

We can't predict earthquakes but we can prepare for them

Alice Lake-Hammond // AF8 Communication Lead

Infrastructure Research Day – Thursday 17th October

Understanding Exposure of Disaster Risk to Transient Populations

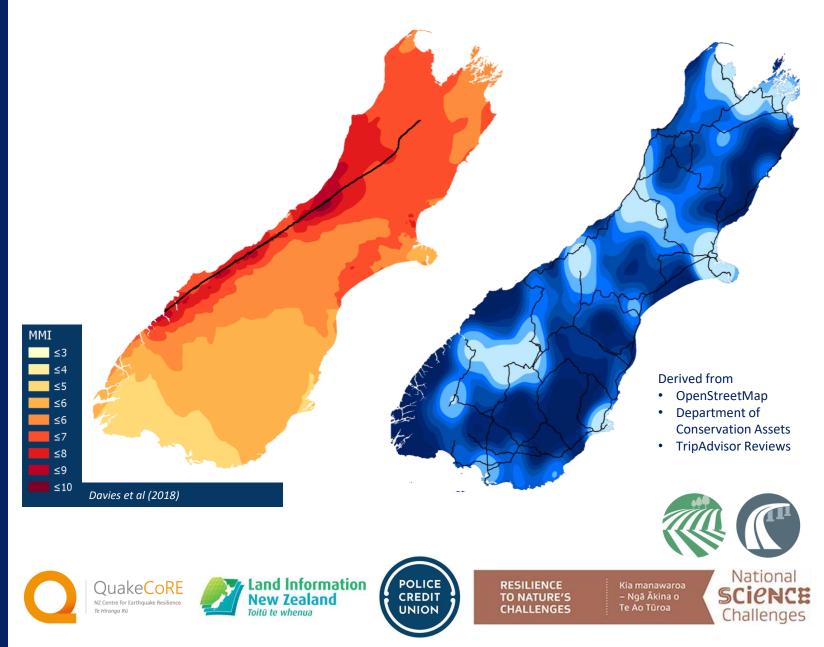
Mat Darling PhD Student, University of Canterbury

Supervisors: Ass. Prof. Thomas Wilson, Dr. Caroline Orchiston, Dr. Ben Adams, Prof. Brendon Bradley

- → how existing data are used by decision makers,
- → and what gaps exist in data availability;
- → to better inform risk modelling with respect to transient populations.

AF8 S2N Scenario

Points of Interest



Modelling post-disaster habitability, displacement, and population needs

Finn Scheele PhD Student, University of Canterbury

Supervisors: Ass. Prof. Thomas Wilson, Dr. Julia Becker, Nick Horspool

→ the potential of modelling for assessing habitability, human displacement and the needs of populations using existing data.

- \rightarrow Buildings
- \rightarrow Populations
- \rightarrow Demographics



Tourism preparedness and resilience for a future Alpine Fault earthquake: a quantitative analysis

Moriah Osborne Masters Student, University of Otago

Supervisor: Dr. Caroline Orchiston

- → This research builds on a quantitative survey conducted ten years ago
- → Assessing changes in preparedness and resilience amongst tourism operators in the Southern Alps.

+1 PhD 뻆

In the final stages of recruiting a PhD student through RNC Rural

Tourism and emergency management communication and connections to improve response capacity and capability.

Due to start early 2020.



Evaluating AF8

Collecting feedback on the AF8 project to be used to inform future <u>AF8 research needs</u> and our outreach and <u>engagement initiatives</u>.

After attending the Tourism Forum:

Nearly all, >90% indicated they were probably or extremely likely to take steps to **prepare for an AF8** event: personally, in their community and/or at work.

ALPINE FAULT EARTHQUAKES



WE CAN'T PREDICT EARTHQUAKES BUT SCIENCE HELPS US UNDERSTAND HOW FAULTS BEHAVE.

In 2012 a geological study by GNS Science found evidence of 27 earthquakes over the past 8000 years, at the southern end of the Alpine Fault. Scientists used a range of investigation techniques, including radiocarbon dating of seeds and leaves contained in swampy sediments, to determine the ages of the ruptures.

This gives us one of the longest continuous earthquake records of any on-land plate boundary fault in the world Knowing the ages of so many major earthquakes enables better understanding of the fault's behaviour.







SAFER

SOUTH ISLAND / TE WAIPONAMU ALPINE FAULT EARTHQUAKE RESPONSE

FORUM

23 October 2019 | Nelson

