

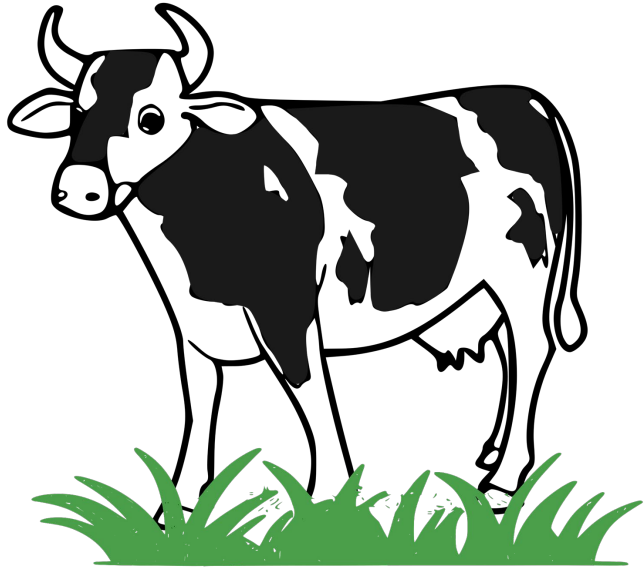


# Sage Grouse Solution

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# The Wilson Ranch



The Wilson Ranch is a home to Sage Grouse and many other animals. This includes native species like the Sage Grouse and other animals such as livestock that have been on the ranch since before anyone can remember. Nowadays there is a mine that is located just east of a busy highway that runs through the ranch. New development like the highway and the mine can be a danger to the native Sage Grouse and by doing so it can threaten the whole ecosystem. Some parts of the ranch are even losing sage brush which is vital for Sage Grouse.

# The Sage Grouse

The Sage grouse is a medium sized bird known for its large air sacs on the males chest. The males use these sacs in a “dance” to attract females. They perform these “dances” on raised clear areas of ground called LEKs. These females will chose a healthy male to mate then go off to have chicks, they usually have 5-11 eggs in a clutch. Many males will often mate with many females instead of just one. The female then raises those chicks until they are old enough to survive in the barren landscape they call home. The sage grouse only live for about 2 years so reproducing quickly is essential.



# Our Goal

The goal of our group is to keep the numbers of Sage Grouse in Eastern Montana strong. We believe that we can accomplish this by providing them with more suitable habitat and safety from the harmful effects of human encroachment. Mrs. Wilson's Ranch would provide a perfect opportunity to begin to protect this threatened species.



# Seasonal Habitat

**Fall:** In the fall the hunting season has started and the grouse normal life is disrupted.

**Winter:** The ranch has received a good deal of snow that has started to melt and is making the landscape muddy.

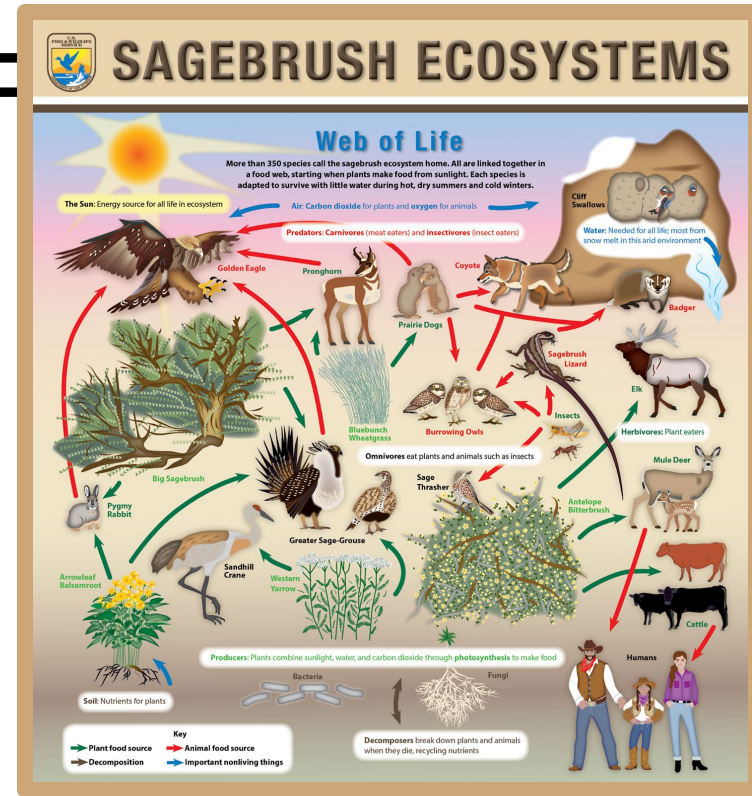
**Spring:** The grouse are beginning to mate, and some photographers are disturbing them

**Summer:** The grouse are raising their new chicks and are moving around quite a bit.



# Sage Grouse In The F

The Sage Grouse is a food source for many of the animals in the sagebrush ecosystem. As it is a source of food for so many it must repopulate quite quickly to keep its numbers strong. To find enough food for her chicks the mother must move around to different feeding areas teaching the chick how to get food. The grouse rely a lot on the sage and bugs for survival and if food isn't abundant they could leave a hole in the food web, causing a collapse.



# Sage Grouse Needs

Sage Grouse have very specific needs and rely very heavily on sage brush to survive. The sage provides them food, shelter, nesting areas, and even LEKs (mating areas). The sage is essential to the birds survival and chances of reproducing, without it the sage grouse would go extinct.



# Seasonal Needs

In the spring, after mating the Sage Grouse looks for habitats tall and protective sagebrush. As they raise their young the grouse need nourishing food and grasses. In the summer the mothers need the protection of the sage growth to protect her from crows, eagles/falcons, and coyotes, but she has to risk a journey with her young to get to the wetlands where her chicks will get some needed nourishment. In the fall the Sage Grouse move to higher ridges in search of some remaining food. Finally in the winter the Sage Grouse move to the protected sides of slopes in to find tall strong sagebrush that gives them protection from the snow and windy conditions.

# Current Sage Grouse Management T

Scientists are tracking and using GPS to pinpoint locations of the grouse throughout the year. They use this information to alert ranchers of their whereabouts and where to avoid livestock grazing, mowing, or other harmful activities. By studying the Sage Grouse, scientists are learning more about their needs and lifestyle which will help inform them on what to do to regain grouse numbers.

Wildlife management workers are also trying to eradicate invasive species such as cheatgrass that catches fire easily and burns great areas of sagebrush. They also work to create sagebrush areas for the grouse.

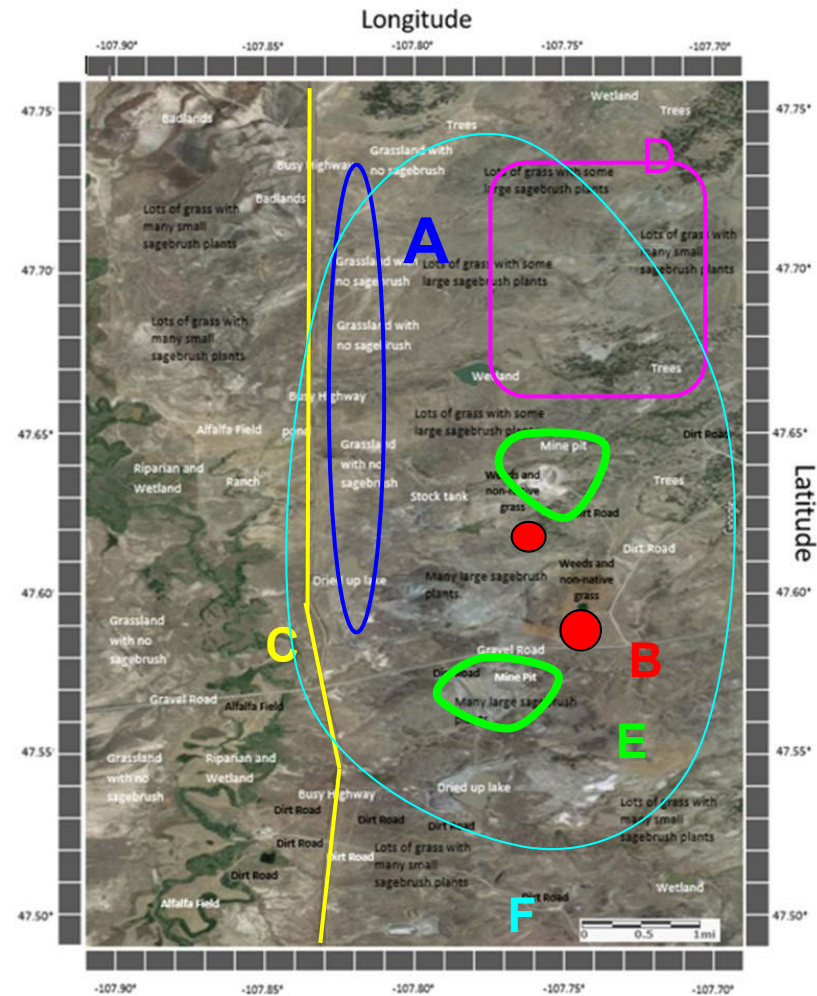
# Where Do They Fit In The Ec

The Sage Grouse is considered an “Umbrellas Species”. This means that these species health and survival indirectly affects the well being and status of the entire ecosystem around them. When the Sage Grouse are thriving that means that the other species are probably doing pretty well. So by helping the Sage Grouse we can protect the environment around them. Also the Sage Grouse is a symbol of the western plains. To lose it would be a like losing the wild buffalo and their ecosystem.



# Threats to the Sage

- A. Lack of Sagebrush:** The lack of sagebrush leaves the grouse without protection or food.
- B. Invasive Plant Species:** The invasive species may cause wildfires or kill sagebrush.
- C. Busy Highway:** Grouse could get hit crossing the road.
- D. Predators:** Animals feed off the grouse and their young.
- E. The Mine Pit:** The mine pit destroys habitat and disturbs the grouse.
- F. Human Hunting:** Humans hunt grouse for sport, killing and disturbing habitat.



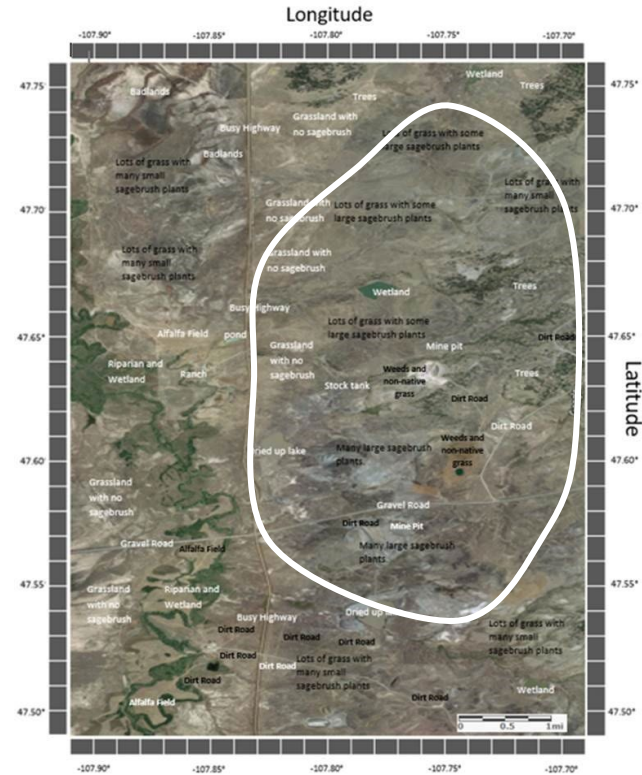
# How We Can Help

Sage grouse need the sage to survive, as it provides them with shelter and food. It is important to conserve the sage for the future generations of the grouse. By using the research gathered by FWD we can find the areas the Sage Grouse are most commonly found and make sure the sage is healthy, and there to stay. We can also find areas that are lacking in sage brush and make an effort to plant more of the bu



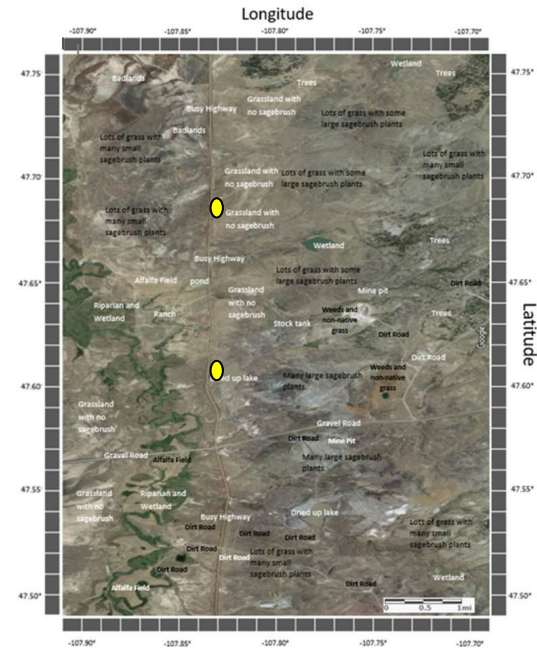
# Action Plan: Phase 1

Our plan is to start by devoting land to wildlife. We can start by placing an area of the ranch to be unaffected and away from all human life, including cows and loud mining trucks. We will select an area (see white area on map) of the ranch that the grouse are most frequently found with sources of food shelter and LEKs. If there are areas lacking brush; (for example on the east side of the busy highway) we can start to replant enough sage to maintain a healthy level of brush. We would also send teams in to remove invasive species like cheat grass during seasons when Sage Grouse are in different areas. Also we need to make sure the grouse have access to feeding areas like wetlands by maintaining the wetland currently in the protected area.



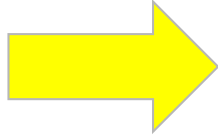
# Action Plan: Phase 2

Once this is done we will devote some time to watching the grouse and finding the most traveled routes they take to get to the essential LEKs, food, and shelter. If any of the routes put them in danger of crossing the road we can install a grouse crossing sign to let drivers know about the birds. We can also put slower speed limit signs down in parts of the road that grouse are more frequent (see yellow points on map). Finally we will monitor the birds and make changes to the area as we see fit.



# Benefits of Plan

This plan would be beneficial to Mrs. Wilson as she would benefit financially through a conservation easement. Even more important, she would be helping to save a rare and important ecosystem. On top of that, she would still be able to have her ranch that she could pass down to future generations, and the larger land surrounding her would be brought back to its native beauty.



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