

EDUCATION & TRAINING

Advanced Diploma in GIS Applications, Malaspina University-College, Nanaimo BC 2007-2008

Helicopter Training, Nanaimo BC 2007

Accredited Silviculture Surveyor, Ministry of Forests Silviculture Surveyor Course, BC 2006

Forest Resources Technology Diploma Program, Malaspina University-College, Nanaimo BC 2002-2004

- Earned Dean's List in 2004

Recipient of various awards and scholarships:

- B.C Truck Loggers Association Scholarship (2003&2004)
- Fraternal Order of Lumberman Award (2003)
- Don F. Hammond Scholarship (2003)
- Weyerhaeuser Award (2003)
- Hoo Hoo Club Award (2003)

- Enterprise GIS (EGIS) Database Training (BC Transmission Corporation)
- Class 5 Driver's License
- Utility Riparian Expert (BC Transmission Corporation)

EMPLOYMENT EXPERIENCE

Database/GIS Specialist, MacDonald Environmental Sciences Ltd. Nanaimo, BC October 2009 to Present

Project Management

- Collaborate on the design of GIS requirements and conduct spatial analysis (GIS; developing project base maps, designing and conducting spatial analyses, preparing maps, etc.);
- Collaborate on the design of flat file and relational databases that satisfy project requirements;
- Manage and populate databases through data entry from hard copy sources and/or data translation from electronic files;
- Conduct data verification and database auditing in accordance with MESL standard operating procedures
- Participate in the development of environmental quality guidelines and/or related management tools;
- Conduct various database queries and associated data and statistical analyses using various software programs, to assess risks to ecological receptors and/or damages to natural resources;
- Participate in the identification of key indicators of environmental quality conditions (i.e., data types; e.g., water chemistry, whole sediment chemistry, tissue chemistry, whole sediment toxicity, benthic invertebrate community structure) and metrics (e.g., concentrations of specific chemicals of potential concern; amphipod survival).

GIS Technician, Integrated Information Systems Ltd, Nanaimo, BC

2008/09

Project Management

- Managed GIS projects (DFO, BC Marine Conservation Analysis) including planning, project scheduling, and completion estimates
- Created, edited and analyzed spatial and attribute information in a GIS platform
- Experience in cartography/map presentation (knowledge of coordinate systems & projections, vector & raster data formats)
- Prepared/pre-processed data for GIS analysis and conducted summary analyses of GIS layers
- Liaised with data providers and co-workers
- Maintained and created data integrity and metadata
- Documented process and procedures in a report format

Phone: (250) 729-9625 □ Fax: (250) 729-9628 □ Email: mesl@shaw.ca

Forestry Related Tasks

- Corrected spatial representation of cutblocks to either the latest orthophoto or by using georeferenced Logging Plan/Silviculture Prescription maps.
- Created and edited topologically correct data
- Provided various forestry related maps to field staff: Block, Cruise Plan, Road Construction, Site Plan, and Logging.

GIS Technician, Ministry of Forests and Range, Nanaimo, BC 2008 (Practicum)

- Digital stand mapping: point, line and polygon feature creation from field notes
- Developed various charts, graphs, and summary tables for stand structure statistical analysis using Microsoft Excel and ArcMap applications
- Generated vegetation plots and hyperlinked corresponding jpeg images
- Assisted in developing methodology documentation report for digital spatial mapping and analysis

Senior Forest Technician, Forsite Consultants Ltd., Campbell River BC 2004/07

This position relied upon ability to liaise with various clients, a strong technical aptitude as well as the following specialized skills:

Vegetation Management (Silviculture)

- Provided data collection and statistical analysis for legal silviculture surveys on reforested cutblocks to provincial standards
- Completed vegetation data collection and analysis including suitable treatment recommendations and mapping
- Biophysical inventory and riparian prescriptions for BC Transmission Corporation on Vancouver Island, Lower Mainland, and North Coast

Forest Operations

- Tight chain and GPS traverse of roads and cutblocks
- Deflection line and stream traverse
- Cutblock and Road layout, traverse, and marking

Administration

- Project Management - planning, scheduling, and budgeting of field and office work
- Successfully trained and supervised summer students
- Enterprise GIS (EGIS) database entry and training for BC Transmission Corporation

Forest Technician, District of North Cowichan, North Cowichan BC 2003 (Summer)

- Accurately provided survival survey data and analysis
- Patrolled high risk fire zones
- Inspected and maintained culverts

TECHNICAL & MECHANICAL ABILITY

- Proficient in various applications: Microsoft Office Suite, ArcGIS Desktop, EGIS, GPS, RoadEng, Genus
 - Competent operating ATVs, dirt bikes, two-way radios
-

PUBLICATIONS

MacDonald, G.L. Linder, C.G. Ingersoll, S.E. Finger, M.A. Crawford, H.J. Prencipe, J.A. Sinclair, M.B. Meneghetti, and J.E. Hinck. 2010. Handbook for Assessing Risks to Fish and Wildlife Associated with the Potential Use of Water, Treated Wastewater, Stormwater, Sediment, Soil, Biosolids, or Other Materials on Units of the National Wildlife Refuge System. Volume I: Overview of the Recommended Decision Framework. Prepared for U.S. Fish and Wildlife Service. Vancouver, Washington. Prepared by MacDonald Environmental Sciences Ltd., Nanaimo, British Columbia and United States Geological Survey, Columbia, Missouri.

Phone: (250) 729-9625 □ Fax: (250) 729-9628 □ Email: mesl@shaw.ca

MacDonald, G.L. Linder, C.G. Ingersoll, S.E. Finger, M.A. Crawford, H.J. Prencipe, J.A. Sinclair, M.B. Meneghetti, and J.E. Hinck. 2010. Handbook for Assessing Risks to Fish and Wildlife Associated with the Potential Use of Water, Treated Wastewater, Stormwater, Sediment, Soil, Biosolids, or Other Materials on Units of the National Wildlife Refuge System. Volume II: Description of the Rapid (Tier 1) Assessment Process. Prepared for U.S. Fish and Wildlife Service. Vancouver, Washington. Prepared by MacDonald Environmental Sciences Ltd., Nanaimo, British Columbia and United States Geological Survey, Columbia, Missouri.

MacDonald, G.L. Linder, C.G. Ingersoll, S.E. Finger, M.A. Crawford, H.J. Prencipe, J.A. Sinclair, M.B. Meneghetti, and J.E. Hinck. 2010. Handbook for Assessing Risks to Fish and Wildlife Associated with the Potential Use of Water, Treated Wastewater, Stormwater, Sediment, Soil, Biosolids, or Other Materials on Units of the National Wildlife Refuge System. Volume III: Description of Detailed (Tier 2) Assessment Process. Prepared for U.S. Fish and Wildlife Service. Vancouver, Washington. Prepared by MacDonald Environmental Sciences Ltd., Nanaimo, British Columbia and United States Geological Survey, Columbia, Missouri.

MacDonald, D.D., C.G. Ingersoll, M. Crawford, H. Prencipe, J.M. Besser, W.G. Brumbaugh, N. Kemble, T.W. May, C.D. Ivey, M. Meneghetti, J. Sinclair, and M. O'Hare. 2010. Advanced screening-level ecological risk assessment (SLERA) for aquatic habitats within the Tri-State Mining District, Oklahoma, Kansas, and Missouri. Draft Final Technical Report. Submitted to United States Environmental Protection Agency (USEPA). Region 6, Dallas, Texas, Region 7, Kansas City, Kansas, and US Fish and Wildlife Service, Columbia, Missouri. Submitted by MacDonald Environmental Sciences Ltd., Nanaimo, British Columbia. United States Geological Survey, Columbia, Missouri. CH2M Hill, Dallas, Texas

MacDonald, D.D., P. Landrum, J. Sanderson, C. Lafontaine, M. Crawford, H. Prencipe, M. Meneghetti, M.L. Haines, A. Czarnecki, D. Smorong, O. Forest, and J. Smejkal. 2010. Status and Trends of Environmental Quality Conditions in the Transboundary Reach of the Slave River, NWT. Draft Report. Prepared for Indian and Northern Affairs Canada. Yellowknife, Northwest Territories. Prepared by MacDonald Environmental Sciences, Nanaimo, British Columbia. Landrum and Associates, Ann Arbor, Michigan. Indian and Northern Affairs Canada, Yellowknife, Northwest Territories.