The Cumulative Effects of Overlapping Land Uses on Ecosystem based Tourism and Recreation in Alberta’s Bow River Watershed.

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The watershed of the Upper Bow River in Alberta, Canada, is an internationally recognized icon of natural beauty and lies upstream of the burgeoning metropolis of Calgary. The Bow River watershed possesses an exceptional abundance of natural resources, including forests, grasslands, rivers, diverse flora and fauna, and majestic scenery. During the past several decades, a rapid increase in intensity of overlapping land-uses has occurred within the watershed, as settlement, rural residential, croplands, forestry, livestock grazing, oil and gas extraction, hydro-electrical, tourism, and recreation have all grown to satisfy an expanding human population and increasing regional, national, and international demand for renewable and non-renewable resources.

Alberta boasts a tourism sector that is conservatively estimated at ~$5.5 Billion annually. Since this value does not incorporate direct and indirect expenditures of non-tourism recreation, the combined economic contributions of the recreation and tourism industry is significantly greater. Within the province, there is no region that is better known or receives more tourism or recreational pressure than the Bow River watershed hosting Banff National Park.

Based on the methodology adopted by this study, the current recreational value of this landscape is estimated at ~$1.35 B annually. Unfortunately, the recreational value of this region has degraded during the past century and will continue, if current policies persist, to diminish incrementally during future decades. Our analyses suggest that the recreational/tourism potential of this landscape is declining at a rate of ~$2M/yr under a “business as usual” scenario, and that ~50% of this decline in value can be mitigated through the adoption of a series of “best management practices” that apply to forestry, residential, and agriculture.

This presentation will describe the objectives, methodology, and findings of a landscape simulation project intended to quantify temporal changes in key forms of natural capital, including that of the tourism and recreation sector.