



Blue Mountains World Heritage Institute

Climate Change & Fire in the Greater Blue Mountains and Sydney Basin Region: An interdisciplinary research forum.

**April 12, 2005
Workshop report**

The workshop was organised by the BMWHI and attended by 30 people from a range of organisations concerned with the potential impacts of climate change on the ecosystems of the greater Blue Mountains and in particular with the complexity of fire management. The organisations represented included the Department of Environment & Conservation, Sydney Catchment Authority, Rural Fire Service, Blue Mountains City Council, University of Western Sydney, University of Sydney, Nature Conservation Council of NSW, World Wide Fund for Nature, and the Hawkesbury-Nepean Catchment Management Authority.

The purpose of the workshop was to bring together a wide range of stakeholders to share information about current research efforts relating to climate change and fire in the region, and to identify gaps in knowledge. Recommendations were then sought from the group regarding projects for the Institute to facilitate or implement.

Dr John Merson, Executive Director of BMWHI, convened the forum, and in his introduction highlighted that “fire is a very serious issue affecting the lives of everybody in the Blue Mountains, and climate change will only exacerbate this threat through escalated fire frequency and intensity due to the drying out of the environment”.

Dr Ross Bradstock (Principle Research Scientist with the Policy and Science Division, NSW Dept of Environment and Conservation) gave an overview of the potential impacts of climate change on ecosystems in the Blue Mountains & Sydney Basin region, and the risks associated with more frequent and intense bush fires.

Key issues were then discussed, relating to the enormous complexity of fire management across urban, rural and wilderness landscapes. It was highlighted that the implications of climate change are that the fire management effort will need to be doubled just to achieve the same result as currently. This of course has enormous implications for planning and resources. It was agreed that research should be directed to urgent management questions. How do we manage fire and why? The policy and management implications of research are of over-riding importance. What research can usefully inform management, and what management responses are possible? The vexed issue of how to integrate different

management objectives was a central theme of the workshop. What research can help? – research questions need to be jointly defined by managers, policy makers and scientists. What are the values we want to protect? Can we quantify risk for each variable? How do we quantify and integrate the different values ie ecological, economic and social? Research approaches are needed which integrate all of these aspects and perspectives. HOW the research is done is a key factor along with WHAT research to do. What heritage do people value (both natural and cultural)?

Each of the management agencies concerned with fire control has different mandates and priorities, ranging from protection of property and assets to protection of natural heritage and of Sydney's water supply.

Ted Williams from the Katoomba branch of the Rural Fire Service said that data is needed against which to base decisions ie how do we balance social against ecological imperatives for fire-fighting? What fire management is best for different areas?

Brian Spies, Science Manager for the Sydney Catchment Authority, identified two issues:

- What are the likely impacts of climate change?
- What variations in controlled burning practices are needed?

Urban myths - There are many myths to do with fire, many of these urban-based due to a lack of understanding of fire behaviour.

The workshop considered the impacts of fire and climate change on:

- Biodiversity conservation
- Ecosystem services and catchment values (impacts on the Sydney water supply quantity and quality; impacts on tourism; public health impacts eg diseases; impacts on air)
- Commercial and Urban Impacts (agri-industrial, property & tourism);
- Cultural and Community Assets (Aboriginal & European, aesthetic and landscape values).

Some other issues raised were:

- Lack of knowledge about ecological impacts of fire regimes.
- Indigenous knowledge and perspectives on fire needs much greater recognition than it has received to date.
- The need for more planning regulations and tighter development restrictions in high fire-risk areas; the use of insurance as a mechanism to drive good urban planning.
- Potential negative impact of climate change on tourism, due to increased fire risk and therefore closing of parks; the significant role of the media in reporting of fire incidences and influencing the perceptions and understanding of fire. Addressing mis-information in the local and national media.
- Lack of understanding about the social ecology of fire ie people's values, attitudes and perspectives

From the discussions, a number of research priorities were identified.