

Curriculum Vitae

Fraser Wilson — Senior Engineering Geologist

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Fraser is an Otago trained geologist with 14 years' experience working as an engineering geologist/project manager throughout New Zealand, predominantly in Otago and Southland. Fraser has worked on large-scale infrastructure projects throughout New Zealand and internationally in the Pacific and Africa including dams, ports, wind farms, airport and tunnel developments. He has a broad experience in construction related geotechnical investigation and assessment including geological ground modelling, liquefaction assessment, groundwater modelling and geological hazard assessment with extensive knowledge of the geological conditions in Otago and Southland. Fraser is based in our Queenstown Office.

Qualifications BSc, Geography & Geology, Otago University 2003

Professional Affiliations Member Geological Society of New Zealand

Member NZ Geotechnical Society

Employment Record

Geosolve Ltd

(T&T Otago rebranded) 2013 to Current

Tonkin & Taylor

2004-2013

Senior Engineering Geologist

 Management, engineering geology, geotechnical investigations and reporting, construction and earthworks monitoring, project management.

Consulting Engineering Geologist

 Geotechnical investigations, reporting and design, project management and client liaison, construction and earthworks management.

Geotechnical Activities

Engineering Geologist

- Geotechnical investigations in New Zealand, predominantly in Otago and Southland.
- Infrastructure projects in New Zealand, Micronesia and Africa.
- Construction geotechnical and civil site inspections and monitoring commercial and residential developments predominantly in Otago and Southland.
- Geotechnical hazard and development feasibility investigations.
- Rockfall and landslide mapping and investigations.
- Earthquake Commission land and building damage assessment.
- Permeability and wastewater/stormwater assessment.
- Groundwater monitoring and modelling.
- Pavement testing and design.
- · Liquefaction assessment and modelling.
- Environmental and contaminated land investigations and reporting.











- Retaining and foundation design assessment.
- Geotechnical design project management.

Project Description

Site Investigations

Management and execution of geotechnical investigations utilising a variety of techniques:

Investigations and

• Natural hazard risk assessment including alluvial fan, liquefaction, fault line and rockfall hazard at Bob's Cove Development, Bob's Cove, Queenstown.

Assessments for

Drilling, CPT's, aquifer testing, modelling for the Frankton Marina Development,
Queenstown.

Development

- Five level underground carpark development Man Street Car Parking Building, Queenstown.
- Apartment complex in artesian conditions, Frankton Marina, Wanaka.
- Geotechnical investigation for the Kawarau Falls Development, Queenstown.
- Geotechnical investigation for the Cardrona Station Development, Cardrona.
- Various building, subdivision and lake developments at Jacks Point Queenstown.
- Geotechnical investigations for various subdivision and building developments, Wanaka.
- Engineering geological mapping of large historic landslide feature, including stereo-pair analysis for the development of the Ziptrek Ecotours.
- 2007/2008 refurbishment of Coronet Peak, including new buildings, access roads and reservoirs.
- Ground settlement modelling, assessment, design and monitoring for the Bunnings Warehouse development, Dunedin.
- Earthquake damage mapping and geotechnical hazard assessment for the Christchurch Earthquake Recovery.
- Geotechnical investigations and modelling of the Tahunanui Landslide, Nelson.
- Liquefaction and lateral spreading analyses for the Liquigas Port Development, Dunedin.
- Landslide, retaining wall, liquefaction investigations and modelling throughout the Nelson region.
- Geotechnical investigation of the Mainfreight Terminal Development, Invercargill.
- Geotechnical investigation and pavement design for the Invercargill Stadium Rebuild.
- Geotechnical investigation for the Allied Concrete Plant Development, Christchurch.
- Geotechnical reporting for the ICC office building, Don Street, Invercargill.
- Geotechnical investigation and construction monitoring, Building 8 5 Mile.

Pavements

• Falling Weight Deflectometer (FWD) testing carrying out network and project level pavement testing surveys. FWD calibration and validation. Equipment maintenance and calibration. Pavement analysis and design.

Airport projects

Management of geotechnical investigations and reporting for the following airports:

- Queenstown Airport Terminal and Runway.
- Pohnpei Airport Upgrade, Micronesia, Asia.
- Invercargill Airport Redevelopment, Invercargill.

Infrastructure Projects

Management of geotechnical investigations and reporting for the following infrastructure developments:

- Nacala Port Development. Nacala, Mozambique, Africa.
- Waterview Tunnel Project, Auckland.
- Luggate Dam, Clutha River, Wanaka.
- Slopedown Windfarm, Southland.
- Waipapa Dam, Waikato River, Waikato.
- Solid Energy Briquetting Plant, Mataura, Southland.
- Arnold Dam, Greymouth, West Coast.

