

# Franz Josef Township Natural Hazards Options Assessment and CBA

## Date

February - September 2017

## Total cost of project

NZD 200,000

## Client

West Coast Regional Council

## Project overview

Tonkin + Taylor (T+T), together with EY, was commissioned to identify options to mitigate natural hazard risks in Franz Josef Township including flooding from the Waiho River and an Alpine Fault rupture (including the potential for an earthquake-triggered rock avalanche). We worked with stakeholders to develop a long list of options to avoid, manage, transfer, and ultimately live with the risks identified. In addition to traditional economic analysis, the options were assessed with a focus on impact on the environmental, social and cultural value at stake. We developed three programmes which represent alternative approaches to managing, and living with, natural hazard risks. The three scenarios considered were: avoiding the risks (moving the township), living with nature (releasing the river to the south), and defending against nature (building stop banks and managing gravel accumulation). This work is intended to provide robust evidence that ensures the 'best way' to achieve a safer, more resilient and prosperous future for the township.

## Services provided

Production of reports; Consultation with stakeholders and communities; Construction Cost estimates; Hazard assessment; Requirements elicitation

analysis, and management; Risk identification and analysis; Strategic Planning; Facilitation services; Benefits management related services; Option development as part of indicative business case; Cost estimation; Business Case Development/Investment management; Community Engagement advice and support; Asset risk assessments and resilience strategies; Economic impact assessments; Guidance on building resilience across all assets; Lifecycle decision methods; and multi crisis analysis.

## Sectors

- Advisory
- Natural hazards
- Emergency management

## Performance

Successfully delivered:

- Stakeholder engagement
- Development of desired future state, investment objectives and critical success factors
- Hazard risk assessment
- Options identification and MCA Programme development
- Cost/benefit assessment, including non-financial aspects

## Key personnel

Senior Business Analysts

- Nick Rogers
- Marje Russ
- Nathan Bittle
- Adam Naiman

**Exceptional thinking together**

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