

108 Greenbelt Walker Valley Grassland Management Plan Proposal

Submitted to: Darron Campbell, Manager of Community Services
Cariboo Regional District

Submitted by: Iverson & MacKenzie Biological Consulting Ltd.
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Introduction

Iverson & MacKenzie Biological Consulting Ltd. (IMBC) is pleased to submit this proposal to prepare a Grassland Management Plan for the 108 Greenbelt Walker Valley. IMBC has extensive experience in all aspects of grassland management in the grasslands of the Cariboo-Chilcotin. The principals of IMBC are Kristi Iverson, R.P.Bio. and Ken MacKenzie, R.P.Bio. Relevant projects include grassland monitoring and red- and blue-listed species assessments for Churn Creek Protected Area, Edge Hills Provincial Park, and Talking Mountain Ranch, development of a fire management plan for the Churn Creek Protected Area, a fire history and historical stand structure study of local lodgepole pine and Douglas-fir forests, and assistance in the development of a grassland monitoring method for the Grasslands Conservation Council of British Columbia (GCC).

For a more complete list of projects and experience please see attached CVs. All work for this project would be completed by the principals of our company ensuring that qualified and experienced personnel are involved in all aspects of the project.

Proposed Methods

Prior to field work, a list of wildlife species and invasive plant species to be evaluated will be developed. The wildlife list will include red- and blue-listed species known or suspected to occur in the area and any priority species of the 108 Greenbelt Commission and Ducks Unlimited. The invasive plant species list will include all species on the Cariboo-Chilcotin-Coast Invasive Plant Committee priority list and all species for which there are legal requirements for control under the British Columbia Weed Control Act or the Forests and Range Practices Act.

The field work portion of the project will be the most time consuming to ensure that the entire study area is well examined. Field work will include classification and mapping of all grassland and encroached grasslands and the determination of seral stage for these areas, establishment of grassland monitoring plots and photo points, locating and evaluating important wildlife habitats, and locating and describing invasive plant sites.

A minimum of six permanent grassland monitoring plots will be established using the monitoring methods of the Grasslands Conservation Council of British Columbia (GCC). The GCC method uses simple score sheets to evaluate the plant community composition, plant community structure, nutrient and hydrologic cycles, site stability, and invasive plants. The number of plots established will be determined in the field once the range of grassland types and conditions have been determined. The GCC plots are designed to be carried out by non-technical personnel but are effective at assessing current grassland condition and tracking of changes in grassland conditions over time. This will allow greater flexibility for future assessments than more rigorous scientific plot establishment. Training in implementing the Grassland Assessment Manual can be arranged with the GCC.

Photographs will be taken at each plot both as a visual record of the grassland conditions at the time of the assessment and to help relocate plots for subsequent measurements. Each plot will be marked with several steel pins to allow easier re-location of assessment plots and photo points. In addition to the GCC method, additional data will be collected on the percent cover of dominant, indicator, and non-native plant species at the site for a more rigorous examination of grassland conditions. This data can be used to determine the ecosystem (site series) and seral condition of the grassland using the draft grassland classification created as part of the Biogeoclimatic Ecosystem Classification system of the Ministry of Forests and Range.

All invasive plant sites will be recorded in the on-line Ministry of Forests and Range Invasive Alien Plant Program (IAPP). The IAPP is designed to act as a repository for all invasive plant sites and facilitates tracking infestation status and management outcomes. Management recommendations for all invasive plants located will be given.

Forested sites within the study area will be assessed for species composition, age distributions, density, evidence of historical fire activity and probable historical stand structure. Areas where trees are encroaching onto the grasslands will be mapped. These findings will be used to make recommendations on forest management and prescribed fire in the area.

Deliverables

A draft report will be produced for review by the 108 Greenbelt Commission and associated technical experts. The report will discuss the grassland ecosystems in the Walker Valley area, the seral stage of these grasslands, the condition and management recommendations for encroached grasslands and forested areas in the study area, wildlife habitats noted with management recommendations for maintenance or improvement, and invasive plant sites with recommendations for management. After consulting with regional experts, the grazing regime will be discussed with a range of options given for different grassland and wetland objectives. The range of options will vary with the risk to grassland and wetland condition, wildlife habitat and spread of invasive plants. In addition to the report the following products will be completed and provided with the report:

- a. Map of grassland types with seral stages, in .shp and .jpeg formats,
- b. Map of encroached grasslands,
- c. Maps of invasive plant sites, by species,
- d. Maps of wildlife species habitat areas, for all evaluated species,
- e. Map of monitoring plot locations,
- f. Completed assessment forms for each GCC monitoring plot, and
- g. Digital photographs of invasive plant sites, wildlife habitat area, monitoring plots and representative grassland types.
- h. Presentation of final results to the 108 Greenbelt Commission.

Budget and Timelines

Task	Time	Approximate Dates	Cost
Wildlife Species Accounts	0.5 day	May	\$200.00
Field work	4 days	June-July	\$1600.00
Mapping	3 days	July	\$1200.00
Draft Report	3 days	August	\$1200.00
Final Report & Presentation	2 days	September	\$800.00
Total	12.5 days		\$5,000.00

This budget includes all mileage and expenses for the completion of the project. Reports, maps and photos will be produced and distributed in digital form. We will require TRIM base maps, orthophotos, digital files for fencing and known noxious plant locations to be supplied by the Cariboo Regional District or one of its partners.

References:

Ray Coupé – Ministry of Forests, Research Associate Ecologist, Southern Interior Forest Region, Williams Lake, 1-250-398-4717

Dennis Lloyd – Ministry of Forests, Research Ecologist, Southern Interior Forest Region, Kamloops, 1-250-828-4129

Bruno Delesalle – Grasslands Conservation Council of British Columbia, Executive Director, Kamloops, 1-250-374-5787