



Natural Resource Sector Continuous Learning Forum Implementation Plan

PROJECT REPORT



FORREX Forum for Research and
Extension in Natural Resources



BC Ministry of Forests and Range
Forest Investment Account–
Forest Science Program

Natural Resource Sector Continuous Learning Forum Implementation Plan

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Natural Resource Sector Continuous Learning Forum Implementation Plan Options Paper for Discussion

1 Background

In December 2006 a group of individuals representing natural resource sector employers, regulators, professional associations, and educators, met to define the scope of the problem around continuing education and continuing competency of resource practitioners. They agreed that there are divergent trends in the demand and supply of high quality formal continuing education and non-formal learning opportunities¹ for natural resource practitioners in British Columbia. The developing gap presents potential economic, productivity and resource stewardship risks and constraints to the province's ability to maintain world-leading natural resource management practices.

While the breadth of the issue emerges with recruitment to appropriate technical and undergraduate programs and follows a practitioner throughout their career, the primary focus of the solution would be directed towards post-graduation professional development in both formal and non-formal means. It would include maintaining competency in an area of practice as well as providing access to learning opportunities in emerging competency areas. By making available accessible, affordable opportunities for practitioners to upgrade their skills, better understand the interactions of allied sciences, and be more effective at integrating practices that meet social, economic, and environmental needs, we can expect greater productivity, innovation, and effectiveness in the management of natural resources.

The group of individuals nominated a leadership team to guide the development of a strategic plan and implementation opportunities. In 2007 a strategy was developed to address this problem. The strategy describes a series of measures that will identify and lead to implementation of collaborative solutions, including the formation of the Natural Resource Sector Continuous Learning Forum (the NRCE Forum). After a year of discussions regarding the NRCE Forum strategy, the collaborators met in April 2008 to agree on implementation options. This document describes the final implementation plan for the NRCE Forum.

¹ Continuous learning opportunities preferred by practitioners covering a spectrum from formal accredited courses to less formal high quality learning opportunities using innovative, cost and time effective approaches. Please see strategic plan for more details.

2 About this document

This document contains background information on the NRCE Forum goals, objectives, and strategies². It describes key areas that must be addressed in order to achieve effective formation and implementation of the NRCE Forum. The final implementation options for each implementation area are described.

3 NRCE Forum Strategic Plan Highlights³

The **goal** of the NRCE Forum is to ensure that natural resource practitioners throughout British Columbia will have access to a highly effective system of continuing education that provides timely, relevant, and affordable quality learning opportunities. By making available accessible, affordable opportunities for practitioners to upgrade their skills, better understand the interactions of allied sciences, and be more effective at integrating practices that meet social, economic and environmental needs, we can expect greater productivity, innovation, and effectiveness in the management of natural resources.

1. **OBJECTIVE: Sound, accessible information about current and emerging needs and priorities.**

Continuing education providers, practitioners, professional organizations, employers, and governments require information about current needs and how well they are being met, as well as the costs, benefits, and risks associated with various responses to continuing education needs. Forecasting is equally important to provide an assessment of changing resource management demands, how they impact the knowledge and skills requirements of practitioners, and what the future continuing education needs will be.

STRATEGIES:

1.1 Document the core competency requirements of BC practitioners.

Information about the skills and proven abilities (competencies) required by each resource profession will provide a baseline for personal learning plans, employers' training programs, and continuing education providers.

1.2 Document delivery capacity and programming available to BC practitioners and identify gaps.

Information about the existing delivery capacity that is reasonably available to practitioners (within the province or elsewhere) and understanding where critical delivery gaps exist will provide a basis for public and private continuing education providers' business planning. In addition, providing a single access point for information about available programs and courses will enhance utilization of existing capacity by practitioners.

² For full details please refer to Gorley et al. December 2007. *Improving Access to Continuing Education for British Columbia's Natural Resource Practitioners*. A Natural Resources Continuing Education Strategy 2007–2012. Version. 3.3. FORREX Working Paper.

³ Extracted from Gorley et al. December 2007. *Improving Access to Continuing Education for British Columbia's Natural Resource Practitioners*. A Natural Resources Continuing Education Strategy 2007–2012. Version. 3.3. FORREX Working Paper.

1.3 Analyse current practitioner and employer needs.

Practitioners are required by their professional registering bodies, and by their employers and clients to remain current with new science, technologies and techniques relevant to their areas of practise. Analysis of common needs, as well as those unique to certain professions will help both employers and continuing education providers set priorities and allocate resources effectively.

1.4 Analyse resource management trends and emerging issues in order to forecast future needs.

There is often a time lag between the development of new practices and the transfer of appropriate skills to practitioners. This lag includes the time to recognize and accept the need to adapt; curriculum development; program planning and funding; and delivery. Making available a common body of information about emerging and future needs will help all stakeholders plan more effectively.

1.5 Communicate information to existing and potential continuing education providers.

Making non-proprietary information about needs, gaps, and trends readily available to public and private sector providers increases the likelihood of efficiency and effectiveness of the continuing education “system.”

2. OBJECTIVE: Access to information and advocacy for relevant, credible, and affordable quality learning opportunities.

The knowledge and skills held by practitioners need to be regularly updated, particularly in subject areas directly within their field of practise. Failure to keep up with the rapid pace of change brought about by scientific discovery, advances in technology and changing social needs and priorities can erode competence and inhibit productivity. Resource practitioners often work in remote, dispersed communities without ready physical access to the learning opportunities relevant to their workplace requirements.

STRATEGIES:

2.1 Establish an information “portal.”

Establishing and maintaining an open web-based site that provides basic information about the availability of a wide range of continuing education offerings, and links to appropriate provider sites will provide a benefit to stakeholders by reducing the time and increasing the effectiveness of searches for programs, courses, and other products to meet existing needs. The portal will also accommodate feedback on programs and input on continuing education requirements.

2.2 Develop common standards for continuing education.

The assurance of quality and recognition through voluntary standards will provide funders, practitioners, and employers with greater confidence and value from continuing education offerings. Commonly recognized standards will also enable practitioners to accumulate credits while maintaining the option to transfer between education providers.

2.3 Analyse and provide input to policy affecting continuing education.

Public policy plays an important part in determining the character and effectiveness of continuing education. Legislation can directly and indirectly influence standards, institutional frameworks, and affordability. It is important to understand how current policies support or constrain an effective continuing education system, and to identify and communicate opportunities for improvement.

2.4 Address gaps and advocate solutions through existing or new capacity.

Where high priority gaps in the continuing education system can be identified through consensus, change will be achieved by stakeholders working together to take action, or to encourage governments, other funders and providers to reallocate or increase capacity to meet the need. Over time, where a positive business case exists, success in British Columbia may be extended to a broader continuing education marketplace.

2.5 Encourage innovative solutions, mechanisms, and partnerships.

The demographic and geographic distribution of natural resource practitioners in British Columbia requires that both traditional and new approaches be applied to continuing education needs. By learning from other jurisdictions and professions, sharing best practices, and encouraging innovative delivery mechanisms (including best use of technology and infrastructure), greater and more flexible access to learning opportunities can be achieved.

2.6 Monitor and report trends.

Tracking trends, developing and monitoring progress against success indicators, and sharing the results with all stakeholders in the continuing education community will enable better decision making on matters of access, quality, and affordability of continuing education.

3. OBJECTIVE: An efficient framework for collaboration⁴ between primary stakeholders.

There is currently no continuing education “system” for natural resource practitioners in British Columbia. Sharing information about needs (demand) and opportunities (supply) occurs through a variety of formal and informal means. Practitioners, employers, and continuing education providers have expressed the need for a more systematic approach. The desired framework will enable efficient sharing of information and ideas, and provide a forum for synergy, innovation and action. It will link stakeholders on matters of common interest without inhibiting existing roles, mandates, and competition.

STRATEGIES:

3.1 Provide leadership and facilitation.

Although the natural resource sector continuing education community at large has expressed the need for action, a focal point for leadership and facilitation is necessary to enable the broad spectrum of participants to support concrete solutions. A core group of

⁴ For the purposes of this strategy, collaboration is defined as “two or more parties working together to achieve benefits for both and support the broader continuing education goal.”

energised individuals will work with and on behalf of the larger community to develop and promote solutions to continuing education challenges.

3.2 Establish a forum for collaboration.

A forum is required for collaboration between stakeholders in the continuing education community. The forum will provide for ongoing dialogue, co-ordination of non-proprietary activities, and identification and examination of innovative solutions.

3.3 Foster a shared commitment to goal achievement.

The likelihood of achieving common goals will be achieved by creating a broad-based partnership of stakeholders who formally commit to working together and can provide mutual support and share resources.

3.4 Develop and maintain a plan for action and monitor progress.

A strategy that has been developed through collaboration and provides a common roadmap for change will enable stakeholders to make more informed decisions, share resources more efficiently and measure progress toward objectives.

3.5 Provide pathways for communication and collaboration.

Practical and effective means are needed to enable the exchange of information about implementation of the common strategy and other relevant topics.

4 NRCE Forum Implementation Options

The goal and associated objectives and strategies of the NRCE Forum are ambitious and require mechanisms and capacity to ensure effective implementation. Governance, infrastructure, program development, delivery and evaluation, and capacity options are described in the following section. The options presented are the most logical, and time and cost effective options given the developmental status of the NRCE Forum and that time is of the essence due the current state of the natural resource sector operating environment.

4.1 Implementation Framework

The implementation framework utilizes existing capacity wherever possible. It is proposed that implementation involve two primary elements—the Natural Resource Sector Continuing Education Forum (the Forum), and the Natural Resource Sector Continuing Education Portal (the Portal)—led by a volunteer group of sector representatives, and supported by a small secretariat funded specifically for this purpose. Keeping with the philosophy stated previously, the structure for implementation of the Natural Resources Continuing Education Strategy has been designed to involve the existing and new stakeholders on an ongoing basis. A round-table-based forum (Figure 1) would be modelled after the process used to develop this strategy. The Forum participants would have an avenue for facilitated collaboration, and would be encouraged to also share information and collaborate in sub-groups when appropriate. A small leadership team would be selected from amongst the forum members to ensure momentum and continuity is maintained, and to guide implementation of the Strategic Plan. Other than the volunteer and in-kind contributions of stakeholders, the only additional resources

required will be to provide a Secretariat to support the forum and its leadership team, and for specific projects on a case by case basis.

The Forum would physically convene annually for 1–2 days to evaluate progress, examine trends, network, identify priorities, and update the strategy. The results of the annual workshop would be widely shared. Between annual meetings, the forum will remain active through web-based collaboration tools, information updates, and periodic working groups.

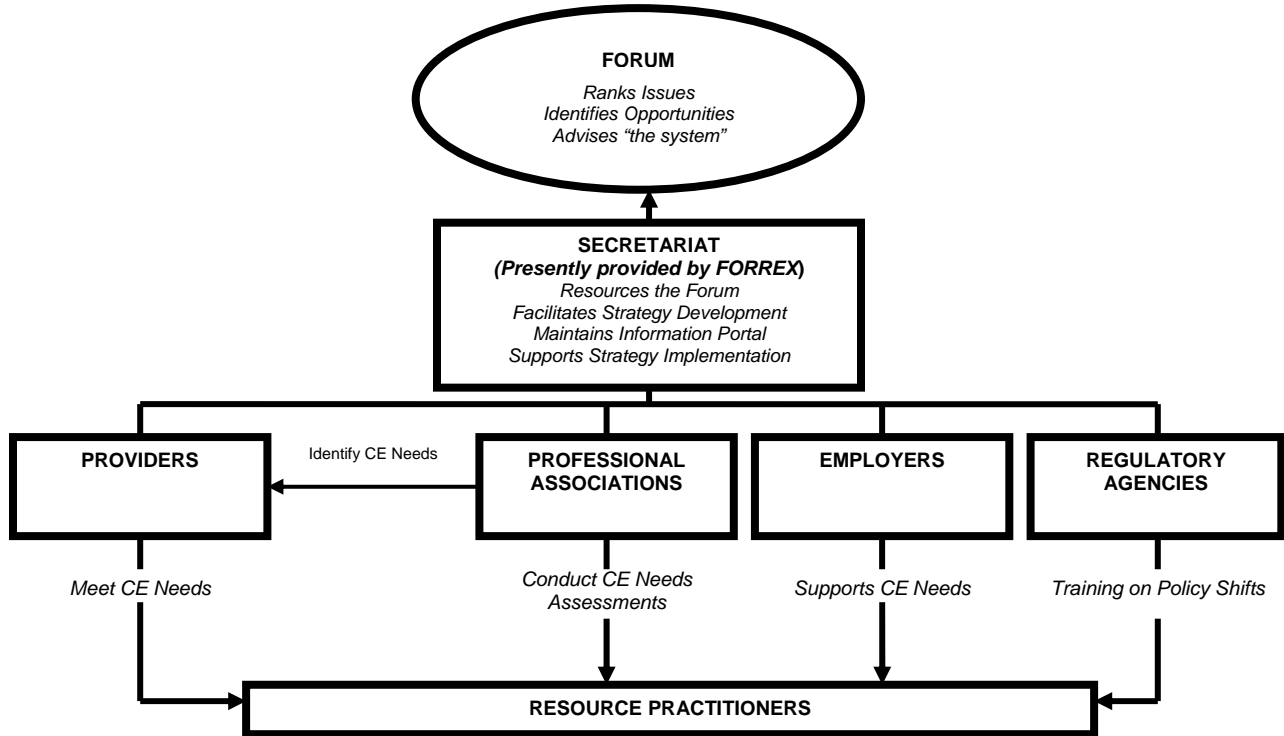


Figure 1. Implementation Framework.

4.2 Governance Option—Voluntary Collaborative Organization Administered by a Non-profit Organization with a Mandate for Continuous Learning

The preferred option suggests that the Natural Resource Sector Continuous Learning Forum (the NRCE Forum) is a voluntary collaboration of individuals representing organizations contributing to the goals and objectives of the NRCE Forum. This option leverages existing infrastructure and provides mechanisms to establish the foundation for the NRCE Forum, focusing on implementation results rather than administrative processes.

Collaborating **organizations** demonstrate commitment to the NRCE Forum via a signed Memorandum of Understanding. The MOU describes the terms and conditions of collaboration with the NRCE Forum. The term of the MOU is 5 years. The legal construct overseeing the NRCE Forum is FORREX, a British Columbia-based charitable non-profit society. FORREX will administer the NRCE Forum on behalf of the collaborators as a distinct department within its legal structure.

NRCE Forum **representatives** are nominated by their organizations and participate by:

- Attending the annual NRCE Forum event
- Contributing ideas to strategic goals and objectives
- Keeping the NRCE Forum informed in-year of related activities that may be of interest to the NRCE Forum, and contribute to the goals and objectives as defined in the strategic plan via submissions to the NRCEFORUM email list service
- Providing an annual update on activities and deliverables completed that contribute to the NRCE Forum
- Electing a leadership team from the representatives

The **Leadership Team** is elected from the representatives and provides guidance to the Secretariat and Administrator on NRCE Forum activities. They do this by meeting on a quarterly basis and chairing the annual NRCE Forum event.

The **Secretariat** provides assistance to the Leadership Team, setting meeting schedules and facilitating meetings, recording minutes, and communicating with the Leadership Team and NRCE Forum representatives on in-year progress.

The **Administrator** oversees the NRCE Forum budget on any project activities included in the annual plan.

4.3 Infrastructure

4.3.1 Staff

The staffing option selected includes a **Secretary** that provides meeting and communications support to the Leadership Team. Secretary services are provided to the NRCE Forum via a professional services contract administered by FORREX.

The option also includes an advisor, employed by the BC Ministry of Forests and Range. This position provides 70% of their time towards NRCE Forum business. The **Continuing Education Advisor** is a key resource primarily dedicated to the Natural Resources Continuous Learning Forum Leadership Team. The Continuing Education Advisor oversees all projects initiated by the NRCE Forum. This position supports the development of collaborative approaches and frameworks, initiates projects to develop and update training and delivery models, undertakes stakeholder consultations, develops a comprehensive communications plan, and provides advice as the ministry's training resource contact. This position also annually gathers, collates, and ranks information related to the training needs of resource professionals.

4.3.2 Communications and Information Management

FORREX will provide communications and information management services. It will provide and manage a website (<http://nrceforum.forrex.org>) and list services on behalf of the NRCE Forum. All documents and related material are made available and archived by FORREX on behalf of the NRCE Forum. They maintain a project management intranet site for use by the Secretariat and Leadership Team. Services are provided at cost to the NRCE Forum.

4.3.3 Finance

FORREX will provide financial administrative services for secretariat and co-operatively funded projects on behalf of the NRCE Forum. Quarterly and annual financial statements will be provided to the Leadership Team. A 10% administrative fee will be charged against all revenue managed on behalf of the NRCE Forum to cover financial administration charges.

4.4 Program

The NRCE Forum strategic goals and objectives can be achieved over time through a co-operatively defined and implemented program of work. Work can be developed and implemented on a volunteer basis (no funding support provided), co-operatively (with some funding support coming from the NRCE Forum), or directly via projects funded by the NRCE Forum. We propose that a combination of these strategies will be most effective at achieving the NRCE Forum goals.

4.4.1 Program Development

Program development costs can be the most costly and often the most risky. Economic risk can be limited by a well conducted and documented needs assessment and market analysis. In addition, seed funding can be provided to reduce a certain amount of risk to the developer. This model assumes that the provider sector will do the development.

The NRCE Forum funds a provincial needs assessment and market analysis at least once every 5 years. This includes a gap analysis (market needs against available resources). The NRCE Forum does not fund any development costs and relies on service providers and competition (supply and demand) to provide the products and services to the natural resource community. The NRCE Forum maintains an online catalogue of available continuing education (CE) products and services, updated annually.

4.4.2 Program Implementation

The NRCE Forum is designed to provide strategic direction, and evaluate and report on progress made by collaborating parties. The NRCE Forum will produce a strategic plan, gap analysis, annual plan, and progress report, as well as maintain an information portal. All other continuous learning products required to achieve the program objectives will be developed and delivered by collaborating parties in the continuing education community for natural resource practitioners. The parties will report on progress on an annual basis.

4.4.3 Program Evaluation

Effective evaluation is a key component of strategic and operational planning. The NRCE Forum will develop an evaluation plan, including the selection and monitoring of key performance criteria and related indicators.

A formative evaluation will be conducted in Year 1, followed by a mid-term (Year 3) and Year 5 evaluation. NRCE Forum collaborators will participate by reporting on their progress (activities and outputs) against these plans.

4.5 NRCE Forum Capacity Needs

Capacity Area	In Kind	Cash	Total
Governance			
Leadership Team	\$ 32 000		\$ 32 000
Secretary		\$ 20 000	\$ 20 000
Meetings	\$ 5 000	\$ 5 000	\$ 10 000
Information Management	\$ 4 800	\$ 4 800	\$ 9 600
Legal/Accounting	\$ 5 000		\$ 5 000
Subtotal Governance	\$ 46 800	\$ 29 800	\$ 76 600

Capacity Area	In Kind	Cash	Total
Infrastructure			
Staff	\$ 100 000		\$ 100 000
Public Website	\$ 4 800		\$ 4 800
Members Website		\$ 4 800	\$ 4 800
List Serv	\$ 4 800		\$ 4 800
Project Management Site ⁵	\$ 5 400		\$ 5 400
Project Management		\$ 9 600	\$ 9 600
Financial Administration		\$ 10 000 ⁶	\$ 10 000
Subtotal Capacity	\$ 115 000	\$ 24 400	\$ 139 400

Capacity Area	In Kind	Cash	Total
Program			
Needs Assessment/Gap Analysis	See Staff		
Online Catalogue Maintenance		\$ 5 000	\$ 5 000
Curriculum Development	\$ 500 000		\$ 500 000
Evaluation and Progress Report		\$ 10 000	\$ 10 000
Subtotal Program	\$ 500 000	\$ 15 000	\$ 525 000

⁵ 10 licenses @ \$45/month for 12 months

⁶ Assumes \$100 000 annual revenue estimate

5 Funding Mechanisms

Funding for the problem analysis and foundation for the NRCE Forum has been provided by the Forest Investment Account–Forest Science Program via the Provincial Extension Program⁷. This program also provided partial funding for educational product development and information management. Future funding to support the governance and NRCE Forum needs to be determined.

6 Summary

The Province of British Columbia continues to benefit from the development and use of natural resource assets. In doing so, the Province strives to be a world leader in natural resource management and environmental stewardship. The NRCE Forum will ensure that resource practitioners responsible for the planning and management of natural resources remain competent and achieve the highest standards in their areas of practices. Their employers and those regulating resources will therefore achieve their goals and ensure continued social, economic, and environmental benefits from the management and use of British Columbia's natural resources.

⁷ See Hollstedt, C. 2006. Provincial Forest Extension Program Strategic Plan 2005–2010. Executive Summary. <http://www.cortex.bc.ca/fia-fsp/d-comm-ex-EPACst-25Sep06.pdf>