

BUSHFIRE IMPACTS ON WATER SUPPLY CATCHMENTS IN THE UPPER MURRAY-DARLING BASIN



Abstract:

Analysis of the long term impacts of Victoria's 1939 bushfires on Melbourne's water supply catchments in the 1970's revealed startling, long-term decreases in catchment yields as the burnt out mountain ash forests regenerated. It has been suggested that similar decreases in yield would occur in other native-forested water supply catchments in the Murray-Darling Basin. The January 2003 bushfires, which essentially burnt out all of Canberra's near-pristine Cotter River water supply catchments provided an opportunity to study the impact of severe bushfires on catchments predominantly containing dry sclerophyll forests. This talk will examine the impacts of the 2003 wildfire and a smaller fire in 1983 on water quality and on catchment yield in forests that are different from Victoria's mountain ash water supply catchments and will discuss reasons for the marked differences in responses. Analysis of results was complicated by the exceptionally dry period following the 2003 bushfires. Additionally, impacts of management decisions on water quality will also be highlighted.

Speaker Bio:

Ian White presently holds the position of **Professor of Water Resources and Associate Director Research** at the Fenner School of Environment and Society, Australian National University, Canberra. Ian's major research area is water resources with emphasis on surface-groundwater interactions, and the mitigation of global change and land use impacts of catchment yield and water quality. His current research includes water resource management, planning and policy development with emphasis on connected surface-groundwater systems, groundwater assessment, the prediction and measurement of the impacts of climate and land use change on the availability and quality of groundwater, environmental flows. Ian's expertise lies in hydrology, rainfall infiltration, modelling saturated/unsaturated flow, geochemistry, acidification of coastal and inland streams, salinisation of streams, impacts of water quality on ecology, sustainability of water extraction from groundwater systems, safeguarding urban water supplies, hydrology and water management in small islands and coastal areas, vulnerability and adaptation, policy development and planning.

Date: Tuesday July 27th 2010

Time: 5:30 pm for 6:00pm

Drinks & nibbles from 5:30pm

Venue: Engineers Australia Auditorium, Ground Floor
8 Thomas Street, Chatswood NSW 2067

Enquiries: Scott Button at scott@lyallandassociates.com.au

Attendance can be credited towards IEAust Continuing Professional Development requirements