

Project Report

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This report summarizes the results of a scoping exercise to determine the potential to expand the Provincial Ecosystem Restoration (ER) Program (see <http://www.for.gov.bc.ca/hra/Restoration/index.htm>) beyond the Vanderhoof District to the broader Omineca Region. Ecosystem restoration programs have been established in a number of Districts in the Southern Interior and, more recently, in the Vanderhoof District. The Vanderhoof ER program has been implementing treatments over the last few years and recently completed a strategic plan, which together with guidance from the Provincial ER program coordinator, Al Neal, served as impetus to evaluate whether expanding the ER program in the Northern Interior was merited, and how it might best be delivered.

LM Forest Resource Solutions Ltd was awarded a small contract in March, 2012 to undertake this evaluation. The objectives of the project were to:

- Identify potential stakeholders.
- Ascertain stakeholder interest and capacity to be involved in ecosystem restoration.
- Provide recommendations on the establishment of a Regional program.

A stakeholder list was created from contacts identified during the development of the Vanderhoof strategic plan, and from subsequent interviews with stakeholders in the Region. Individuals in the list were contacted and interviewed in person or by telephone by Larry McCulloch and/or John DeGagne over a two week period. Results of this interview process are summarized below.

List of Potential Stakeholders

An excel spreadsheet was produced (and submitted as a separate file) summarizing contact information for stakeholders by geographic centre (Omineca Region, Prince George, Vanderhoof, Ft. St. James, and MacKenzie). Information in the spreadsheet includes:

- Name
- Affiliation
- Phone number (landline)
- Cell number
- Email address
- Alternate contact
- Comments.

Forty-two people representing 28 different organizations were identified in the contact list not including stakeholders in Vanderhoof, who were contacted during the development of the strategic plan. Just over half of these (23) were interviewed. During the development of the strategic plan for Vanderhoof, about 20 people were contacted. It was not possible to interview everyone on the stakeholder list because of budget constraints and because people were away. The list of people contacted should, therefore, be viewed as a sample of potential stakeholders across a range of disciplines and geographic locations rather than a complete list.

Potential stakeholder agencies/organizations identified in the list included:

- The MoFLNRO Provincial Ecosystem Restoration Program

- The MoFLNRO Prince George Regional Resource Management Program
- The MoFLNRO Prince George Regional Fire Centre and District Fire Protection Staff
- MoFLNRO Stewardship Programs at the District level
- The MoFLNRO Prince George Regional Environment and Landbase Stewardship Program and District Biologists
- The MoFLNRO Prince George Regional Range Program and District Range Programs
- BC Parks
- First Nations Resource Management Departments
- UNBC Ecosystem Sciences Professors
- UNBC Aleza Lake Research Forest Scientists
- UNBC John Prince Research Forest Scientists
- The BC Hydro Peace Williston Fish and Wildlife Compensation Program
- The BC Wildlife Federation
- The BC Cattlemen's Association
- The BC and North Central Guide Outfitters Association
- The BC Trappers Association
- The Habitat Conservation Trust Foundation
- Ducks Unlimited
- The BC Invasive Plants Council
- The Union of BC Municipalities Wildfire Prevention Program
- Selected Forest Industry Companies
- Selected Mining Sector Companies
- Selected Guide Outfitters
- Selected Lodge and Recreation operators
- Selected forestry and biological sciences consulting firms
- Selected clubs such as the Naturalists

Interest In and Capacity To Deliver ER Programs

Past Experience

In the Vanderhoof District, ER was defined as managing the structure and function of vulnerable ecosystems to achieve a desired future condition that will sustain ecological function and service human socio-economic needs. An ecosystem is considered to be degraded or vulnerable when it is missing structural elements and ecological processes that are important for achieving a desired future condition (the target set of structural attributes considered by stakeholders to be necessary to maintain ecosystem function and provide forest products considered to be important). Stakeholders in Vanderhoof used three criteria to select restoration targets:

- ecosystem vulnerability
- the functional importance of the ecosystem, and
- the degree to which existing mechanisms/programs already address them.

Four types of ecosystems have been targeted to date: Douglas-fir stands, grasslands, wetlands, and berry producing areas. While the Vanderhoof ER Program may serve as a model for other Districts, it does not preclude other Omineca stakeholders from using different criteria or selecting different target ecosystems and activities. During the interview process, stakeholders were asked to describe the kinds of ER activities they had been doing in the past or were interested in, without trying to confine answers to the definitions or target ecosystems

used in the Vanderhoof program. Many of the stakeholders interviewed were already engaged in ER activities, or had an interest in, or direct mandate to undertake such activities. Some examples have been provided below.

BC Parks – Parks has conducted range burns on a periodic basis within a number of parks to improve wildlife habitat in the Omineca area.

The MoFLNRO Environmental Stewardship Program – Staff have assisted BC Parks in their wildlife management initiatives and also conduct wildlife habitat improvement burns outside parks within the Omineca.

The Habitat Conservation Trust Foundation – in 2012, HCTF is investing \$5.7 million dollars in projects that maintain and enhance fish and wildlife habitats to provide greater benefit for the people of BC from these resources. Their policy is to support the management of fish and wildlife which is above and beyond that required by government, aligning well with the criteria defined in the Vanderhoof program.

The BC Hydro Fish and Wildlife Habitat Compensation Program – Within the program area (roughly equivalent to the MacKenzie District), a number of projects have been carried out including such things as: fish and wildlife habitat enhancement, habitat and species monitoring, planning, inventory, and research.

UNBC – Researchers at UNBC have been working within the region including the Aleza Lake and John Prince Research Forests on a variety of projects pertaining to ecosystem function. They have an ongoing interest in such things as Douglas-fir ecosystems, paper birch ecosystems, mule deer winter range, white bark pine, the Wetbelt ICH and many areas of research relating to fish and wildlife habitat, forest management, and ecology.

The Cattlemen's Association – Have supported range burns for livestock and associated monitoring as well as monitoring of invasive plants and they have a program to produce environmental farm plans.

Ducks Unlimited – Have undertaken dozens of projects in the Omineca region, often in conjunction with private land owners or other partners, to restore wetlands and upland terrestrial vegetation, that could be important to waterfowl.

The Invasive Species Council of BC – In addition to research and outreach, the council, through its hotspots program, employs crews to help manage (control, remove or in some cases, contain) invasive plants. The program inventoried 20,500 ha and treated 1,538 ha in more than 270 communities across the province in the latest two year period.

The Union of BC Municipalities – Through its wildfire prevention program, UBCM supports the development of community wildfire protection plans, fuel management prescriptions, fuel management demonstration projects, and operational fuel treatments. Protection staff at the PG fire centre have worked with UBCM regarding permitting and safe and effective implementation. Many Douglas-fir and grassland areas are at the wildland/urban interface and, where restoration activities are anticipated in such areas, UBCM may be a partner organization.

Relative Priorities

Most stakeholders were not prepared during these initial interviews to fully describe their priorities in terms of target ecosystems. However, discussion commonly centered on three broad priorities:

- Reintroduction of fire in ecosystems to reduce fire hazard in interface areas.
- Reintroduction of fire in ecosystems that are naturally fire-maintained but have been degraded from years of fire suppression to create better forage opportunities by opening up the forest canopy, stimulating shrub re-sprouting, and improving grass production.
- Improving hydrological function and associated riparian habitat by re-establishing natural drainage patterns, removing or repairing culverts that are malfunctioning or impeding fish passage, addressing poorly designed stream crossings, restoring natural stream-side vegetation, managing forest cover levels in sensitive watersheds, better drainage control on selected wetlands, and other forms of hydrological restoration.

Specific ER project opportunities that were mentioned included:

- Enhancing Douglas-fir stands because they are becoming increasingly rare and are important for mule deer and elk winter range.
- Restoring/creating grasslands to provide forage for livestock and wild ungulates.
- Mitigation of conifer and shrub encroachment on grasslands.
- Improving berry and herb production in grizzly bear habitat.
- Encouraging hydrologic recovery with forest cover in constrained watersheds.
- Structure replacement along various road systems (see above).
- Reclaiming or rehabilitating secondary roads and landings by reestablishing trees and other vegetation.
- Whitebark pine climate change mitigation.
- Restoration of areas occupied by invasive plant species.
- Protecting rare ecosystems (or rare and endangered species).
- Improved classification and monitoring of rare ecosystems.
- Restoring streamside vegetation in areas damaged by livestock grazing.
- Climate mitigation in the ICH wetbelt.
- Determining the impact of mountain pine beetle on berry producing areas.
- Creating nesting sites on wetlands and possibly burning some wetlands to restore natural vegetation.
- Flow modeling on wetlands to identify avoidance strategies.
- In the north portions of the MacKenzie District, creating wildlife winter range and grazing areas for horses for guide outfitters.
- Burning to produce morels.
- Burning to remove barriers and stimulate ground lichen production in caribou habitat.

Funding and Staffing

Four types of stakeholder groups were identified:

1. those that provide funding support but participate in a limited way in planning and implementation (the MoFLRNO Provincial ER program, HCTF, Ducks Unlimited, UBCM, and other funders not contacted in the scoping exercise)
2. those that provide limited funding support but have the skill set and staff time available to assist with planning and implementation (BC MoFLRNO Protection and Stewardship programs, UNBC Forest Sciences Section and Research Forest staff and graduate students, BC Parks, First Nations Resource Management Departments, the Invasive Species Council of BC, the Grassland Conservation Council of BC, the Fish and Wildlife

Federation and Guide Outfitter and Trapper associations, and the Cattlemen's association)

3. those that provide funding and actively participate in planning and implementation (BC Hydro, and forest and mining sector companies).
4. individuals who have limited funding and time but want to be kept informed and participate in program decision making (lodge and tour operators and other individuals interested in or affected by forest resource management).

Not every organization fits perfectly into one of these categories but it is evident that any group of **partners in an Omineca ER program will be comprised of organizations with different capacities bringing either funding, technical expertise, human resources, or social currency to the table.**

Based on the interviews conducted during the course of this project, it appears that there is potential to generate sufficient funding and attract a core group of stakeholders to establish an Omineca ER Program. There are a number of provisos however, and how the program might be organized is an important consideration.

Recommendations

Geographic Scope

Within the group of potential stakeholders contacted, there was no opposition to the concept that an ER program could be expanded from Vanderhoof to the rest of the Omineca Region, although it was recognized that the focus of the program could vary in different geographic locations. It was thought that a regional program would be particularly advantageous if programs in the Districts were small and didn't have the critical mass (capital or human resources) to be self-sustaining at the District level. Many of the advantages of having a broader geographic scope identified in the Vanderhoof strategic plan, were reiterated by Omineca stakeholders, including:

- leveraging geographic size to generate more profile for the program, possibly attracting more funding.
- potentially hiring a regional program coordinator whose costs can be spread amongst three or four Districts rather than having individual coordinators in each District.
- acting as a fund raising body for all Districts thus avoiding competition between Districts for the same funding pots.
- developing and providing technical information that would benefit more than one District.
- providing a monitoring function for all Districts with corresponding efficiencies in scale.

Although it was originally envisioned that an expansion of the Vanderhoof program would be restricted to the Omineca Region, several stakeholders suggested that the program should be expanded to include the Northeast Region as well. The rationale for this assertion was that:

- there are large tracts in which winter range management is a priority and fire as a management tool is appropriate.
- cumulative impacts in the northeast are potentially higher, with potentially higher vulnerability, because of the additional footprint of the oil and gas sector.
- many of the advantages associated with broader geographic scope would still hold true with a program that included the Northeast Region.

Whether a particular geographic area is included under the umbrella of an ER program ultimately depends on the effort stakeholders are willing to put in, and the objectives and

constraints of funders. The scope of this project did not include evaluating the Northeast region and it is not possible, therefore, to comment on the interests of stakeholders in the area, or to be sure about the objectives of funders. It does appear, however, that there is considerable potential for eligible ER treatments, and there are funders such as the HCTF that do have a mandate and interest in funding restoration activities in the area.

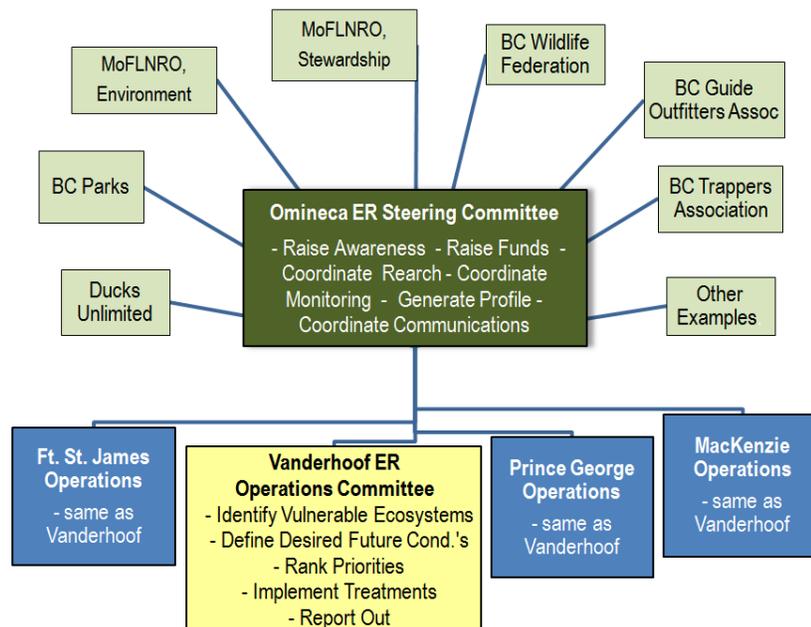
It is recommended that the Provincial MoFLNRO ER program support a pilot project to develop a Regional Program for the Omineca. One of the tasks during the pilot phase should be to undertake further analysis of the potential for expanding into the Northeast region.

Establishment of an Omineca ER program will be contingent upon all of the following:

- Seed funding from the Provincial ER program to support a coordinator position for a one year period.
- Formation of a Omineca steering committee of stakeholders with the mandate and authority to represent their constituents.
- Availability of agency staff to help ensure that the ER program is integrated with other government programming.
- Funding from stakeholders other than the BC government.

Governance Structure

There was broad agreement amongst stakeholders that the governance model proposed in the Vanderhoof ER strategic plan would be appropriate for a Regional ER program. In this model a regional steering committee comprised of key stakeholders raises awareness (including creation of a website) and funding for the program, identifies strategic allocation of funds based on proposals from Districts, coordinates research and monitoring, and reports out to stakeholders, funders, and agencies building profile for the program in collaboration with the Provincial ER program (see diagram). At the District level, an operations committee is formed and participants identify vulnerable ecosystems, determine desired future conditions, rank treatment priorities, identify and implement treatments, and report out on accomplishments.



During stakeholder interviews, a number of individuals, representing a range of stakeholders, expressed interest in potentially being part of an Omineca steering committee as follows:

MoFLNRO Stewardship Forester in Vanderhoof – John DeGagne
MoFLNRO Protection – Brent Bye
MoFLNRO Environmental Stewardship – Brady Nelles
MoFLNRO Range – Laura Blonski
Peace - Williston Fish and Wildlife Compensation Program – Dan Bouillon
Invasive Plant Council – Denise McLean or Amy Farella
Forest Industry Representative - Greg Yeoman, Canfor
Mining Industry Representative - Tim Bekhuys, New Gold (Vanderhoof)
Kaska Natural Resources Agency – Dave Crampton or Danny Case
Tsay Keh Dene – Patience Rakochy or Luke Gleeson
Tlazten – Kirby Johnnie
Finlay River Outfitters – Jordy McAuley
MoFLNRO, District representative - Sam Davis (Stewardship, MacKenzie)

Key to the success of this model is the employment of a coordinator on a full or part time basis to manage the program. This is an approach used in other ER programs in the Province and seems appropriate for the Omineca given the constraints in mandate and available time that most stakeholders face. With this approach, the program coordinator will, initially at least, need to act as a District resource as well as a Regional resource, sharing their time amongst Districts to help stakeholders implement programs at the District level. The role of a program coordinator would be to:

- Help Regional stakeholders develop a governance structure and operating policies, and establish a non-profit society.
- Attract funding (see the Vanderhoof Strategic plan for a list of potential funding sources).
- Develop a Regional business plan and a budget that incorporates the strategic direction and policy established by the steering committee.
- Develop website content.
- Help stakeholders in each District form Operations Committees.
- Help stakeholders in each District produce a five year plan and budget, and identify funding priorities.
- Manage the day-to-day affairs and activities of the Regional program in a safe and cost effective manner.
- Manage any staff or contractors that must be hired for Regional programming.
- Periodically report on accomplishments and issues.
- Attend steering committee meetings.

While the program coordinator would have a direct role in coordinating and implementing treatments, it is imperative that individual stakeholders and members of the society also be directly engaged in program activities. This may include, for example, taking a direct role in the implementation of restoration treatments through in-kind donations or by providing funding to employ contractors.

How the ER program interfaces with government agencies is also critical to the success of the program. A society formed to manage ecosystem restoration will not have a legal mandate to undertake activities and so ecosystem restoration activities will need to be integrated with government programming and sanctioned by permitting authorities. Ideally, ER activities would be supplemental to government programs that might be under-resourced. To be successful, the program must reflect government priorities and serve as a model of leadership in areas such as

habitat enhancement, conservation, cumulative impacts, monitoring, First Nations co-management, and the provision of non-timber resources. In particular the Government Actions Regulation (which provides the criteria and processes for the creation of localized areas that require special management of certain forest values), the Forest and Range Evaluation Program, the Ministry of Environment's Conservation Framework, and the MoFLRNO stewardship program need to be considered and incorporated into the ER program where appropriate.

There may also be an opportunity to assist with core government activities. For example, it was proposed during the interviews, that an ER program could act as a central repository for all **prescribed** fire requests in the Region. The concept was that the steering committee would collate requests from all agencies and stakeholders and create 5-10 year Prescribed Fire plans with shelf-ready projects available for a time when manpower, funding, and weather conditions provide a window for implementation. Wildfire Management Branch (WMB) and protection staff at the Regional and District level would play a supportive role in permitting and treatment implementation. This type of programming allows for the integration of different agencies and the public (for example, Protection staff are interested in hazard reduction, the MoE is interested in habitat restoration, First Nations might be interested in berry patch maintenance, ranchers are interested in range, BC Parks are interested in ecosystem maintenance, and Guide Outfitters are interested in a variety of habitat improvement projects). **If a regional ER committee is struck, it is recommended that this type of partnership be explored with the Regional Management Team to determine if such a model would be effective and what types of policy, staffing, and funding would be required to support it.**

A similar approach may also be appropriate for delivering BC Hydro's Fish and Wildlife Compensation Program for the Peace Williston. The Fish and Wildlife Compensation Program in the Peace region is a joint initiative of BC Hydro, the BC Ministry of Environment, and Fisheries and Oceans Canada. In the past, the program was governed by a senior policy committee, a steering committee, and two technical committees with a program administrator and a small team of biologists managing the operational side. At its inception, a fund was established from which annual earnings of about \$1 million were used to maintain the program in perpetuity. While funding continues, the program structure was recently dissolved and the program is now in a transition period while a new strategic plan is being developed. Although the concept was not discussed with stakeholders, the apparent overlap in objectives and geographic focus between the Omineca Ecosystem Restoration program and the Fish and Wildlife Compensation Program seems to indicate that there may be a role for the ER program in acting as a delivery arm for the FW Compensation program. The details of setting strategic priorities and allocating funding would need to be worked out with stakeholders but it is clear that such an approach would provide an overall level of efficacy that would be difficult to achieve with two separate organizations trying to achieve the same objectives. **It is recommended that John DeGagne, MoFLNRO, Stewardship Forester, Vanderhoof, and Norm Bilodeau, Director of Resource Management, MoFLNRO, Prince George meet with Dan Bouillon from BC Hydro to explore the potential for such an arrangement.**

Finally, in the event that a Regional ER program is established, it will be necessary for the steering committee and program coordinator to identify and consider ancillary programs related to the management of forest resources. Some examples include the Nechako Environmental Watershed Stewardship Society and the Nechako Environmental Enhancement Fund, the Public Advisory Groups (PAG) that many companies use in their SFM (sustainable forest

management) planning, First Nations MoUs with various licensees and agencies, other First Nations committees such as the Omineca Regional Wildlife Committee (with the Tlatzen, Necosli, Kaska, and MoE), the Union of BC Municipalities wildfire prevention program, or mining sector environmental stewardship programs. It is important to understand how organizations with different mandates might be addressing ecosystem restoration so that opportunities for partnership are identified, duplication of effort is avoided, available information is identified, and perhaps most importantly, the limited capacity of volunteers, many of whom are on multiple committees, is identified and volunteer “burn-out” is avoided.

Funding

The model described above is premised on seed funding being made available from one or more government agencies and possibly, other funding organizations. It is expected that some of the partner organizations on the steering committee will contribute operating capital on a year over year basis but that additional funding will be needed from external sources. The primary responsibility for attracting funding from external sources will fall on the program coordinator. As noted above, a list of potential funding sources is available in the Vanderhoof strategic plan.

In the first year of the program fund raising will be a significant component of the coordinators job and much of the funding will need to be ear marked for developing organizational capacity. Some project work will also need to be done to test program systems, build credibility with stakeholders, and build profile with potential funders. Projects in the first year of operation will need to be relatively accessible and easy to implement and monitor (the low hanging fruit) because of limited resources being available.

It is recommended that the Provincial ER program provide the initial capital to kick start the Omineca ER Program. The program coordinator will need to leverage this funding to obtain the funds necessary to implement operational aspects of the program in the first year and, in subsequent years, it is expected that a combination of fund raising efforts by the steering committee and the coordinator will be required to ensure the organization is economically sustainable. There may be some opportunity in the future as well for the program to generate some capital from operations such as logging. **It is not expected that the program will be funded from Prince George Region’s MoFLNRO core funding nor that there is necessarily a direct Regional reporting requirement.**

In summary it appears that there is a need for ecosystem restoration treatments in the Omineca Region beyond those identified in the Vanderhoof strategic plan and that there is substantial interest from a spectrum of stakeholders. A number of funding sources have been identified and interviews with some of the funders indicate that such a program is well matched to their funding criteria. It also appears that the program structure being used in the Vanderhoof District may be an appropriate model for a broader Regional initiative. **It is recommended, therefore, that the Ministry of Forests, Lands, and Natural Resource Operations consider supporting the establishment of the Omineca Regional Ecosystem Restoration Program.**

Appendix I - Notes From Interviews With Potential Stakeholders

- Submitted under separate cover.

Appendix II -Stakeholder Contact List

- Submitted under separate cover.