cottage and Campuses Maintenance Shed. Other buildings received minor damage to external walls and roofs.

The 11km of water pipe from Timor Dam as well as the 4 pumping stations sustained damaged. Two of the three onsite water tanks sustained damage to the rubber liners and needed to be replaced. Onsite sewer and electricity reticulation systems sustained damage.

Numerous trees were removed across the Campus after the fire as they posed a threat to infrastructure and personnel commuting around the site.

Most of the Campuses perimeter site fencing was destroyed.

The damage to the building and infrastructure at the Campus is likely to top $10,000,000

Recovery process

A team of Engineering & Technical Officers, Project Coordinators and Trade staff were sent from Canberra and arrived the day after the fire to assess the damage and start the recovery process.

A team of ANU Counsellors flew to the site to help assist staff and residents cope with the aftermath of the fire and to put in process a program of support which is still ongoing.

With assistance from ANU trade staff and local contractors the site was back to operational status within 4 weeks. A number of the temporary repairs have now been fully repaired or will be resolved as part of the greater Campus Master Plan project which is underway. The Visitors centre was reopened on 7 April 2013.

As part of the recovery process the ANU engaged a Consultant to facilitate a lessons learnt workshop where workshops.

Lessons Learnt Workshop

The workshop was held to provide stakeholders of the ANU's Siding Spring Observatory (SSO) site with a forum to discuss the lessons learnt from the fire and resulting evacuation of the SSO that occurred on and around January 13, 2013.

Over 30 stakeholders participated in the workshop, including representatives from the SSO site owners; the Australian National University (ANU), their tenants; ANU's Research School of Astronomy & Astrophysics (RSAA) and the Australian Astronomical Observatory (AAO), and external stakeholders; the Warrumbungle Shire Council, NSW Rural Fire Service (RFS) and the NSW National Parks and Wildlife Service (NPWS).

The workshop aimed to identify the lessons learnt and opportunities for improvement related to:

1. preparation of the SSO site: for both the fire season in general and for the January fires specifically
2. management of the site whilst under direct threat from the fire (including evacuation of the SSO)
3. recovery of the site once it was no longer under immediate threat from the fire.

The key findings from the workshop were:

- The current program of bush fire preparation needs to be formalised and structured to manage the areas of highest risk on site, including the access road.
- There needs to be better awareness of the role and structure of the SSO Emergency Control Organisation (ECO) at site, including how it is enacted during an emergency and the role and responsibilities of the SSO community.
- The evacuation decision-making process needs to be reviewed and formalised to provide structured guidance to those responsible for making the decision (see 0).
- The security of the SSO site needs to be reviewed, with particular attention paid to methods of controlling public access to the SSO (including the ANU campus and the access road) during an emergency.

There were a total of 19 recommendations that were agreed on, most have been completed and some are still underway.

Other Issues relevant to the site

The biggest risk to staff and visitors travelling to and from the SSO Campus is the condition of trees along Observatory Road which is managed by the Warrumbungle Shire Council. Since 2006 the ANU has identified to the Shire Council several areas of concern where trees have exposed roots and could fall in strong winds. After the fire several trees were removed, drains cleaned and guide posts installed but the risk to passing traffic still remains as very little work has been undertaken. The road still requires line marking.

Siding Spring Campus

19 bed Lodge used by Astronomers and Technical staff

Damage to small workshop and fire shed

Directors Cottage

Observatory Road – Warrumbungle Shire Road

Damage to water pumping station

Fire encroachment on the Campus Cottages

Fire hydrant damaged

NSW GOVERNMENT INQUIRY OBJECTIVES

1. The Bushfire Management Plan objectives for the affected area In 2004

2. The activities of National Parks and Wildlife Service (NPWS) officers in the National Park in the week preceding the fire

3. The significance of a small fire in a camping area within the National Park, and actions taken by NPWS before the declaration of the fire under section 44 of the *Rural Fires Act 1997*

4. Actions taken by NPWS following the ensuing conflagration and timing of the section 44 declaration

5. The extent of property damage within and adjacent to the fire

6. The details and effectiveness of NPWS restoration plans for the National Park and private infrastructure, including the timeliness of communication and assistance offered by NPWS to affected private property owners

7. The details and effectiveness of dispute resolution processes with respect to restitution of private property infrastructure damaged as a result of the fire

8. Any other related matter.

If you require any further information regarding this submission, please contact me directly.

Yours Sincerely

Wayne Ford
Associate Director—Facilities Planning