

2014 Wildlife Surveys

Introduction

During 2014, 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 infrequent 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 many years in the past, several prairie dog towns existed at these locations. From an ecological standpoint, the prairie dogs are an important component of the ecosystem. They provide food for raptors and coyotes, and they are 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, nest boxes for birds have been installed at selected locations throughout 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 2014, 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.

Nest boxes were surveyed for nesting activity on May 19–20, June 16, July 24 and 28, and August 12, 2014, by visual observations of the nest box from a distance or by approaching the box on foot.

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

The findings from these observations were documented in field notes or datasheets. Other wildlife observations were made fortuitously and were also noted in field notebooks.

In 2014, a game trail camera, capable of capturing still photos and video of various wildlife, was set out at different locations at the Site.

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. 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. Plague is an infectious disease caused by *Yersinia pestis*, a bacterium found in fleas. The fleas pass on the bacterium to wild rodents. Prairie dogs are susceptible to plague, and colonies can be wiped out by plague every few years. Observations of the former towns in the southern portion of the Site during 2014 revealed that no prairie dog towns were active within the COU. However, two small towns in the POU north of the A-4 pond (northern towns shown on Figure 2) had prairie dogs present this year. The maximum number of individuals recorded at each of these towns varied throughout the year, but approximately 23 individuals were observed in the northern-most town in June, while approximately 27 individuals were observed at the town closer to the COU fence in June.

No individual prairie dogs were observed roaming along the roads at the Site in 2014. 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 towns north of the A-4 pond, inspectors have observed no signs of the prairie dogs' return at the previously occupied prairie dog towns in the southern areas. Fortuitous monitoring of these locations will continue throughout 2015 to determine whether the prairie dogs are returning at these locations.

Nest Box Monitoring

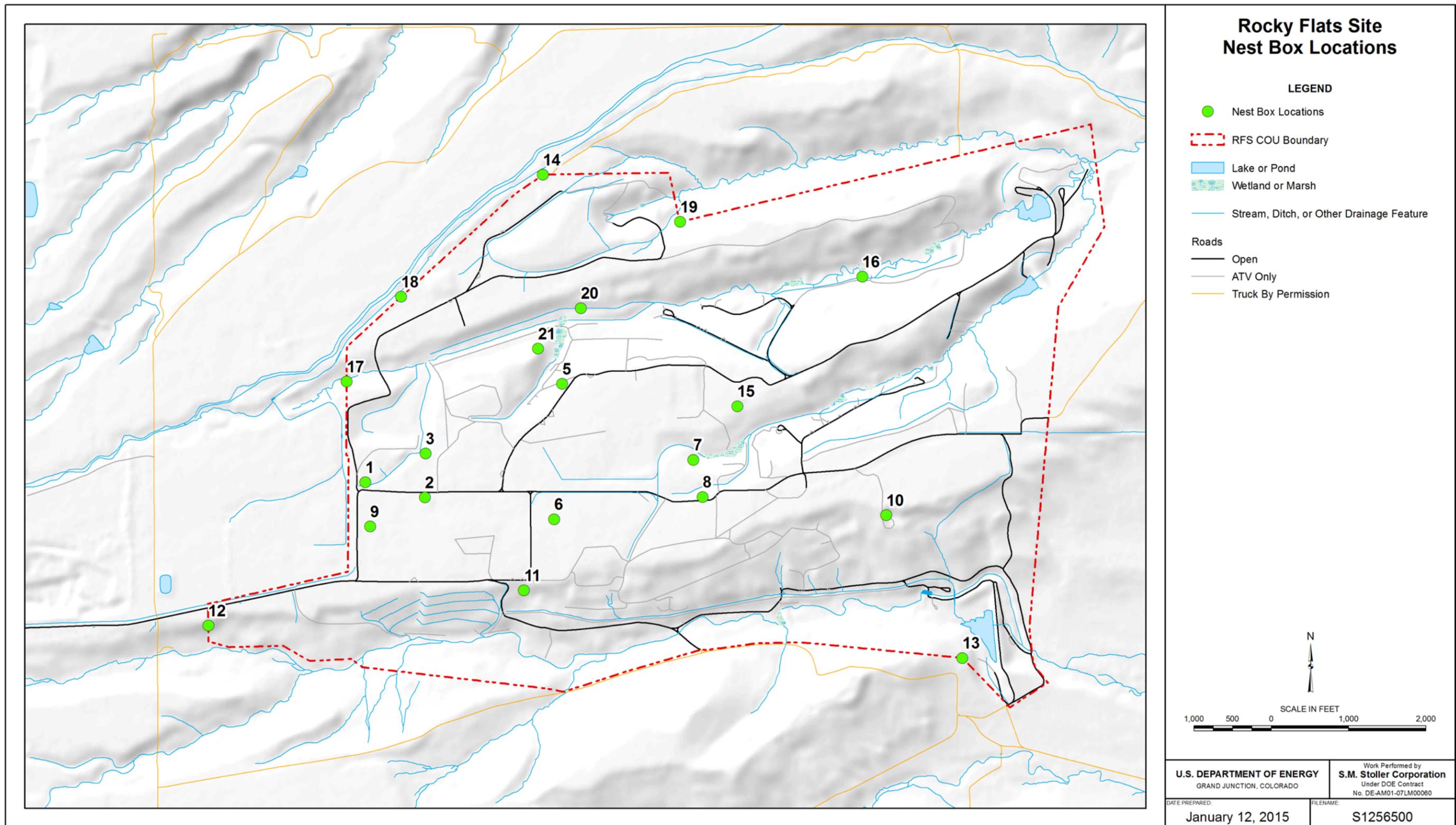
Table 1 summarizes the nest box observations made in 2014. Thirteen of 20 nest boxes showed evidence of nesting activity in 2014. The species of birds observed using the nest boxes in 2014 included mountain bluebirds (*Sialia currucoides*), tree swallows (*Tachycineta bicolor*), and house wrens (*Troglodytes aedon*).

Raptor Nesting Observations

In 2014, no active raptor nests were observed within the COU.

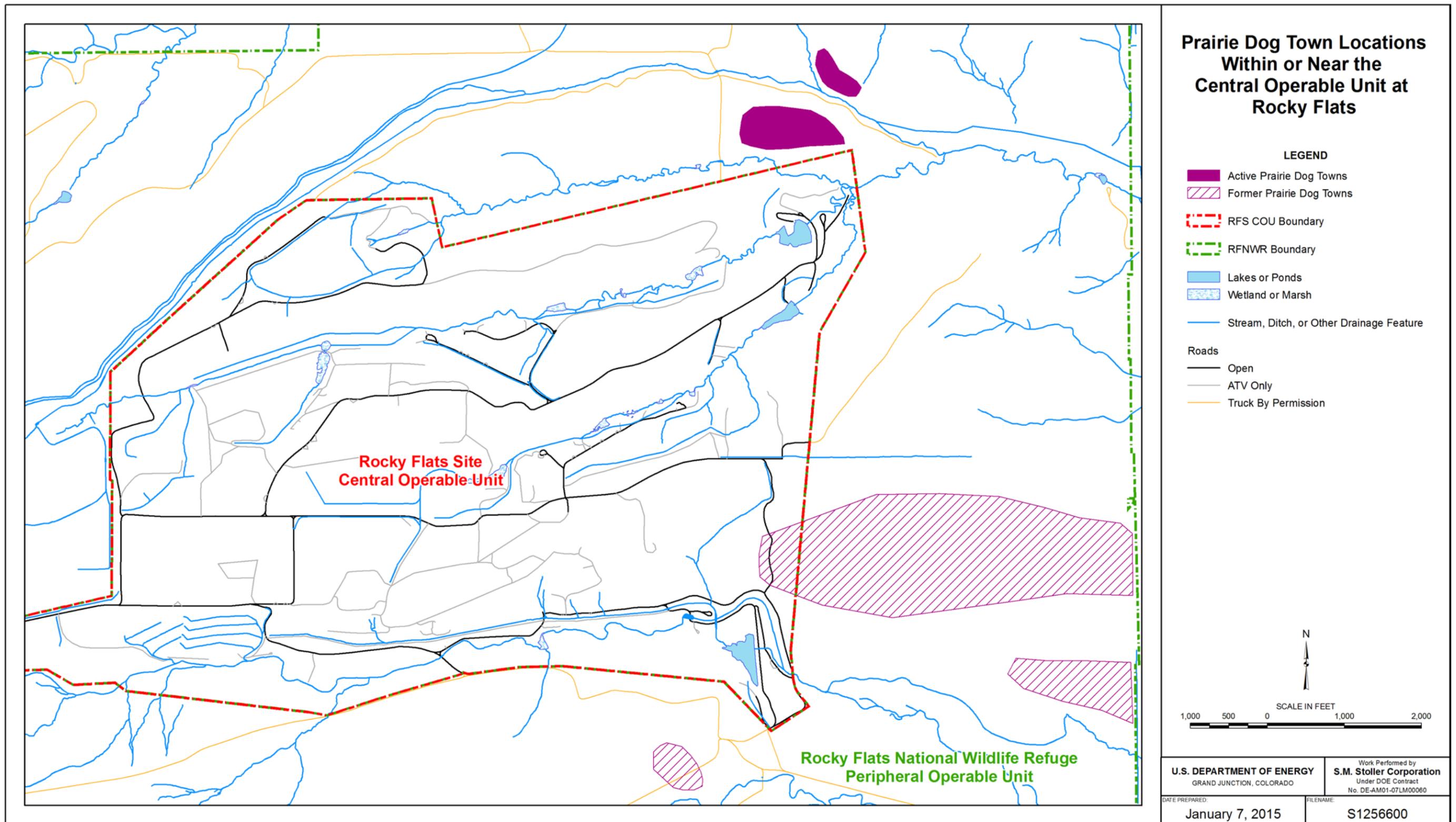
Summary

In 2014, no active prairie dog towns were present within the COU. However, the towns north of the A-4 pond continue to have prairie dogs. Mountain bluebirds, tree swallows, and house wrens used 13 of the 20 nest boxes that were available in the COU in 2014. No active raptor nests were observed in the COU in 2014.



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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 Central Operable Unit at Rocky Flats.

Table 1. Nest Box Summary 2014

Nest Box Number	Active Nest Yes/No	Species	Comments
1	Yes	Mountain Bluebird	Grass nest with 1 egg observed in May.
2	Yes	Tree Swallow	Tree swallow sitting at opening of box in June. Assumed active.
3	?	Tree Swallow	Grass was present in the box and tree swallows were flying around the tree in May, but could not see any signs of an active nest.
5	Yes	Tree Swallow	Tree swallow flew out of box in May and was sitting at the entrance to the box in June. Assumed active.
6	No		Grass was present in the nest box, but not active.
7	No		Grass was present in the nest box, but not active.
8	Yes	Tree Swallow	Tree swallow flew out of box in June. Assumed active.
9	Yes	Tree Swallow	Tree swallow sitting at opening of box in June. Assumed active.
10	Yes	Tree Swallow	Tree swallow flying back and forth to nest box in May. Assumed active.
11	Yes	House Wren	Box full of twigs and bird nearby. Assumed active.
12	Yes	Tree Swallow?	One small white egg in nest in July.
13	No		Empty nest box.
14	No		Empty nest box.
15	Yes	Tree Swallow	Tree swallow sitting at opening of box in May and flew out of box in June. Assumed active.
16	No		Empty nest box.
17	No	House Wren	Some twigs in box. Perhaps started a nest and did not use.
18	Yes	Tree Swallow	Tree swallow sitting at opening of box in June. Assumed active.
19	Yes	Tree Swallow	Tree swallow sitting at opening of box in June. Assumed active.
20	Yes	House Wren	Pair of wrens guarding box in May. Assumed active.
21	Yes	House Wren	Wren came out of box in May and June. Assumed active.

Nest box #4 was destroyed when the tree fell over several years ago.