

## Weed Management Conflict

A parcel of land one square mile (640 acres) is being sold by a private land owner. This land infested with both knapweed and leafy spurge. This area was used by an irresponsible rancher who let the cows eat all the native plants, and make room for the weeds. The area is adjacent to Forest Service land on two sides and about eight miles from town. Deer, elk, and many other animals used to use the land, but have died or been forced to move to other areas since the weeds have taken over and reduced their food sources. There is a year-round stream running through the west half of the property, but it has less water than it used to because the weeds use more water than the native plants.

The current land owner wants to sell the land to someone who will work to control the weeds and has decided to let the City Commissioners decide who would be the best new owners.

The groups involved are:

A **Rancher** who wants to use the land to graze cattle. The rancher promises not to overgraze the land and to rotate the cattle to best control the leafy spurge and spotted knapweed. The rancher will also use herbicides (chemicals that kill plants) to kill the weeds.

**Recreationists** who want to set up a tire and vehicle check point to make sure weed seeds will not be carried in on vehicles from other places. They also want interpretive signs to inform the public of the weed problem. Finally, the Recreationists would mandate all hay brought into the area with horse packers be certified weed-free hay.

The **Weed District** wants the city to buy the land and intensively manage it for weeds using a combination of herbicides, biological controls (insects that eat the plant), and manual control (picking weeds by hand).

An **Organic Bison Rancher** wants to use the land to raise bison for meat. Herbicides are unacceptable to the Bison Rancher because the animals could not be sold as organic if the food they eat is sprayed with chemicals. The Bison Rancher prefers the release of root moths and root beetles to control the knapweed and root and foliage feeding beetles for the leafy spurge.

A **Coalition of Environmental Groups** wants to see the land off-limits to humans (except for weed pullers) until the weeds are gone. They propose

biological controls and vigorous hand-picking. Their main concern is restoring habitat for the plants and animals living in the area.

**Concerned Citizens** from the nearby town want to be sure the weeds do not spread onto their private land and into the Forest Service areas where they recreate, hunt, and gather berries and mushrooms.

Each group will have a maximum of three minutes to present their plan for weed management to the City Commissioners. The Commissioners will then make their recommendation to the current land owners.

## Role Descriptions

(Give each group their description. It is up to the group whether or not they share this information to the rest of the class.)

You are a **Rancher** who wants to use the land to graze cattle. Ranching is a way of life here, and you hate to be pushed out by newcomers with new ideas about managing the land. Your family has been ranching in the area for one hundred years and you know how to take care of the land, while providing food for the country. Your intention is to reseed the land with native plants for the first two years while spraying the weeds with herbicides. When there are fewer weeds you promise not to overgraze the land and to rotate the cattle to best control the leafy spurge and spotted knapweed. You have read that cows will eat one and two year old knapweed plants and leafy spurge, so you plan to have your cows graze the new knapweed and spurge early in the spring (before native plants begin to grow) and in the late summer or fall (when native plants have died for the year).

You are a group of **Recreationists** who enjoy hiking, horse packing, fishing, riding ATVs and snowmobiles, and cross-country skiing. Although you have disagreed with each other in the past on how land should be managed, you have come together to make sure this land is not put off-limits to you. You believe that the City should manage the land and leave it open for recreation. You know that many weed seeds are transported to new areas by tires, hiking boots, and in horse feed. In fact, vehicles driven through several feet of knapweed can pick up 2,000 seeds. And ten miles later 10% of those seeds may still be attached to the vehicle. You want to set up a vehicle check point and cleaning station to make sure weed seeds will not be carried in on vehicles from other places. Vehicles will also stop here on the way out, so the weeds will not be transported out of the area. You also want interpretive signs to inform the public of the weed problem because you know education is the first step to finding a solution. Finally, you would mandate all hay brought into the area with horse packers be certified weed-free hay.

You are the local **Weed District** and your job is to control all the weeds in the county. This area is of special concern to you because it is infested with weeds, but the surrounding lands aren't. You want the city to buy the land and intensively manage it for weeds using a combination of herbicides, biological controls (insects that eat the plant), and manual control (picking weeds by hand).

Weeds reduce food and shelter for wildlife, as well as decreasing cattle grazing capacity by 65-90%. You know that any one type of weed removal hasn't worked by itself, so you want to do everything you can to eradicate the problem. If the weeds aren't controlled quickly, none of the other groups will be able to use the land for their purposes anyway.

You are a very rich **Organic Bison Rancher** who wants to use the land to raise bison for meat. Herbicides are unacceptable to you because the animals could not be sold as organic if the food they eat is sprayed with chemicals. You want to manage the land, without interference from the government. Since you have so much money, you believe you can handle the weed problem alone. You are very motivated to get rid of the weeds because your bison will not eat them and you want as much food available for the animals as possible. Bison do less damage to streams and land than cattle do, so you feel the habitat will be easier to restore with bison than cows. You have also read that rotating cows really doesn't help get rid of weeds as much as some people think. You know of five different flea beetles (genus *Aphthona*) that eat the roots of leafy spurge, and one beetle (genus *Oberea*) that eats the stems. You know of eight flies, moths, and weevils that eat the flower heads of knapweed and six moths, weevils, beetles, and nematodes that eat its root. Every year you will buy more of these biological controls and release them on the land.

You are a **Coalition of Environmental Groups** that wants to see the land off-limits to humans (except for weed pullers) until the weeds are gone. Your main concern is restoring habitat for the plants and animals living in the area. Your group knows that weeds decrease wildlife habitat, reduce food, and reduce hiding places for animals. Areas dominated by leafy spurge receive three times less use by deer and four times less use by bison. You also know that weeds change the way water flows in an area and you are concerned that the stream crossing the property may dry up. There is no other water source on the property. If the weeds are not killed many native species will be lost. You propose biological controls and vigorous hand-picking. Chemicals may harm other plants and animals that aren't being targeted, and they could get into the water and affect the people living in the nearby town. After the weeds are gone you would be willing to open the land to hiking, fishing, and hunting, but only under strict control.

You are a group of **Concerned Citizens** from the nearby town that want to be sure the weeds do not spread onto your private land and into the Forest Service areas where you recreate, hunt, and gather berries and mushrooms. You need to