

ESSA Technologies Ltd.
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Alexander W. Hall

Post-Secondary Education

Master of Resource and Environmental Management candidate, Simon Fraser University, 2007-present

Bachelor of Science (Physical Geography, Honours), Simon Fraser University, 1998-2004

Certificate in Spatial Information Systems, Simon Fraser University, 1998-2004

Professional Skills

Communication:

Strong technical writing and editing skills

Excellent presentation skills

Effective collaborative and interpersonal skills

Course-based skills/experience:

Structured quantitative decision analysis (including Bayesian analysis of uncertainties)

Negotiation and conflict resolution

Multi-stakeholder planning processes

Benefit-cost analysis

Economic impact analysis

Multiple accounts analysis

Computer software:

Advanced ability in MS Word and Excel

Proficiency in ArcGIS, Macromedia/Adobe Freehand and Dreamweaver, SPSS, MS Access

Experience with the Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3)

Basic competency in R, Idrisi GIS

Scholarships and Awards

- Province of British Columbia student-led research grant (2010)
- NSERC Alexander Graham Bell Post-graduate Scholarship (2008-2009)
- Pacific Century Graduate Scholarship (2008-2009)
- Faculty of Applied Sciences NSERC Research Assistantship (2008-2009)
- C.D. Nelson Memorial Entrance Scholarship (2007-2008)
- Faculty of Science Dean's Medal nomination (top student in faculty) (2005)
- SFU Alumni Scholarship (2004)

- Undergraduate Honour Roll Recipient (2000, 2001, 2004)
- Undergraduate Open Scholarship (1999-2004)

Professional Experience

2010-present **Systems Ecologist**, ESSA Technologies Ltd., *Vancouver, BC*

- Systems Ecologist within the Terrestrial Ecosystem Science Team
- Development of training course and materials for TELSA (Tool for Exploratory Landscape Scenario Analyses), customize for modelling invasive species and management options
- Development of conceptual models to explore the cumulative effects of multiple impact factors on the decline of Fraser River sockeye salmon
- Data compilation, synthesis and graphical representation
- Technical report writing

2009-2010 **Teaching Assistant for Graduate Classes**, School of Resource and Environmental Management, SFU, *Burnaby, BC*

- REM 621 – Environmental and Ecological Economics
- REM 625 – Risk Assessment and Decision Analysis
- Assisting students with assignments, labs and other course material
- Review of assignments and exams
- Grading assignments and exams
- Preparing and delivering guest lectures

2006-2007 **Research Assistant**, Geospatial Data Research Lab, Geography Department, SFU, *Burnaby, BC*

- Assistance and support in many projects within Dr. Nadine Schuurman's research program
- Substantial assistance in preparation/submission of a CIHR Operating Grant including responsibility for the budget, literature review, figure production, timeline preparation, and general organization
- Logistic regression analysis of relationship between physical activity levels and both socioeconomic variables and land use proportions within local walking area, defined by using road-based buffers
- Literature searches and reviews for numerous projects
- Editing research papers

- 2005-2006 **Research Assistant**, Centre for Research on Inner City Health, St. Michael's Hospital,
Toronto, ON
- Construction of a web-based atlas of socioeconomic factors associated with mortality and local government expenditures for select North American metropolitan areas
 - Assist in construction of new dataset of local government finance at metropolitan scale for Canadian cities
 - Development and management of spatial and a-spatial datasets
 - Extraction and integration of Canadian and US census data
 - Integration of different data resolutions
 - Creation of research posters and handouts
- 2004 **Mosquito Control Technician / Data Management Assistant**, Morrow BioScience, *North Vancouver/Langley, BC*
- Management/design of mosquito control database
 - Design and implementation of field data standardization and compilation processes
 - Merging field-collected sample data into the database
 - Preparation of monthly pesticide use reports
 - Development of user manual
 - Integration of MS Access and ArcView GIS
 - Mapping of sites for surveillance and sampling
 - Development of sampling program for species distribution mapping
 - Coordination of data between nuisance control sampling and West Nile Action Plan surveillance
 - Surveillance of potential breeding sites and treatment of existing breeding sites
- 2002 **Environmental Data Analysis and Modeling Assistant** , Environment Canada,
Meteorological Service, *Vancouver, BC*
- Modeling of environmental and climatic change processes including extraction and preparation of model inputs and verification of outputs
 - Assessment of climatic and hydrologic data for the identification of trends and processes • Statistical analysis of time series data
 - Plotting of data and derivative information used in process identification
 - Identification of suspect and other problem data
 - Drafting, editing and completion of two research papers on spatial patterns in recent climate change, both published in scientific journals
 - Application of k-means clustering to decadal patterns in temperature and precipitation for arctic and arid climatic regions
 - Editing manuscripts and preparation of spatial figures for additional published research papers

Publications and Reports

Project Reports

ESSA Technologies Ltd. 2010. Introduction to TELSA: Participant's Manual. Prepared by ESSA Technologies Ltd., Vancouver, B.C. 110 pp.

Frid, L., K. Bryan, A. Hall, T. Holcombe and A. Olsson. 2010. Developing a Decision Support Model for Buffelgrass Management in Southern Arizona. Report prepared by ESSA Technologies Ltd., Vancouver, British Columbia. 33 pp. + appendices

Peer Reviewed Publications

Oliver, LN, N Schuurman, and AW Hall. Assessing the influence of the built environment on physical activity for utility and recreation in suburban Metro Vancouver. Submitted to the Journal of Environmental and Public Health. Being submitted presently (November, 2010). (11pp).

Oliver, LN, N Schuurman, and AW Hall. 2007. Comparing circular and network buffers to examine the influence of land use on walking for leisure and errands. International Journal of Health Geographics 6: 41 (24pp).

Hall, AW, PH Whitfield, and AJ Cannon. 2006. Recent Variations in Temperature, Precipitation, and Streamflow in the Rio Grande and Pecos River Basins of New Mexico and Colorado. Reviews in Fisheries Science 14: 51-78.

Whitfield, PH, AW Hall, and AJ Cannon. 2004. Changes in the Seasonal Cycle in the Circumpolar Arctic – 1976-1995: Temperature and Precipitation. Arctic 57(1): 80-93.