

I am a Geographer ...

Sam Hillman

Project Officer – Application Development Bushfire Monitoring, Evaluation and Research, DEWLP



From working on the side of volcanoes in Patagonia, to flying drones across the desert landscapes of the Mallee, to being a part of a team of people executing planned burns in the Otways – Geography, and in particular, the applications in spatial information, have taken me to some wonderfully diverse parts of the world.

Growing up, I really enjoyed hiking, bike riding and just being outdoors. I studied Geography during VCE and could see that this was the subject that would lead me to where I wanted to be. It is Geography that enables you to make some sense of the world around us. During my undergraduate degree at The University of Melbourne, I enjoyed being able to study physical Geography – fantastic field trips to New Zealand provided the best lecture theatre in the world to study the impact of climate change and the retreat of glaciers. From glaciers to fires, I then completed a Masters in Spatial Information at RMIT University which focussed on new ways of measuring fuel hazard for fire behaviour.

Following the conclusion of the Masters program, I gained a position in the Science Graduate Program with the Department of Environment, Land, Water and Planning (DELWP). From district to state level operations, I have relished the opportunity to participate in field work activities from koala monitoring in Cape Otway, fuel hazard monitoring around the state, planned burning and fire response activities

and presenting at conferences in the USA. My current position at the department is Project Officer for Application Development in Bushfire Monitoring and Evaluation – developing mobile applications to improve the safety of fire fighters and producing mapping products for the state. This position allows me to combine an interest in Geography and technology, and hopefully have a positive impact for DELWP firefighters and the community.

Inspired by the need to learn more about fire behaviour, I have also commenced a PhD at RMIT University. Its focus is to investigate new techniques to measure fuel hazard. The project will explore the use of image-based point clouds, terrestrial laser scanners and airborne platforms for describing cover, height and structure characteristics of below canopy vegetation. Quantifying and characterising vegetation as fuel is essential for informing a wide range of fire management activities, such as assessing bushfire risk, planning fuel treatments, and managing smoke emissions. The tools are being created with industry input to enable the best possible user-friendly outcome.

By studying Geography, a whole world (pun intended) of opportunities has indeed become possible.