October 6 @ 12: Wildfire Risk Reduction Pilot Project

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The British Columbia Cattlemen's Association has partnered with the Province of British Columbia to develop a pilot program with the intent to reduce wildfire risk in BC's wildland/urban interface by managing fuel with targeted grazing, while maintaining ecological and multiple use values.

During the 2017 and 2018 fire seasons the value of agricultural practices, notably grazing, was evident in changing fire behaviour by helping slow, turn, or stop fires from moving across the landscape. In this pilot program, targeted cattle grazing will be used to reduce fine fuel loads and subsequently wildfire risk and intensities adjacent to communities, utilities, and transportation corridors.

Most fuel management projects target the removal of trees, decreasing the number of trees per hectare, changing species, and/or pruning/removing understory. A by-product of these treatments is increased herbaceous material, representing a volatile and easily ignited fuel type.

The project includes several monitoring components to assess the impact of grazing on fine fuel load, plant communities, and ecological function.

Short-term monitoring is composed of two main components **intensive** and **extensive** monitoring. **Intensive** monitoring is quantitative monitoring that occurs on small randomly selected areas and provides data at a level that can be used for statistical inferences and with enough power to detect differences due to targeted grazing. Intensive monitoring occurs after grazing is completed for the season. Sites will be stratified, and intensive sampling will occur in a subset of the area. Seventeen primary variables have been identified as most relevant to the targeted grazing pilots currently under investigation. These variables will be discussed and presented

Extensive monitoring is intended to have broader coverage of the pilot site and is completed more frequently than intensive monitoring. Extensive monitoring can provide alerts to unanticipated benefits and problems and so is conducted every two weeks while grazing is occurring. The key monitoring element is level of grazing use assessed by stubble height. Results of extensive monitoring are communicated to project managers every two weeks so that the information can be used for highly responsive adaptive management purposes.

Four sites were established in 2020, two between Peachland and Summerland, and two in Cranbrook. Additional sites will be added in future years in Merritt, Williams Lake, and the Peace region.

Preliminary data comparing grazed and non-grazed controls shows a lack of difference in total biomass, but significant differences in forb biomass. Grass heights show up to 15.2% use of grass species in grazed vs. non-grazed controls. Cattle manure and ungulate pellet group analysis reflects wildlife vs. livestock use on these study sites, and data related to ungulate grazing use was obtained on one intensively monitored site that did not receive livestock grazing pressure in 2020.