

RESUMÉ



Education

Certified Engineer, NZTC, 1987

Professional Affiliations

Australasian Land & Groundwater Association (ALGA) - Member

Technical Skills

Contaminated Land Assessment and Remediation
Remedial Strategy Development
Remedial System Design,
Installation and Operation
Sediment remediation

Managerial Skills

Director, Team Leadership and Project Management experience has resulted in development of communication, strategy development, negotiation, and problem solving skills

Work History

Golder Associates (NZ) Limited, Tauranga

Principal, Contaminated Sites Team Leader (2007 to 2014)

Kingett Mitchell Limited, Tauranga

Senior Contaminated Sites Consultant (2005 to 2007)

SEM New Zealand Limited, Tauranga and Dunedin

Senior Consultant and Managing Director (1997 to 2005)

Groundwater Technology Pty Limited, Australia

Contaminated Land Consultant (1990 to 1997)

BRENDON LOVE

HAIL Environmental Limited

Contaminated Site Specialist, Director

Over 26 years of experience in contaminated land consulting in both New Zealand and Australia. Currently responsible for project management, technical advice, and internal peer review associated with contaminated land assessment and remediation projects. Provides advice to a wide variety of clients including, regulatory authorities, land developers, and industrial clients throughout New Zealand.

Relevant Experience

Contaminated Land Investigation Transmission Gully:

Technical Expert. Peer review of scoping documents and Phase I and II investigation reports for Transmission Gully. Preparation of Completeness Assessments of technical reports, AEE and consent conditions for contaminated land pre and post lodgement with EPA. For Regulatory Authority Technical Advisory Group, 2010 to 2011.

Soil Quality Study for Regional Development Planning:

Project manager. Soil investigation of residual agrichemicals at 128 horticultural sites within the Bay of Plenty region. The investigation involved the training and auditing of field data collection staff, laboratory analysis, and comparison to soil quality criteria. The report was used by territorial authorities to determine the need for planning changes to ensure human health protection following the redevelopment of horticultural land for residential land use. For Bay of Plenty Regional Council, 2005.

Prioritisation of Contaminated Land Investigations:

Project manager/technical expert. Environmental sensitivity ranking of over forty timber treatment sites in South Island, New Zealand. Project involved desk top research and numerical risk ranking of sites based on site location proximity to surrounding environmental and physical parameters. The results of the study determined timing and workscopes for further intrusive investigations. For Otago Regional Council, 2003 to 2008.

Greenfield Investigation for Residential Development:

Project Manager. Remediation of a sheep dip site which operated for over 100 years prior to development of an exclusive lifestyle block subdivision. Soil and groundwater investigations were completed which identified significant organochloride pesticide and heavy metal contamination. Following investigations remedial planning, consent application preparation, soil disposal approvals, and consultation prior to completion of physical works and site validation testing. For Confidential Client, 2006.

Desk-top Risk Ranking: Project Manager and Lead Researcher. Desktop site history and intrusive investigations at over twenty former and active timber processing plants. Investigations included determining the impact of tanalising (CCA) and antisapstain (NaPCP and Boron) treatment chemical releases into soil, sediment, and groundwater. For Confidential Client, 2011.

Relevant Experience – Remediation

Sediment Remediation: Project Manager. Investigation and remediation management of 40,000 cubic metres of dioxin contaminated sediment associated with a former timber treatment site. Project management role involved stakeholder engagement, risk communication, identification and management of project risks, evaluation of alternative remediation methods, pilot studies, consent applications, and appeal resolution. Project involved considerable community and stakeholder group engagement. Project was funded 50/50 by Bay of Plenty Regional Council and Ministry for the Environment and preparation and delivery of Council and Ministry reports was completed on a regular basis over a two-year preparation and execution period. 2014 - ongoing.

Sediment Remediation: Project Manager. Investigation and remediation of silver impacted sediments associated with a release into a stream. Investigations revealed over 3 kilometres of impacted sediments. Particle size distribution and contaminant profiling were used to identify low impact remediation methods which focused on contaminant mass removal. Remediation goals were developed based on published international research. Consent applications and remediation contracts were prepared. Contractor management and validation sampling, analysis and reporting were undertaken. Stream remediation was successful and consent was surrendered with no on-going residual liability. For Confidential client, 2007 - 2009.

Fuel Storage Site Remediation Projects: Field Engineer. Completed pilot studies and remediation system design and build projects on over 40 commercial and retail fuel storage sites throughout Australia. Designs included the use of multiphase treatment techniques to contain and treat soil and groundwater impacted by hydrocarbon releases. Treatment techniques included soil vapour extraction, airsparging, groundwater extraction and treatment using airstripping or activated carbon, and project recovery.

Timber Treatment Site Investigation and Remediation: Project Manager. Research, investigation and trialling of a variety of complex remediation options for treatment of pentachlorophenol and boron contaminated groundwater at an operating timber processing facility. Investigations on soil, groundwater and sediments were augmented with groundwater modelling to assist in characterisation contaminant plume migration. In-situ and laboratory trials were conducted using a combination of emerging and proven chemical oxidation technologies prior to the selection of a full scale remediation system. For Blue Mountain Lumber, 2000 - 2009.

Bulk Fuel Storage Remediation: Field Engineer. Remediation design of a bulk fuel storage facility in North Queensland. Project involved excavation of over 2,500 cubic metres of hydrocarbon impacted soils for on-site treatment. Remediation system included construction of an aboveground bioremediation treatment cell with fully automated leachate recycling, nutrient addition, and extraction system de-watering. Remediation of the site was completed in less than eight months and 30% under budget. For Confidential Client, 1996.

Remediation of Heavy Metal Contamination: Project Manager. Effects associated with heavy metal impact were assessed from both a marine ecology and human health aspect. Site remediation options were evaluated and bench scale trials were completed to determine the cost and feasibility of landfill disposal, stabilisation beneath highways, and encapsulation on site. Bench scale trials and laboratory testing confirmed that material could meet required California Bearing Ratios (CBR) for highways. Laboratory chemical testing confirmed modelled leachate concentrations to ascertain freshwater and marine ecology effects associated with discharges from the stabilised soil. For Bay of Plenty Regional Council, 2005 - 2008.

Rail Yard Remediation: Project Manager. Remediation of hydrocarbon impacted soils beneath an operating rail yard using insitu bioremediation. Hydrocarbons reduced below acceptable levels in six months without significant disturbance of land. For NZ Rail, 2003.

Timber Treatment Site Remediation: Project manager. Remediation of a former timber treatment site to allow development of a 480 lot residential subdivision. Project involved investigations, remedial planning, consent application preparation, soil disposal approvals, consultation prior to completion of physical works, and site validation testing. Remediation included soil screening to remove gravels which resulted in reduction in mass disposal to landfill and around \$300K in soil disposal cost savings. Client, Willowridge Developments, 2006 to 2008.

Relevant Experience - Environmental Due Diligence

Animal Feed Distribution: Project manager, lead auditor. Project included review of all property files, historical aerial photography, resource consents, regional and district plans and manufacturing information in relation to several animal feed processing and distribution sites. Site inspections were also undertaken during the project to augment desk top research. Report identified key liabilities and risks associated with acquisition of business. Non-compliance with existing regulatory plan rules and consideration of proposed rule changes were also reviewed in order to identify any constraints associated with on-going operation of the business.

Cellulose Manufacturing Plant, India: Project Manager and lead auditor. Project involved review of local regulatory requirements in relation to operation of manufacturing plant in a heavily contaminated industrial estate in southern India. The entire due diligence project team comprising legal, finance, manufacturing and business consultants was mobilised to location near the site where detailed research was undertaken. Desk top research in relation to former land use activities at the site and surrounding industrial sites was completed, along with a review of existing permits and leases in relation to the site operation. This information was used to determine if any residual liability would be passed onto our client or if any identified contamination had the potential to impact on the on-going operation of the business. A wide range of issues were identified such as stormwater discharge, wastewater treatment and disposal, fire control, and water supply consents.

National Commercial Portfolio: Project Manager and lead auditor for acquisitions of business and associated assets (>50) of a large hire company. Lead a team of over ten auditors focusing on historical impacts, hazardous substance storage, planning and discharge permits and consents. Initial phase of the project involved review of all desk top research in relation to the sites and development of a risk ranking system to identify high risk sites for further investigation. High risk sites were then physically inspected and site operations managers interviewed to determine if any sites should be excluded from the portfolio or what CAPEX may be required to bring sites into compliance with current legislation.

Heavy Equipment Maintenance: Project Manager and lead auditor on a pre-purchase audit associated with acquisition of a heavy equipment maintenance company with sites throughout North Island. Project involved review of property files, historical investigation reports, regulatory agency databases, discharge consents, historical aerial photography and all available desk top information in order to determine if any residual liability would be passed onto the purchasers or what CAPEX was required to bring the site operation into compliance with local regulations.

Fumigation Operation: Project Manager and lead auditor related to environmental due diligence associated with acquisition of a fumigation business in New Zealand. Audits involved a review of all desk top research via secure data room, interviews with site operations staff and review of relevant local and national regulatory agency plans and rules to determine if site operations complied with legislation.

Relevant Evidence:

Residential Redevelopment: Preparation and presentation of evidence at consent hearing for demolition and redevelopment of multi-lot residential development. Provided expert evidence on assessment and management of asbestos containing materials during redevelopment. For Housing New Zealand Corporation, 2009.

Holiday Park development: Preparation of evidence in relation to a holiday park development located on land formerly acquired by the Department of Defence for use as a rifle range. Evidence prepared was in relation to the former rifle range and potential impacts to soil quality. Confidential client, 2013

Relevant Publications

Love, B. Environmental Management on Scrap Metal Recycling Sites, SMRA AGM, July 2011

Love, B. Cleaning up the Mess, Hazardous Substances Conference, 2007

Love, B, Caruso, N. Use of X-ray Fluorescence (XRF) spectrometer for remediation of a chromium, copper, arsenic contaminated site, Waste Management Institute New Zealand Conference, 2007

Love, B. Background levels of Agrichemical Residues in Bay of Plenty Soils, 2005.