

B. Thor Smestad (B.S.F., M.Sc., P. Ag.)

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Citizenship: Canadian

Summary of Experience

I am a specialist in the area of revegetation and reclamation, particularly in relation to soil erosion control and slope stabilization. I also have expertise related to the restoration and improvement of agricultural productivity using organic methodologies.

My natural resource management work experience is varied and extensive. I have worked as a forest technologist and forester for years, mostly in British Columbia and primarily in the area of silviculture. I have also participated in forestry and environmental research projects in Finland and in the Canadian Arctic. Since 2005 I have been engaged as a reclamation and soil erosion control specialist for a company based in Nelson, B.C. This employment has involved work on a diverse array of projects in western Canada, with tree and shrub vegetation planted in the form of live cuttings (Soil Bioengineering) an important approach used.

My formal education includes a B.S.F. in Forest Resources Management and a Master's Degree in Soil Science. My master's study focused on tropical soil fertility replenishment in association with short-duration (shrub) fallows in western Kenya, and I traveled twice to this country in order to conduct fieldwork for the degree (1997 and 1998).

Qualification Highlights

Understand the requirements for successful vegetation establishment. Have experience in the highly specialized soil conservation and reclamation technology known as Soil Bioengineering.

Experienced in supervising the implementation of environmental projects, including the direction of heavy machinery. Respected by field crews under my supervision and considered a demanding but fair supervisor. Places safety of workers paramount.

Competent and meticulous in the collection, analysis and interpretation of environmental data, and in handling large, complex data sets. Also proficient in the preparation of technical and scientific reports. In addition to writing skills this includes the production of report graphics (using CorelDraw).

Have a high level of physical fitness (avid nordic and down-hill skier). Accustomed to working in extreme environmental conditions. Willing and able to participate in the heavy labour associated with environmental project implementation. Used to working on hazardous terrain including steep slopes.

Education

- 2001 **Master's Degree: Soil Science (M.Sc.)**
Department of Soil Science, University of Saskatchewan, Saskatoon, SK
Advisor: Prof. Holm Tiessen
Published study results: Smestad BT, Tiessen H and Buresh RJ (2002). Short fallows of *Tithonia diversifolia* and *Crotalaria grahamiana* for soil fertility improvement in western Kenya. *Agroforestry Systems* 55(3): 181-194.
- 1994 **Bachelor of Science: Forestry (B.S.F.)**
University of British Columbia, Vancouver, B.C.
Major: Forest Resources Management
- 1982 **Diploma in Forestry Technology**
Selkirk College, Castlegar, B.C.

Professional Designations

Accepted by CPESC Inc. (Marion, NC, USA) to write the full CPESC exam (**Certified Professional in Erosion and Sediment Control**). Upon successful competition I will be granted certification as a CPESC (www.cpesc.org).

Professional Agrologist (P. Ag.). B.C. Institute of Agrologists, 205 - 733 Johnson Street Victoria, B.C., Canada (www.bcia.com).

Certificates

Pesticide Applicator Certificate (Industrial Vegetation & Noxious Weeds). B.C. Ministry of Environment, Certificate No. 163917. Expires 21-May-2015.

B.C. Silviculture Surveyor Accreditation. Registration No: AA2004006.

Recent Training Courses

- May 11-19, 2010 **Invasive Plant Management Training**. Invasive Plant Council of B.C. Course held in Nelson.
- January to April 2009 **Organic Field Crop Management**. Distance learning program, Nova Scotia Agriculture College, Truro, Nova Scotia.
- March 19 to 24 2007 **Canadian Soil Foodweb Training**. Sustainable Studies Institute, Corvallis, Oregon. Course held at Vulcan, Alberta.
- July 3 to 9 2005 **Wetland Construction and Conservation**. B.C. Wildlife Federation and the B.C. Wetland Institute. Course held at Sooke, B.C.

Work Experience

- Spring 2004
and
2005 to
Present
- Terra Erosion Control, Nelson, B.C.**
Title: Senior Reclamation Specialist
- Assist and collaborate in the design and installation of erosion control and site reclamation treatments.
 - Diverse project locations (e.g., steep slopes, landslides, stream banks, Alberta oil sands tailings, contaminated sites).
 - Prepare proposal & prescription documents, cost estimates, and post-project as-built reports.
 - Soil bioengineering techniques included in most projects. Familiar in use of soil erosion control products and soil amendment materials.
 - Site Superintendent / Crew Forman during project implementation.
 - Manage multi-year monitoring program of reclaimed site. This involves annual data and soil / foliage sample collection, and the production of an annual report with recommendations.
- Summer / Fall
2010
- Progressive Forest Management, Kaslo, B.C.**
Title: Invasive Weed Management Project Supervisor
- Acted as Crew Foreman during an invasive weed management program. The crew duties included a roadside inventory of invasive weed incidence throughout a large geographic region (Kalso Region, B.C.), and implementation of mechanical control treatments for key species. I also established several small trials involving the planting of fast-growing deciduous cuttings for invasive weed control (encouraging competition), and a small grass seeding trial.
 - Prepared comprehensive report upon completion of the project.
- Summer / Fall
2004
- Timberland Forestry Consultants (2001), Nelson, B.C.**
Title: Silvicultural Forester
- Responsible for nearly 1000 ha of silviculture surveys (single and multi-layered).
 - Silviculture prescription data collection, including ecosystem classification and characterization of soils.
- Winter 2002
- Department of Soil Science, University of Saskatchewan,**
Saskatoon, SK
Title: Research Assistant, under Prof. Holm Tiessen
- Laboratory analysis of soil samples.
- 1994 to 1995
and 1997
- Hillcroft Forestry Consulting Inc., Parksville, B.C.**
Work location: Port McNeill and Port Alberni, B.C.
Title: Forester (attached to MacMillan Bloedel Ltd.)
- Silviculture surveys, forest ecosystem classification, post-harvest site assessments.
 - Forest planting, thinning and weeding (herbicide) assessments and silviculture contract supervision.
 - Supervision of seeding operations for soil erosion control (seeding by truck and helicopter).

- Summer 1994 **Department of Geography, University of British Columbia,**
Vancouver, B.C.
Work Location: Ellesmere Island, Nunavut
Title: Research Assistant
- Plant growth measurements and soil sampling.
- Summer 1992 **Evans Forest Products,** Golden, B.C.
Title: Forestry Technician
- Data collection for pre-harvest silviculture prescriptions.
 - Field engineering for high-lead harvesting operations and road locations.
 - Reconnaissance surveys of undeveloped watersheds.
- Summer 1991 **Terrasol Revegetation Erosion Control,** Vancouver, B.C.
Title: Project Field Assistant
- Monitoring and assessment of procedures initiated to control wind erosion within drawdown zone of reservoir near Revelstoke B.C.
- Summer 1990 **The Finnish Forest Research Institute,** Punkaharju, Finland
Title: Research Assistant
- Collection of soil samples and various forest measurements.
- Summer 1989 **Western Forest Products Ltd.,** Queen Charlotte Islands, B.C.
Title: Forestry Technician
- Silviculture surveys.
 - Layout and supervision of brushing and weeding contracts (herbicide).
- 1983 to 1985
1987 to 1988
(seasonal) **Kelowna Economic Recovery and
Employment Development Association (KEREDA),** Kelowna, B.C.
Title: Forestry Technician / Head Forestry Technician
- Layout of blocks and supervision of crews on forest thinning projects.
 - At one point in charge of 12 crews (100+ workers).
- 1987 and 1985
(seasonal) **Dean Allen Forestry Consulting,** Thunderbay, Ontario
Title: Forestry Technician
- Silviculture and forest inventory surveys in Northwestern Ontario.
- 1981 to 1984
and 1988
and 1990
(seasonal) **Tree planting**
Coast Range Silviculture / Forestcover Resources / Cascade Resources
- Tree planting in the coastal and interior regions of B.C., and in Alberta.
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Recent Volunteer Work

- Spring /
Summer 2010 In conjunction with other volunteers in Nelson I have been involved in soil erosion control and reclamation work along the waterfront in Nelson. This work included the use of soil bioengineering techniques.

References available upon request