DAVID F. POLSTER
Plant Ecologist

EDUCATION / AFFILIATIONS

B.Sc., (Honours) Biology, University of Victoria, 1975
M.Sc., Plant Ecology, University of Victoria, 1977
R.P.Bio., Registered Professional Biologist (#148)
Board Member, Association of Professional Biologists of BC
Past-President, Canadian Land Reclamation Association
Treasurer, Society for Ecological Restoration, B.C. Chapter
Board Member, Garry Oak Ecosystems Recovery Team
Member, Cowichan Valley Naturalists' Society
Alternate Mining Representative, Invasive Plants Council of B.C. Board

EXPERIENCE

Mr. Polster has considerable experience in planning and conducting plant ecological investigations for park developments, hydroelectric developments and mine impact assessments. He has been responsible for planning and implementing reclamation programs for major mines, linear developments, forest sites, gravel pits and industrial developments. His broad knowledge of environmental issues has contributed to the successful completion of the Best Management Practices for Urban and Rural Land Development (2006 edition).

Mr. Polster has been instrumental in the development of innovative revegetation programs for major industrial developments. He has pioneered the use of soil bioengineering solutions for the treatment of steep and/or unstable slopes in Western Canada. Mr. Polster has been responsible for development of innovative vegetation management and invasive species treatment programs for the transportation sector and in ecological restoration. Mr. Polster is qualified to provide professional revegetation and erosion control prescriptions, and road deactivation prescriptions for forest lands.

1985 to date **POLSTER ENVIRONMENTAL SERVICES LTD.**, Duncan
Plant Ecologist

Responsible for planning and conducting reclamation programs for major industrial developments and mines in Western Canada. Reclamation plans were developed as part of environmental impact mitigation strategies for BHP Diamonds Inc. NWT Diamonds mine, CP Rail's massive Rogers Pass Project, Gulf Canada's Mount Klappan Coal Mine, British Columbia Hydro and Power Authority, Parks Canada, University of British Columbia, British Columbia Telephone Company's Lightguide Transmission System, Equinox Resources and Sumac Mines. Reclamation assessments, field trials and annual report production have been conducted at the Cassiar Asbestos Mine, Mount Klappan Coal Mine, BHP Island Copper Mine and as part of CP Rail's railway upgrading program. Mr. Polster served as environmental supervisor for the Roger's Pass Project where he was responsible for all aspects of environmental protection, impact mitigation and liaison with Parks Canada. Mr. Polster has been responsible for the direction and preparation of permit applications for gravel pits, quarries and industrial developments in B.C., Alberta, Ontario and Manitoba. Vegetation assessments have been carried out for Cominco Ltd., Fording Coal Ltd., and the Wilderness Advisory Committee. Mr. Polster has served as environmental coordinator for the $1.3 billion Vancouver Island Highway Project.

Mr. Polster has been responsible for the development of innovative bioengineering treatments for a variety of difficult sites. Mr. Polster has applied his expertise in vegetation ecology to the development of reclamation systems that utilize natural successional processes in the reclamation of difficult sites.

He has designed and supervised installation of bioengineering systems for the revegetation of the Point Grey cliffs at the University of B.C., the Capilano Reservoir slide, TimberWest slides, Pacific Forest Products slides, Campbell Group slides, Interfor Clayoquot Sound slides, and slides in the San Juan drainage as well as a variety of railroad and highway sites. Mr. Polster has worked with geotechnical engineers to provide cost-effective solutions to slope stability problems.

David Polster has developed and implemented ecologically based management systems for control of unwanted vegetation on railroad tracks throughout North America for CP Rail. He has been instrumental in the design of invasive plant management programs for ecologically sensitive areas and areas where listed species at risk occur for B.C. Parks. He has taught courses in invasive plant management to staff at the City of Esquimalt, the City of Nanaimo. University of Northern British Columbia and the Greater Vancouver Regional District.

1981 to 1985 **NORECOL ENVIRONMENTAL CONSULTANTS**, Vancouver
Plant Ecologist

Responsible for technical co-ordination and planning of reclamation programs for major coal and metal mine developments and other industrial and municipal developments. Responsibilities included site mapping, vegetation/wildlife habitat studies, and reclamation planning for Fording Coal's Eagle Mountain Project, Sage Creek Coal's proposed mine, Quinsam Coal's proposed mine, mine extensions for Westar, and Crows Nest Resources, and development of a reclamation program for the treatment of acid generating mine wastes for Equity Silver Mines' operation near Smithers. Mr. Polster represented industrial clients at numerous public hearings.

1977 to 1981 **TECHMAN ENGINEERING LTD**., Calgary
Plant Ecologist

Responsible for reclamation activities related to industrial project development in B.C., Alberta and Ontario, including reclamation planning, test plot design, establishment and assessments for Baymag Mines Ltd., Elco Mining Ltd., Gregg River Resources Ltd., Sukunka Coal Mines, Manalta Coal Ltd., Onakawana Developments Ltd., Luscar Ltd. and Alberta Power Ltd. Mr. Polster was responsible for preparing the technical aspects of a Manual of Species Suitability for Reclamation in Alberta for Alberta Environment. Plant ecological analysis, community mapping and species identification were conducted for a range of park, mine and industrial developments, including B.C. Hydro, Elk Island National Park, Elco Mining and Gregg River Resources.

1972 to 1977 **UNIVERSITY OF VICTORIA**, Victoria
Student

As a graduate student from 1975 to 1977, Mr. Polster completed a thesis entitled "Plant Communities of the Alpine and Meadow Areas of Southeastern British Columbia". During his undergraduate years, Mr. Polster worked as a summer student for the Royal B. C. Provincial Museum on botanical collections along the Stewart-Cassiar and Alaska Highways, in the Kootenays and completed an undergraduate thesis on talus slope vegetation on the Liard Plateau. He collected and dissected small mammals for a study of trichinosis in wildlife for the West Kootenay Health Unit, and was involved in a feasibility study for alpine park planning in the Earl Grey Pass area of B.C.

Environmental Studies, Reclamation / Restoration and Soil Bioengineering Experience
Polster Environmental Services Ltd.

Dates Client Project

1977 - 1979 Elco Mining Ltd.
Designed reclamation program for proposed 5 million t/yr coal mine in Elk Valley, SE Coal Block and developed an award winning reclamation program for 40 ha of exploration, including bioengineering stabilization of Elk River banks at an exploration road crossing.

1978 Elk Island National Park Vegetation Study
Sampled, classified and mapped the vegetation of Elk Island National Park near Edmonton.

1978 Manalta Coal Ltd.
Conducted reclamation trials at the proposed Onakawana lignite mine near James Bay in northern Ontario. A reclamation plan was prepared that recommended the use of native peat materials as a soil amendment for vegetation growth on the mine spoils.

1978-1979 B.C. Hydro Liard and Stikine and Iskut Projects
Sampled, classified and mapped the vegetation of the Liard, Stikine and Iskut River basins as part of an impact assessment being prepared by B.C. Hydro for proposed hydroelectric schemes involving these rivers and their tributaries. The project involved mapping over 3 percent of the total land area of British Columbia.

1979 - 1980 Alberta RRTAC
Technical author, Manual of Plant Species Suitability for Reclamation in Alberta.

1979 Gregg River Resources
Conducted field work and prepared vegetation sections of impact assessment as well as a detailed reclamation plan for proposed open pit coal mine.

1979 - 1980 BP Exploration Canada Limited
Establishment and evaluation of reclamation trials including cuttings tests at the Sukunka Coal property, NE Coal Block.

1980 Fording Eagle Mountain Studies
Assessed the vegetation / wildlife interactions on Eagle Mountain in preparation for a major expansion of the Fording Coal Mine.

1982 Equity Silver Mines Ltd.
Preparation of reclamation plan to deal with acid rock drainage and restoration of site productivity. Key elements included treatment of soils with high metals contents and isolation of acid generating wastes.

1983 Quinsam Coal Limited
Preparation of detailed reclamation plan for open pit coal mine on Vancouver Island near Campbell River. Detailed test plots were established to support the contention that the mine could be reclaimed to provide productive forest growth. Inter-planting forest trees with legumes was used to enhance growth of the trees.

1982 - 1989 CP Rail, Roger's Pass Project

Development of reclamation plans and supervision of reclamation work for $500 million tunnelling project through Glacier National Park. Extensive use of wattle fences, live pole drains and other bioengineering techniques helped to reduce project costs and mitigate project disturbances.

1982 - 1985 CP Rail, Lake Louis Grade Revision

Designed reclamation plans and supervised reclamation work for double tracking and grade reduction project from Lake Louise to Stephens (Kicking Horse Pass). Live pole drains and cuttings were used to stabilize saturated silts.

1984 - 1994 Gulf Canada Resources Limited

Design and supervision of award winning reclamation programs for proposed Mount Klappan anthracite mine near Dease Lake, including the use of wattle fences for stabilization and revegetation of angle of repose waste rock dump slopes.

1984 Marathon Reality

Development of an award winning reclamation plan for Reflection Lake gravel pit, Golden, B.C.

1985 Brinco Mining Limited, Cassiar Division

Development of reclamation plans for tailings pile including use of bioengineering for stabilization of steep slopes.

1985 - 1994 CP Rail, Ballast Quarry/Pit Reclamation Plans

Preparation of reclamation plans for ballast quarries at Hawk Lake, Ont.; Dyment, Ont.; Sudbury, Ont.; Walachin, B.C.; and Swansea, B.C. and ballast pits at various locations throughout the prairies.

1986 - 1988 CP Rail, Harrowby Hill Project

Design and supervision of reclamation program for major change in alignment to move off unstable shales, Assiniboine River valley near Russell Manitoba. Bioengineering was used to stabilize weeping slopes and to armour drainage ditches.

1987 - 1989 University of British Columbia

Development and supervision of bioengineering systems to stabilize Point Grey cliffs. Over 4,500 linear meters of wattle fences and other bioengineering structures (live pole drains) were installed.

1988 CP Rail, Red Deer Track Relocation

Preparation of reclamation plans for track relocation project, including wattle fences for stabilization of steep fill slope above a creek.

1988 BC Tel Fibre Optics Line, Jasper to Vancouver

Design and supervise reclamation program for major fibre optics line. Bioengineering work was used to stabilize sandy slopes at Jackman (near Valemont) and a wet cut slope in Mount Robson Park.

1988 – 1994 CP Rail System, Development of Vegetation Management Systems
Developed system-wide vegetation management strategy and procedures for railroad vegetation management, including replacement of weedy vegetation with suitable vegetation.

1989 B.C. Hydro (Klohn-Crippen)
Design of special reclamation techniques (wattle fences, live pole drains and special seeding) for shale cut slope at Site "C" on the Peace River.

1989 CP Rail, Oldman River Track Relocation
Design of reclamation program, including bioengineering for track relocation project associated with Oldman River Dam construction.

1989 - 1990 Private Residences, Victoria
Bioengineering work was conducted at four private residences in the Victoria area to stabilize unstable slopes.

1990 - 1991 Parks Canada
Design of bioengineering systems and supervision of installation for difficult sites on Trans Canada Highway and Mount Revelstoke road in Glacier and Mount Revelstoke National Parks.

1990 - 1992 B.C. Hydro (Golder Associates Ltd.)
Design of bioengineering system for control of sedimentation from marine clay slope on Alouette Spillway Project, supervision of installation and post-construction monitoring.

1990 - 1995 B.C. Hydro, Balfour Borrow Pit
Development of restoration plans and supervision of reclamation work on a till scarp in the Balfour Borrow Pit, Hugh Keenlyside Dam, Castlegar. Work included installation of live pole drains and live gully blocks for stabilization.

1990 - 1991 Pacific Coast Energy
Design and supervision of reclamation work, including bioengineering (live pole drains, wattle fences, live bank protection and live silt fences) on watercourse crossings for Vancouver Island section of the Vancouver Island Gas Pipeline.

1994 – 1995 Whitehorse Copper Mine
Design of revegetation plan for large (125 ha) tailings pond. Supervised implementation of reclamation work. Conducted assessments of growth and prepared reports.

1995 Greater Victoria Water District
Design of reclamation concepts for Sooke Reservoir expansion including systems for shoreline protection.

1995 NWT Diamonds Ltd.
Design of reclamation, decommissioning and closure plan for Canada's first major diamond mine. Innovations included the "donut" waste dump where the outside could be built and reclaimed in the early years of mining thus avoiding impacts on caribou herds that pass the mine area annually.

1995 Oyama Gravel Pit (Thurber Engineering Ltd.)
Preparation of a reclamation plan for proposed gravel pit in Oyama, B.C.

1995 - 1996 Greater Vancouver Regional District
Design and supervision of bioengineering projects to stabilize landslides in the Capilano Watershed. Work involved over 1,000 linear meters of wattle fences and live pole drains.

1995 - 1996 TimberWest Forest Limited
Design and supervision of reclamation programs for landslides and unstable sites in Beaver Cove, Nanaimo Lakes, Johnstone Strait, Honeymoon Bay and Rosander Block. A total of over 1,000 linear meters of wattle fences and live pole drains were installed.

1995 - 1996 International Forest Products Limited
Development of deactivation prescriptions for 27 km of forest roads in Clayoquot Sound (Shark Creek) including bioengineering prescriptions for 11 landslides. Design of bioengineering systems for 95 landslides and torrented gullies in the Lost Shoe, Thunderous, Muriel Ridge, Catface and Little Toquort areas of Clayoquot Sound. Supervised installation of bioengineering systems and trained workers (IWA members).

1995 - 1996 San Juan Watershed Restoration Project (Iverson Forest Management)
Design and supervision of restoration works for Hemmingsen, Mosquito, Modeste and mainstem San Juan areas. Work to date has included supervision of a native crew and installation of 1,317 modified brush layers (2,600 linear meters of bioengineering).

1995 - 1996 Pacific Forest Products Limited
Design and supervision of bioengineering installation for treatment of landslides on private lands, Cowichan Woodlands. A total of 185 linear meters of wattle fences and live pole drains were installed.

1995 - 1997 The Campbell Group (John Hancock Insurance)
Design and supervision of bioengineering installation for treatment of landslides and slumps on private lands in the Gordon River and Cowichan Lake area. A total of 367 linear meters of wattle fences and live pole drains were installed.

1995 - 2008 Island Copper Mine
Preparation of revegetation strategy for large open pit copper mine on Vancouver Island. Obtained plant materials, conducted annual assessments and prepared annual reclamation reports.

1996 MacMillan Bloedel Limited (Acres International Limited)
Design of restoration program for Theodosia River WRP. Work included bioengineering designs for major forest landslides.

1996 Ducks Unlimited
Development of a manual for shrub management including the use of bioengineering systems for shrub propagation.

1996 Weyerhaeuser Canada Ltd. (Golder Associates Ltd.)
Design and supervision of bioengineering systems for stabilization of landslides in the Willis Creek area. A total of 149 linear meters of live pole drains and 47 linear meters of wattle fences were installed.

1996 Pacific Forest Products Limited (D. Tripp Biological Consultants)
Assessment of riparian reclamation, including bioengineering, in Gold River watershed.

1996 Sechelt Creek Power Project (Nelson Environmental Services)
Design and supervision of bioengineering system to stabilize creek bank which had become de-stabilized due to project development.

1996 - 1999 B.C. Ministry of Highways
Environmental Coordinator for $1.3 billion Vancouver Island Highway Project. Design of bioengineering systems for treatment of unstable highway slopes. Developed innovative reclamation programs for specific sites.

1996 B.C. Ministry of Forests
Development and presentation of a course on steep slope safety (Duncan Forest District). Assessment of Chapman Creek landslides and development of bioengineering solutions (Powell River Forest District). Assessment of landslides (Chilliwack Forest District)

1996 Redfern Resources, Tulsequah Chief Mine
Development of a reclamation plan for proposed base metal mine in Northwestern B.C. including soil sampling and analysis, substrate development, revegetation and scheduling.

1996 - 1997 Englishman River Aggregates
Preparation of a reclamation plan for proposed gravel pit in the Parksville area.

1996 – 1997 International Forest Products Ltd.
Develop restoration prescriptions for landslides and unstable gullies in the Lost Shoe – Thunderous, Little Toquart, Catface Mountain, Muriel Ridge, and Shark Creek areas of Clayoquot Sound. Supervised restoration work in Lost Shoe – Thunderous area.

1997 Ministry of Forests
Rehabilitation assessment for landslides in the Nahatlatch River, Spuzzum Creek and Mowhokam Creek areas of the Chilliwack Forest District. Design of bioengineering solutions for treatment of road associated landslides. Supervision of work.

1997 Western Forest Products
Inspection of landslide sites in Sombrio watershed and general bioengineering prescriptions for treatment.

1997 Cowichan Valley Regional District
Design of a reclamation program for a proposed landfill site utilizing a seal, composted dry land sort wastes and natural forest soils.

1997 Canadian Pacific Railway Company
Design of reclamation program for proposed new line of railway near Lacombe, Alberta. Preparation of responses to Canadian Transportation Agency information requests

1997 – 1998 Westmin Resources Ltd.
Design and development of revegetation prescriptions for soil cover test plots to treat acid generating / high metals tailings materials.

1997 – 1998 International Forest Products Ltd.
Design of bioengineering prescriptions for landslides and unstable slopes in the Malksope River drainage. Treatments to include over 4,000 modified brush layers, 240 live gully breaks and 120 m of live bank protection.

1997 – 2003 Ministry of Forests
Development and presentation of a course (BC Forestry Continuing Studies Network) on soil bioengineering that is offered throughout British Columbia. Development of demonstration sites in each forest region showing bioengineering principles.

1999 Talisman Energy Inc.
Design, contract tendering and supervision of bioengineering project in Chetwynd area including 250 live smiles, 200 m of live pole drains and 500 m of wattle fences. Treatments were designed to stabilize failing cut slopes.

1999 Hecate Strait Streamkeepers
Design and supervision of bioengineering project for Chinukundl landslide on the Queen Charlotte Islands.

1999 Tsawout Indian Band
Design and supervision of restoration work on sewer pipeline. Work included planting of over 300 sword ferns and 400 trees (cedar and alder).

1999 - 2000 Ainsworth Lumber Co. Lillooet Mill
Preparation of riparian restoration plan for along the Seton River in Lillooet. Design called for pocket planting, brush layers and live staking as well as planting rooted plugs. Supervision of initial installations in spring of 2000. Further work was conducted in the spring of 2001.

2000 Ministry of Forests
Preparation of section on bioengineering for "Resource Road Rehabilitation Handbook: Planning and Implementation Guidelines" WRP Technical Circular No. 3.

2000 Ministry of Environment Lands and Parks
Revegetation prescriptions and supervision of portions of China Beach Provincial Park. Successional reclamation treatments were used to revegetate an old gravel pit, a garbage dump and an old sawmill site.

2000 Thurber Engineering Ltd.
Development of soil bioengineering prescriptions for unstable slopes in Mount Douglas Park, Victoria, B.C. Plans were prepared for unstable Quadra sand slopes.

2000 City of Nanaimo
Restoration design for Neck Point Park and trail stabilization suggestions for Northfield Creek area. Designs include pocket plantings to out-compete broom and blackberry and wetland restoration.

2000 Ainsworth Lumber Co. Yalakom FSR
Prepared bioengineering design for steep unstable slopes along the Yalakom River. Designs included 415 modified brush layers and planting of 400 rooted plugs.

2000 Clayoquot Wilderness Resort
Design of restoration system for sites disturbed during previous logging. Plans included planting with pioneering species as well as establishment of kinnikinnick on the tops of rock cuts.

2000 Atco Lumber Co.
Designed and supervised installation of bioengineering systems to treat troublesome cut slopes above Nelson, B.C. A total of 77 modified brush layers, 44 m of live pole drains and 100 live stakes were installed.

2000 Eskay Creek Mine
Rare species assessment and soil erosion assessment for proposed 6 km tailings discharge pipeline.

2000 Christy Point Apartments Ltd.
Preparation of shoreline restoration plans for treatment of riprap area and mud flats adjacent to apartment complex. Plans call for planting of salt marsh species as well as pocket planting in the riprap.

2000 Regional District of Bulkley-Nechacko
Assessed three sites along the Bulkley River to determine the effectiveness of soil bioengineering solutions to bank erosion. Presented a brief seminar on the use of soil bioengineering for treatment of eroding sites.

2000 - 2001 University of British Columbia
Preparation of revegetation designs and contract tender for gully area adjacent to Cecil Green House. A total of 2,000 m of wattle fencing, 60 m of live pole drains and about 225 live stakes were installed. Acted as environmental monitor and supervised bioengineering work.

2001 Fisheries Renewal BC
Designed and provided overall supervision of bioengineering work on Stoltz Claybank along the Cowichan River. A 10 person native crew was trained and installed live stakes, wattle fences, live gully breaks and live pole drains.

2001 Forest Renewal BC
Prepare a “Restoration Species Manual for the Pacific Northwest” to include 225 species that can be used for restoration purposes with a short write-up on the taxonomy, range, growth form, ecological characteristics, tolerances and preferences and restoration considerations.

2001 Ministry of Environment, Lands and Parks
Prepared Streambank Restoration Manual providing details of restoration methods that can be used to treat damaged streambanks, constructed habitat and other riparian sites in need of treatment.

2001 - 2003 City of Regina
Designed and supervised installation of a demonstration bioengineering system to treat the eroding dikes along Wascana Creek in downtown Regina. A system of emergent aquatic vegetation was used to solve wave erosion problems while a diversity of woody species were used on the dikes.

2001 Small Harbours Branch, DFO
Developed conceptual treatments for environmental enhancement of French Creek Harbour including a drainage treatment system using a created wetland, breakwater riprap revegetation and visitor amenities.

2001 Terrestrial Ecosystem Restoration Program, MWLAP
Preparation of "Guidelines for Effective Ecosystem Restoration". This web based product is designed to give people involved in ecological restoration a foundation of the basic components of an effective project.

2001 - 2002 Terrestrial Ecosystem Restoration Program, MWLAP
A major report entitled "The Role of Invasive Species Management in Terrestrial Ecosystem Restoration" was prepared for use by those engaged in various aspects of ecosystem restoration.

2002 Parry's RV Park and Campground, Parksville
Installation of live palisades and live staking on the bank of the Englishman River to protect the bank from erosion. About 200 live palisades were installed along a section of riverbank that was actively eroding.

2002 Wolverine Coal Project Reclamation Plan, Western Canadian Coal Co.
Reclamation plans were prepared for a major proposed coal mine in the Northeast Coal Block near Tumbler Ridge. Plans entailed soil salvage and use and revegetation to restore land use values primarily associated with wildlife use of the land.

2003 Best Management Practices for Mineral Exploration, Lanark Consultants
Reclamation and erosion protection best management practices were prepared for a manual designed for the mineral exploration sector. This is to be part of the new health, safety and reclamation code for British Columbia.

2003 University of Victoria
Development and presentation of a 1.5 unit course on the application of soil bioengineering in ecosystem restoration. This 5 day course with pre- and post-course assignments covers all aspects of soil bioengineering within the context of ecosystem restoration.

2003 Quality Assurance for Seeding and Soil Bioengineering Work, TimberWest Forests Ltd.
Quality assurance was provided for two aerial seeding contracts and one soil bioengineering contract. Seeding work was conducted in the Beaver Cove area (TFL#47) while both seeding and soil bioengineering work was undertaken in the Gordon River area (TFL#46).

2003 Somenos Garry Oaks Restoration Plan, MWLAP
Restoration plans were prepared for the Somenos Garry Oak property in the Cowichan Valley. Species at risk as well as cultural history were some of the considerations that went into the restoration plan. The plan was developed using an adaptive management framework.

2003 Mactaggart Residence, Edmonton, AB
Soil bioengineering prescriptions were prepared to address steep, eroding slopes above the North Saskatchewan River in Edmonton, Alberta. Prescribed treatments include live pole drains, live staking, wattle fences and live reinforced earth walls. Treatments will be applied in the spring of 2004 pending approval by the owner.

2003 Terasen Gas
Development of soil bioengineering prescriptions and supervision of installation at the high pressure gas pipeline crossing of French Creek near Parksville, B.C. Treatments included live gravel bar staking and live palisades.

2003 Stonebridge at Whistler
Development of an innovative restoration program for an upscale property development in Whistler involving over 50,000 native plants and the integration of natural successional processes in restoration of road cuts and fills.

2003 Husky Energy
Design of restoration solutions for three well sites in the Lloydminster area. Issues included the potential for excessive erosion and fine textured soils.

2003 Point Grey Natural Foreshore and Waterfowl Sanctuary Protective Society
Assisted in the development of concepts for treatment of eroding shoreline in Kitsilano area of Vancouver.

2004 Ministry of Water Land and Air Protection
Revised and updated the Best Management Practices for Urban and Rural Land Development.

2004 The Land Conservancy of B.C.
Designed and supervised construction of wattle fences to treat eroding bank at TLC Cowichan River cabin. About 150 m of wattle fencing was installed.

2004 Hul'qumi'num Treaty Group (HTG)
Hul'qumi'num Traditional Use Plants Ecological Assessment. Determination of land area required to support production of traditional use plants and animals.

2004 DFO Lethbridge
Developed BMP's and fact sheets for alternative streambank erosion protection methods.

2005 - 2006 Ministry of Water, Land and Air Protection
Revised Best Management Practices for Urban and Rural Land Development and presented workshops on this document.

2005 - 2006 Ministry of Energy, Mines and Petroleum Resources
Contract reclamation inspections for BC MEMPR.

2006 Invasive Plant Council of BC
Coordinated eradication efforts for Carpet Burweed.

2006 Petro-Canada (UMA Engineering) Fort Nelson area
Reclamation assessment of salt contaminated gas well sites.

2006 - 2008 Yukon Oil and Gas Commission
Assessment of recovery of cut lines and winter roads on the Eagle Plains, Peel Plateau and adjacent areas of the North Yukon and in the Liard River area of Southeast Yukon.

2007 City of Victoria
Preparation of plans, tendering of work and supervision of work for small bioengineering project on the ocean shore in Vic West. Brush layers were installed.

2007 Private Residence (Coward)
Design of restoration program, tendering and supervision of work for restoration of a landslide at a private residence in Victoria, BC. A total of 227 m of wattle fencing was constructed.

2007 BC Ministry of Environment
Terms of Reference for Bio-inventories and site evaluations for the Develop with Care document.

2007 City of Vancouver Parks
Development of restoration prescriptions for cliff sites along the Seawall by Siwash Rock that had been damaged in December 2006 windstorm.

2007 - 2008 Quinsam Coal Corporation
Preparation of reclamation plans for small coal mine near Campbell River. Plans call for the use of red alder as a pioneering species to assist in the growth of Douglas-fir.

2007 Parks Canada Agency, Gulf Islands National Park Reserve (GINPR)
Preparation of restoration plans for two small islands within GINPR

2007 Fisheries and Oceans Canada (DFO) (Alberta)
Preparation of restoration plans for the shoreline of Wabamum Lake east of Edmonton AB.

2007 Faro Mine Closure
Development of revegetation plans for reclamation of the Faro lead zinc mine in Faro, Yukon.

2008 Petro-Canada
Design and implementation of a soil bioengineering system to treat a steep coastal slope where a fuel station had been removed.

2008 Esquimalt Parks
Development of park management plan for Macaulay Point Park addressing invasive species, species at risk and off-leash dog use.

2008 Calgary Stampede
Design and implementation of river bank stabilization works along the Elbow River at the Calgary Stampede grounds.

2008 Northgate Minerals Corporation, Kemess Mine
Development of restoration design for large borrow pits adjacent to tailings pond and suggestions for treatment of tailings pond dam.

2008 EPCOR Power Corporation
Design and implementation of a soil bioengineering system to treat a steep (50+ degrees) landslide on an access road to a power plant near Pemberton, BC.

2008 Terasen Gas
Design and implementation for riparian restoration treatment at the Vancouver Gas Pipeline crossing of Bonell Creek at Nanoose.