



Managing Utah Prairie Dogs on Private Lands

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Introduction

The Utah prairie dog (*Cynomys parvidens*) is one of three species of prairie dog occurring in Utah. The Utah prairie dog only occurs in eight counties in southern Utah, making it native only to Utah. Historically, Utah prairie dog burrowing and foraging have conflicted with human activities such as farming and development. Because of concerns of declining populations, the U.S. Fish and Wildlife Service (USFWS) listed Utah prairie dogs an endangered species in 1973 under the Endangered Species Act (ESA). In 1984, because of increasing populations, the listing was downgraded from endangered.

Protection of the Utah prairie dog has been contentious because most of the animals live on private lands. Recently, the Utah prairie dog recovery plan and management strategies have been changed to recognize the role of private lands in the species recovery. Because Utah prairie dogs are listed and an ESA threatened species, any permanent harm to or removal of their



habitat or direct harm to the individual (considered “take”) is illegal unless specially permitted via consultation with the U.S. Fish and Wildlife Service (Arha & Thompson, 2011). However, a court ruling in 2014 determined that Utah Prairie dogs located on non-federal lands will be managed by the state of Utah rather than the U.S. Fish and Wildlife Service.

Utah Prairie Dogs and Human Conflicts

Human Health

The predominant human health issue concerning Utah prairie dogs is plague. Plague is a disease transmitted by a flea bite. It is lethal to Utah prairie dogs, but in humans it is treatable by modern medicine. Interacting with a prairie dog colony during a plague outbreak can increase a person’s risk of contracting plague.

However, because Utah prairie dogs die quickly once they contract plague, which limits the length of an outbreak, and the state of Utah regularly applies insecticides to Utah prairie dog colonies to reduce the risk of plague, human health risk is fairly low. Furthermore, most Utah prairie dogs live in remote and rural areas, where human interaction with them is low. In areas where Utah prairie dogs exist in close proximity to urban centers, the risk of exposure might be much higher.

Agriculture

Prairie dogs require soil that is easy to dig, to build and support a burrow system. In Utah, these same soils also are important for agriculture. When farmers grow wheat, alfalfa, other irrigated crops,

Utah prairie dogs are attracted to these areas for the tilled soil, and the green plants. Utah prairie dogs' burrowing activity in areas of human development can cause additional conflicts. Burrows and their holes damage farm equipment and eliminate or limit potential land uses for certain outdoor recreation activities (Elmore & Messmer, 2006). For example, Utah prairie dog burrowing in the Paiute's tribal arena created a safety hazard for dancers at the annual pow-wow (personal observation, 2012).

Development

In 2010, > 70% of the prairie dogs counted during extensive annual surveys occurred on private land (USFWS, 2012a). This presents a challenge because 64 - 89% of each county is managed as federal lands (Figure 2; Iron County Commission & UDWR, 1998; Iron County Commission, 2013). To develop lands that have Utah prairie dogs on them requires a special permit, because this is considered "take." Legally, "take" is any action that directly harms Utah prairie dogs or indirectly harms them by destroying their habitat or colonies. While permits allow for small habitat disturbances and "take," they may be costly as well as limited in number. As a result, larger commercial companies have been unable to use the permitting process to develop land

parcels that may otherwise be attractive to development.

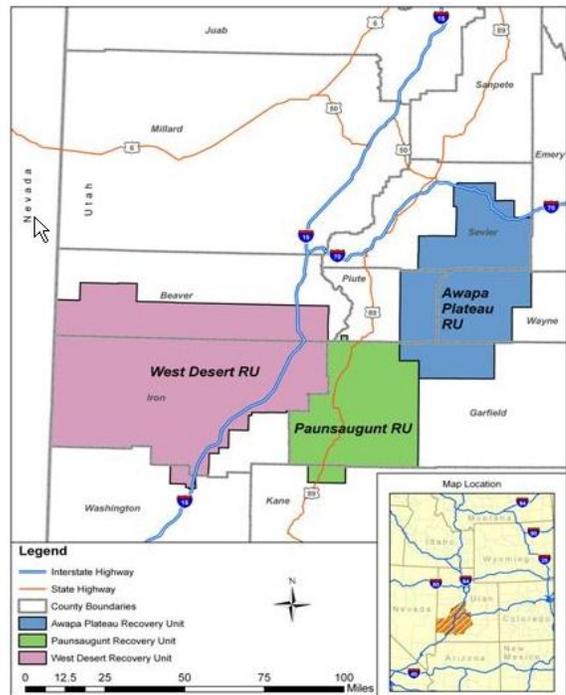


Figure 1. Distribution of Utah prairie dogs in Utah. Map courtesy of USFWS (2012).

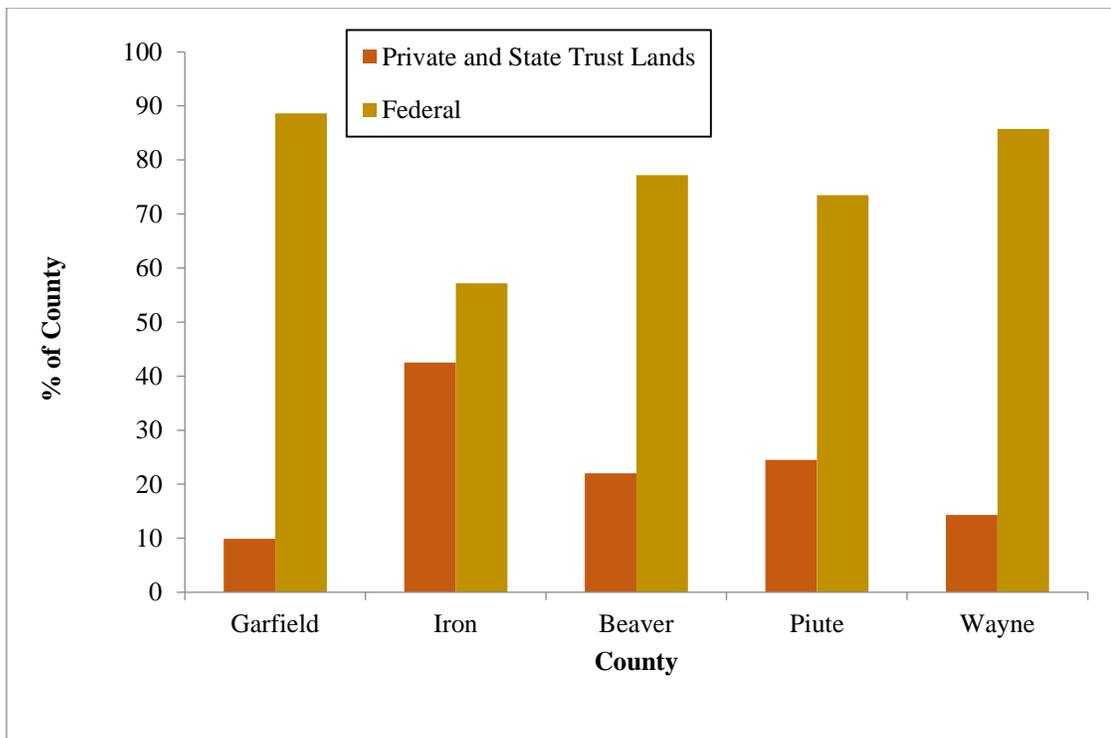


Figure 2. Proportion of land managed by the U.S. Federal Government and State trust lands/private entities. Information accessed at www.planning.utah.gov.

Prairie Dogs Conflicts and Private Land Management

In the original Utah prairie dog recovery management plan, Utah prairie dogs on private lands could not be not counted toward the population recovery goal; a decision that was made by the U.S. Fish and Wildlife Service based on comments from private landowners. Based on this decision the USFWS assumed that Utah prairie dogs would not be protected on private lands once Utah prairie dogs were considered “recovered” and removed from the Endangered Species list. Recovery numbers can only be counted on protected lands where Utah prairie dogs may remain after they are delisted. With the new recovery plan (USFWS 2012a), Utah prairie dogs on private lands that have a conservation agreement (e.g., Safe Harbor Agreement) are counted toward recovery.

“Why can’t private landowners just remove them from their lands if they aren’t counted toward recovery?” There are many reasons why we still need Utah prairie dogs on private lands, but they can be categorized into three.

1. Legal status

The federal law, The Endangered Species Act, states that we cannot cause harm to threatened species, except where permitted, regardless of the nature of the land ownership. Threats to Utah prairie dogs include the loss of habitat or range. To delist the species, these threats must be eliminated or reduced; removing all Utah prairie dogs from all private lands would increase this threat, not reduce it (USFWS, 2012a), because it would be considered a loss of available habitat and a loss of range.

2. Connectivity

Utah prairie dogs exist in colonies of variable size throughout their range. Within these colonies, animals are closely related. When individuals mature, the females often stay near their birthplace, while the males disperse to find another colony. This prevents inbreeding among generations of Utah prairie dogs. As colonies are removed for permitted urban expansion or agricultural activities, the range of the Utah prairie dog may become further fragmented, and colonies more isolated. This means that

male Utah prairie dogs may not be able to successfully move to another colony. As a result, inbreeding increases, which threatens the viability (ability to continue) of that colony (Mills, 2007). To maintain viability, ensure the continued existence of Utah prairie dogs, and delist the Utah prairie dog, this threat of fragmentation must be reduced. Maintaining Utah prairie dogs on private lands helps maintain the connectivity among colonies, and reduces the threat of fragmentation. This connectivity would not be possible if Utah prairie dogs existed only on public lands, because cities and towns intersect these federal lands.

Private lands can also help restore connectivity by being a source for Utah prairie dogs that are relocated to other areas. In an effort to restore connectivity to areas that have been fragmented, the U.S. Fish and Wildlife Service and Utah Division of Wildlife Resources will work to create new colonies or restore colonies that have been eliminated by plague. Because Utah prairie dog reproduce slowly, it would take a much longer time to restore this connectivity naturally, by allowing males to disperse and create new colonies. Instead, new colonies can be created exactly where they are needed within a few years, by translocating Utah prairie dogs from private lands.

3. A safeguard against plague

Plague is a disease that is transmitted by fleas. The disease is the same as that which caused the Black Plague in Europe. Because it isn’t native to the U.S., many animals have no resistance to the disease. Many small mammal species, including the Utah prairie dog die from the disease within a few days of exposure (Hoogland et al., 2004). As a result, a healthy Utah prairie dog colony can be eliminated within a week of an outbreak. To combat this threat, federal and state agencies have spent millions of dollars applying insecticides to Utah prairie dog colonies each year. The insecticide kills the fleas that might transmit the plague. These efforts are, in large part, the reason why Utah prairie dog numbers have been

increasing in the last decade (Biggins et al., 2010). Additionally, the U.S. Geological Survey has been studying the effects of a vaccine-laden bait to combat the mortality rate of plague. The bait could be broadcast throughout Utah prairie dog colonies, to increase their chance of survival when exposed to plague.

Once a colony is wiped out by plague, it may never recover without transplanting Utah prairie dogs back into the area. Rather than move Utah prairie dog from colonies on federal lands to recolonize these areas, management agencies can move Utah prairie dogs from private lands where they are causing problems. By translocating Utah prairie dogs from private lands, lost colonies can be restored within a few years rather than wait many years for colonies to recover through dispersal, or not recover at all. If the colonies are not restored, then the range has been reduced and fragmentation has increased, thereby increasing that threat.

Management Options for Landowners to Reduce Conflict

Even though the Utah prairie dog is a threatened species, there are options for landowners experiencing direct conflicts from Utah prairie dogs on their lands to reduce or remove the animals that are causing problems. Section 10 of the Endangered Species Act allows for “take” on private lands, after the applicant has submitted a habitat conservation plan. The habitat conservation plan outlines the likely impacts of the potentially harmful activities and the steps to minimize and mitigate those impacts (Sobeck & Weiland, 2011). Currently, Iron and Garfield Counties, the Piute Tribal Lands, and the Cedar Ridge Golf Course have habitat conservation plans to allow for “take” on non-federal lands (USFWS, 2014). The details of each agreement are unique to each habitat conservation plan, according to the Utah prairie dog population size at the location, the habitat available, and the needs of the applicant (USFWS, 2014).

These regulations include “incidental take” (unintentional harm) exemptions, which authorize the “take” of Utah prairie dogs as non-target hazards to agricultural activities, and the removal of

Utah prairie dogs on these lands, or on areas where Utah prairie dogs create serious human safety hazards or disturb the sanctity of significant human cultural or human burial sites. The total number of “direct take” on agricultural lands is limited to 7% of the annual range-wide population count. There is no limit to the number of animals that are removed in areas with safety or cultural hazards.

Contact the Iron County Commission for more information on obtaining a permit. (Iron County Commission, 2013; www.ironcounty.net.)

In most cases, the removal of Utah prairie dogs from private lands is conducted through a translocation of individuals in the summer. Since its listing in 1973, a recovery strategy has been to relocate Utah prairie dogs from agricultural fields and urban conflict zones onto public land throughout its extant range (USFWS, 2012a). During the period between 1972 and 2013 the Utah Division of Wildlife Resources and its partners have relocated over 25,000 Utah prairie dogs. For example, during the period of 2009-2012, 3,265 Utah prairie dogs were relocated to 11 different sites coming from roughly 2 dozen source locations across three counties in southwest Utah (J. Van Woeart, Utah Division of Wildlife Resources, personal communication). Many new complexes have been founded by these efforts and prairie dogs have been repatriated to areas where they have been extirpated.

Utah Prairie Dog Conservation on Private Lands

Not everybody has a conflict with Utah prairie dogs on their lands. Some landowners can maintain their economic activities with Utah prairie dogs on their property. Often, most of the hesitation surrounding Utah prairie dog conservation is about what happens to neighboring property if and when Utah prairie dogs disperse. ***The 2012 amendment to the 4(d) rule, includes statues to allow neighboring property to remove animals dispersing from conservation lands.*** During the last few years, two new programs have been developed to assist landowners with conserving Utah prairie dogs on their property.

1. Utah Prairie Dog Habitat Credit Exchange. Initiated in 2009, the Habitat Credit Exchange (HCE), is permitted under Section 10(a)(1)(A) to partner with

landowners to promote conservation through *voluntary* restoration, enhancement and management of farms and ranchlands. The HCE provides qualifying landowners with monetary compensation, habitat improvement, or a combination of the two, in exchange for entering a portion of their lands into a conservation easement where Utah prairie dogs will be protected. In essence, in these conservation easements, landowners are selling their rights to develop the property; however, all current land uses will continue to be allowed. ***The Utah prairie dogs living on these private properties can be counted toward the population recovery goal.*** More information can be found at

http://panoramalandrccd.org/?page_id=199

2. Safe Harbors. Safe harbors are a form of conservation agreement that protects landowners that have or may have sensitive, threatened, or endangered species on their lands. These agreements protect landowners from increases in the animal population as a result of land management activities that enhance the required habitat of these species (Sullins 2001). Safe harbors can also be created to protect landowners from federal regulation should their activities on their lands result in protected species using their land. Utah prairie dogs found on lands that are entered into a safe harbor agreement can be counted toward the recovery population goal. More information about using Safe Harbor Agreements specifically with Utah prairie dogs can be found at

http://panoramalandrccd.org/?page_id=199

Conclusion

The Utah prairie dog is an endemic species found only in Southern Utah. While beneficial to ecosystem health, the Utah prairie dog has historically been in conflict with agriculture and other human activities. Recent changes to laws regarding Utah prairie dogs and new conservation programs allow residents of southern Utah to both remove offending animals and conserve Utah prairie dog colonies. These new opportunities should reduce conflict between the species and

private landowners, and promote the health of the prairie dog population, ultimately resulting in the de-listing of the species.

Addendum

In 2014, a federal court ruled that management of Utah Prairie Dogs on private and state lands will be managed by the state of Utah. While the Utah prairie dog is still fully protected under state law, a person need not navigate the federal system to obtain the permits needed to manage them on their private lands. For example, a person may no longer need a habitat conservation plan before being eligible for “take” on their lands. Persons looking to remove Utah Prairie Dogs on their lands will still need to contact the Utah Division of Wildlife Resources to determine the legal methods of removal, the extent of removal and the timing of activities (<http://wildlife.utah.gov/wildlife-news/1535-utah-prairie-dog-still-protected.html>).

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