

# 2012 Wildlife Surveys

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## Introduction

During 2012, wildlife surveys at the Rocky Flats Site (Site) consisted of observing black-tailed prairie dogs (*Cynomys ludovicianus*), monitoring bird nesting boxes, and observing active raptor nests. The Site consists of the Central Operable Unit (COU), which comprises the lands retained by the U.S. Department of Energy, and the Peripheral Operable Unit (POU), most of which was transferred to the U.S. Fish and Wildlife Service to become the Rocky Flats National Wildlife Refuge.

Black-tailed prairie dogs are not uncommon at the Site. Prairie dog towns in the upper elevations of the COU and POU are scarce due to the abundance of rocks in the pediment soils. However, they are more common in the lower-elevation, deeper-soil areas on the eastern half of the POU and in one upper-elevation surface in the northeast corner of the POU where the soils are less rocky. In the past, several prairie dog towns existed for many years at these locations. From an ecological standpoint, the prairie dogs are an important component of the ecosystem, providing food for raptors and coyotes, and also a source of natural disturbance to the vegetation communities where the prairie dog towns are located. In recent years, conflicts between people and prairie dogs have increased along the Front Range. Prairie dogs are perceived as hindering recreational use and harming the quality of habitat on public lands. Numerous municipalities along the Front Range have instituted relocation programs to avoid or limit the outright killing of the prairie dogs. Several of these programs have resulted in prairie dogs being moved just outside the POU on the Site's eastern and northern boundaries. At some offsite locations, the increase in prairie dog populations has denuded the landscape and created bare soil areas that become sources of large dust clouds during high winds.

The primary concern with the prairie dog colonies at the Site is the potential for the prairie dogs to create an erosional surface by removing vegetation cover. Two landfills are present at the Site, the Original Landfill and the Present Landfill. The Monitoring and Maintenance Plans for both landfills prohibit the presence of burrowing animals on the landfill covers. Additionally, infrastructure is buried at some locations in the former Industrial Area (within the COU), and the prairie dogs' natural tendency to dig makes them undesirable at these locations. Thus, from a management standpoint, it is important to monitor the locations and abundance of prairie dogs at the Site.

In an effort to increase wildlife habitat at the Site, and as an activity for Bring Your Child to Work Day in 2009, children painted nine bluebird (*Sialia currucoides*) nest boxes, which were installed at selected locations throughout the COU. In fall 2012, four additional bluebird nest boxes and four chickadee (*Poecile atricapillus*) nest boxes were installed at various locations in the COU (Figure 1). The nest boxes are monitored to see what species are using the boxes.

Nesting raptors are also present at the Site. These and other bird species are protected under the Migratory Bird Treaty Act, and monitoring the location and nesting habits of the raptors (and other birds) at the Site is important for project planning activities.

## Methods

In 2012, the following were observed during prairie dog surveys:

- The locations of prairie dog towns within the COU and adjacent to the COU fence on POU property.
- The locations of individual prairie dogs observed in the spring when they roam in search of potential locations for new prairie dog holes.

The findings from these observations were documented in field notes.

Nest boxes were surveyed for nesting activity on May 31, June 26, and July 25, 2012, by visual observations of the nest box from a distance or by approaching the box on foot.

Visual observations were made of the raptor nests to document the approximate time frames of nesting at the Site and their nesting success.

Other wildlife observations were made fortuitously and noted in field notebooks.

## Results and Discussion

### Prairie Dog Surveys

Figure 2 shows the locations of former and current prairie dog towns in the COU and on the adjacent POU property as of 2008. In 2009, the prairie dogs throughout the COU and POU were killed by an outbreak of plague that began in the colonies east of the POU on the adjacent Westminster Hills Open Space/Dog Park (Jefferson County 2009). Plague is an infectious disease caused by *Yersinia pestis*, a bacterium found in fleas that pass on the bacterium to wild rodents by biting them. Prairie dogs are susceptible to plague, and colonies can be wiped out by plague every few years. Observations of the former towns during 2012 revealed that no prairie dog towns were active within the COU. However, the small town in the POU north of the A-4 pond (northern town shown on Figure 2) had approximately 25 individuals present in May. Six to twelve of these individuals appeared to be young of the year. The numbers of prairie dogs at this town have been gradually increasing over the past few years.

No individual prairie dogs were observed roaming along the roads at the Site in 2012. The prairie dogs typically travel beyond their existing towns in search of other potential burrow locations in the late spring and early summer. With the exception of the sightings at the town north of the A-4 pond, inspectors have observed no signs of the prairie dogs' return at the previously occupied prairie dog towns. Fortuitous monitoring of these locations will continue throughout 2013 to determine whether the prairie dogs have returned.

### Nest Box Monitoring

Table 1 summarizes the nest box observations made in 2012. Half of the nest boxes showed evidence of nesting activity in 2012. Tree swallows (*Tachycineta bicolor*) occupied two nest boxes and house wrens (*Trigloodytes aedon*) occupied two other nest boxes this year. The four new bluebird nest boxes and four new chickadee nest boxes that were installed in fall of 2012 will be monitored in 2013. Their locations are shown on Figure 1.

## **Raptor Nesting Observations**

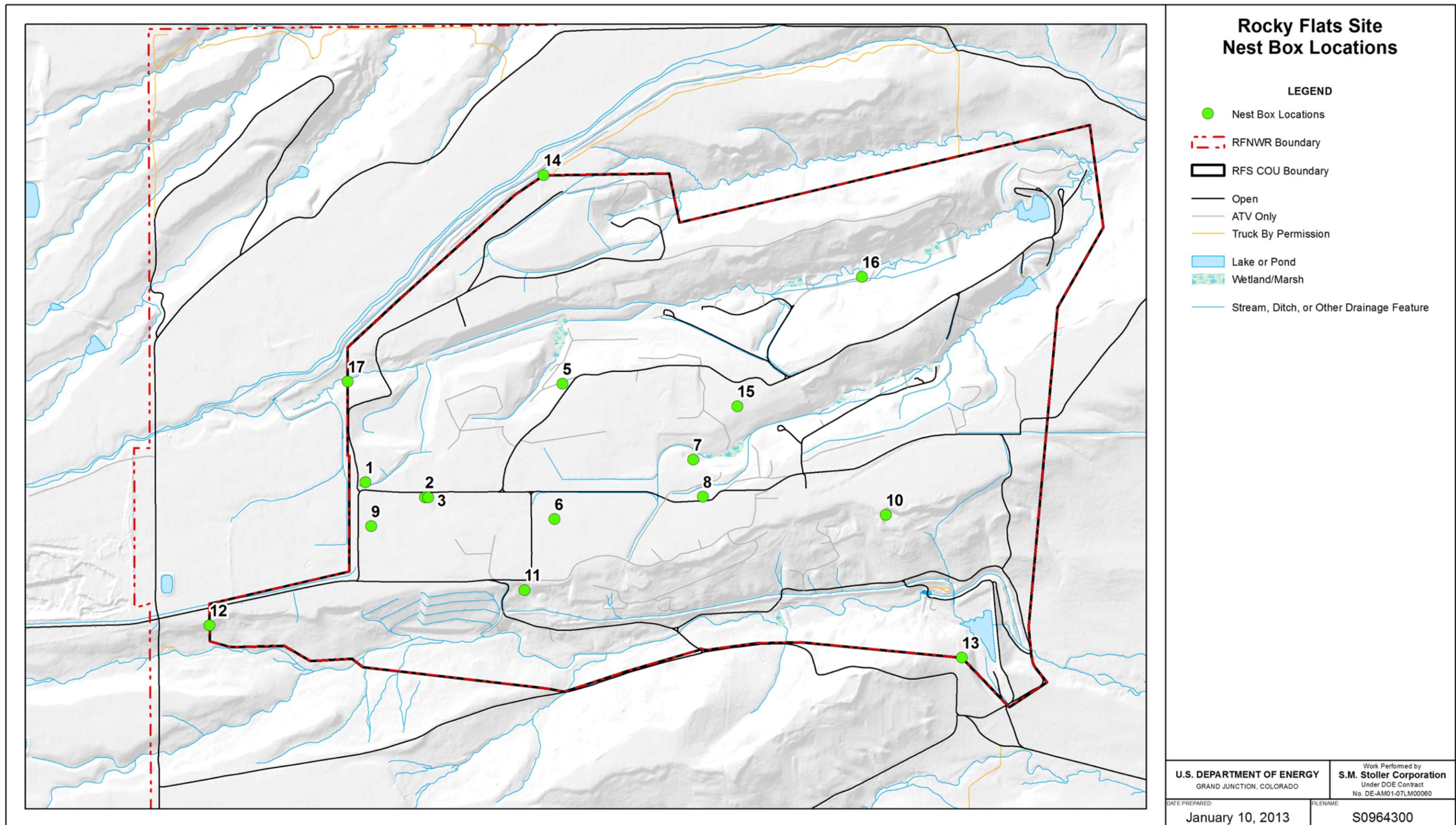
In 2012, no active raptor nests were observed within the COU.

## **Summary**

In 2012, no active prairie dog towns were present within the COU. However, the town north of the A-4 pond has an increasing number of prairie dogs. Tree swallows and house wrens used four of the eight nest boxes in the COU that were available in 2012. No active raptor nests were observed in the COU in 2012.

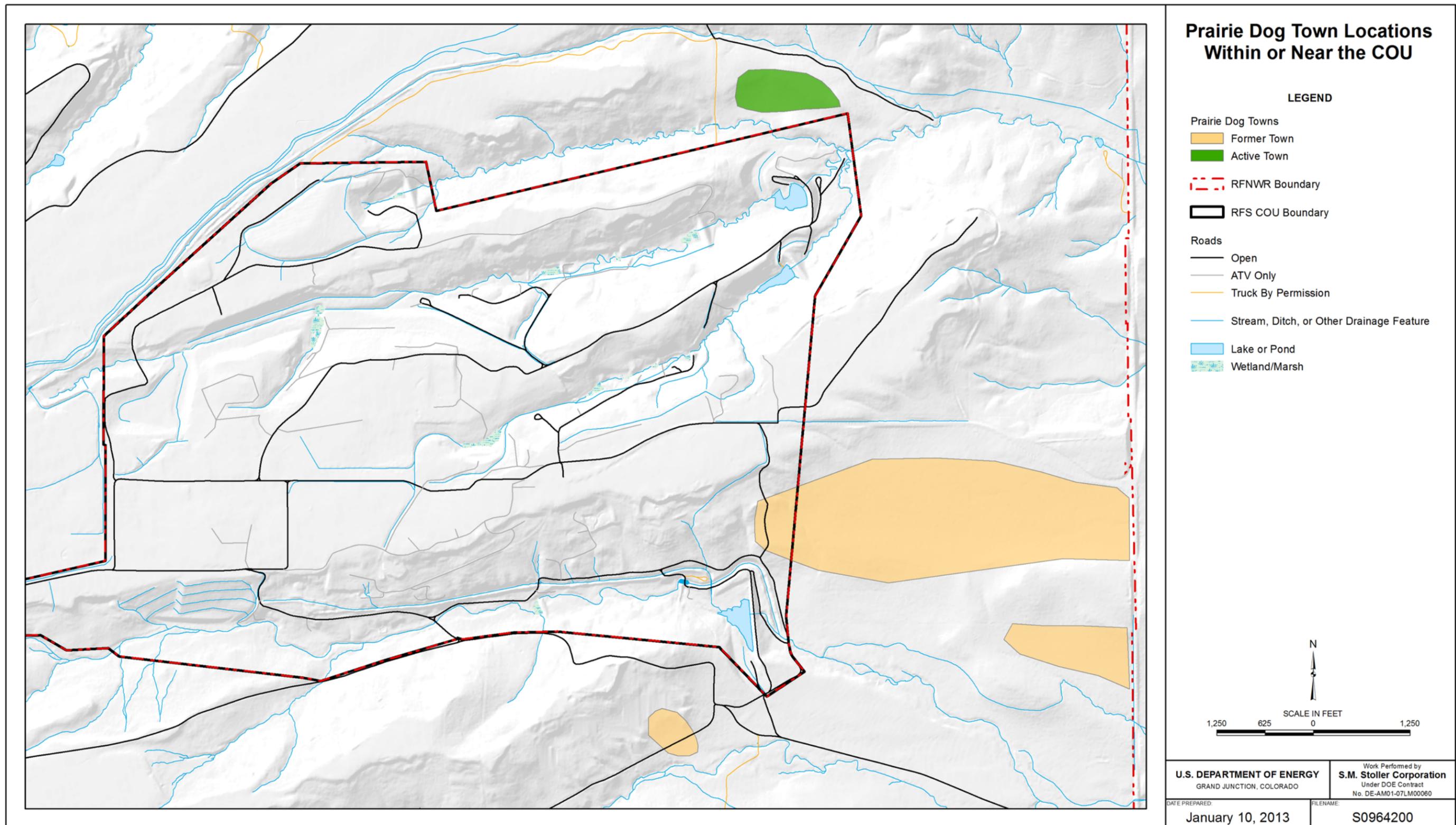
## **References**

Jefferson County, 2009. "Re: Plague Confirmed in Jefferson County Prairie-Dog Population," Jefferson County Department of Health and Environment, Jefferson County, Colorado, July 15, 2009, [http://www.jeffco.us/news/news\\_item\\_T3\\_R1441.htm](http://www.jeffco.us/news/news_item_T3_R1441.htm) (accessed December 2, 2009).



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Figure 1. Rocky Flats Site Nest Box Locations



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Figure 2. Prairie Dog Town Locations Within or Near the COU

**Table 1. Bluebird Nest Box Summary 2012**

<b>Nest Box Number</b>	<b>Active Nest Yes/No</b>	<b>Species</b>	<b>Comments</b>
1	No	None	Box full of twigs but not active nest this year. Probably some house wren activity.
2	Yes	House Wren	House wren observed flying out of box on 7/25/12. No observations of young however. So presumed active.
3	No	None	Box full of twigs but not active nest this year. Probably some house wren activity.
5	Yes	House Wren	Box full of twigs. Two house wrens observed scolding observer as he approached box on 7/25/12. No observations of young but parents observed going back and forth to nest with something in their mouth (presumed food).
6	Yes	Tree Swallow	Tree swallow observed in box on 5/31/12 and 6/26/12.
7	No	None	Box full of twigs but not active nest this year. Probably some house wren activity.
8	No	None	A few twigs inside box but nothing more.
9	Yes	Tree Swallow	Tree swallow observed in box on 5/31/12 and 6/26/12. Egg observed in box on 7/25/12.

Additional nest boxes were installed after the nesting season in 2012. They will be observed beginning in 2013. Nest box #4 was destroyed when the tree fell over several years ago.