

Manitoba Envirothon 2013
Provincial Orals – International Peace Gardens
Sustainable Rangeland Management

The community of Sibley is located within the Boreal Transition Ecoregion of Manitoba. You will recall from your *Theme Resource Guide* that rangelands are made up of many ecological communities (wetlands, riparian zones, upland forest and upland grassland), and that they interact with one another via the movement of resources (water, air, energy, nutrients) and resource users (livestock, wildlife, humans).

The above characteristics are true of the Sibley area, where rivers, streams, lakes, ponds and other wetlands provide habitat for recreationally sought after large bodied fish such as walleye, northern pike, yellow perch and rock bass and also small bodied fish such as creek chub, fathead minnows, central mudminnows and brook stickleback.

Forest- and grass-dominated rangeland communities provide food and shelter to a wide variety of wildlife such as wolves, white-tailed deer, moose, elk, black bears, coyotes, snowshoe hare as well as waterfowl, grouse, swans and owls. In this area animals and fire have played and continue to play an important role in the development of present-day vegetation.

The rolling hills around Sibley are covered in a forest of primarily deciduous trees. The predominant tree, trembling aspen, is mixed with balsam poplar, green ash, birch, Manitoba maple, elm and bur oak. Shrubs like hazel, chokecherry, saskatoon, nannyberry, dogwood, highbush cranberry and pincherry are found in the forest understory. Many of these, and wild plum trees, provide fragrant blossoms in spring and the delicious fruit throughout the summer months for berry pickers and animals alike. Species of willow, including diamond willow, are common in moist areas.

Near Sibley, a number of public and private parcels containing mixed plant community types were recently put up for lease or sale, and they form a contiguous block of rangeland. Livestock producers around Sibley are interested in cooperating to form a community pasture. Their intents are to use the land for economic gain while conserving its ecological integrity. The municipality and other local interest groups and stakeholders have some concerns about the idea of this new community pasture. Parcels of the land have been previously used for recreation, grazing, traditional uses, tree harvest, gravel extraction, and/or protection of natural ecological services to the local community and wildlife. Hunters also use this region to hunt for both white-tailed deer and waterfowl and part of the area serves as a very important habitat for migratory birds.

The livestock producers want to present a sustainable rangeland management plan for the use of these lands for cattle and sheep production. Your team has been hired as consultants to help them develop a management plan that, among other things, attempts to satisfy all of the stakeholders in the region while ensuring conservation of the local ecology. Your plan must include the following specific considerations:

- i. An inventory of the key resources in the proposed rangeland area and indication of their condition.
- ii. A plan for managing the rangeland, including the number of sheep and cattle that could be kept, the practices to be used, and the infrastructure (e.g., livestock water sources and fences) that needs to be developed in order to support the plan.
- iii. Indication of how the plan could address concerns such as land use conflicts, the health of riparian areas, preservation of biodiversity, wildlife interaction, soil quality, and predator control.
- iv. Your strategy for the assessment and monitoring of the rangeland.
- v. Your proposal for how the livestock producers should involve the interest groups and stakeholders who would be affected by the rangeland management plan, including:
 - First Nations
 - Recreational users such as bird watchers and hikers
 - Local fishers, trappers and hunters
 - Industrial interests
 - Municipal, provincial and federal governments
 - NGO's and ENGOs (non-government and environmental non-government) such as Nature Conservancy, Ducks Unlimited and the Canadian Parks and Wilderness Association