

# 2015 Wildlife Surveys

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## Introduction

During 2015, wildlife surveys at the Rocky Flats Site (Site) consisted of observing black-tailed prairie dogs (*Cynomys ludovicianus*), monitoring bird nesting boxes, and locating 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 years 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 times, the increase in prairie dog populations at these locations 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 raptors are also protected under the Bald and Golden Eagle Protection Act. Monitoring the location and nesting habits of the raptors (and other birds) at the Site is important for project planning activities.

## Methods

In 2015, the following were observed during prairie dog surveys:

- The locations of current and former 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 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.

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.

During 2015, 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 2015 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 24 individuals were observed in the northernmost town in April, while approximately 17 individuals were observed at the town closer to the COU fence in April. Two burrowing owls (*Athene cunicularia*) were observed in the latter town in April 2015.

Three observations of prairie dogs within the COU were made in late spring 2015. Two were observed running down the main roads in the center of the COU, and the other was in the talons of a great horned owl (*Bubo virginianus*) northeast of the C-2 pond. The prairie dogs typically travel beyond their existing towns in search of other potential burrow locations in the late spring and early summer. No evidence of burrowing or other prairie dogs was found in the COU during the remainder of 2015. Fortuitous monitoring will continue throughout 2016 to determine whether prairie dogs are in the COU.

## **Nest Box Monitoring**

Table 1 summarizes the nest box observations made on May 12 and June 25–29, 2015. Fourteen of 21 nest boxes showed evidence of nesting activity in 2015. The species of birds observed using the nest boxes in 2015 included tree swallows (*Tachycineta bicolor*) and house wrens (*Troglodytes aedon*).

## **Raptor Nesting Observations**

In 2015, an active red-tailed hawk (*Buteo jamaicensis*) nest was observed in a cottonwood tree along the stream in Woman Creek within the COU (Figure 3). It is unknown whether any young fledged. Two Swainson's hawks (*Buteo swainsoni*) were observed trying to build a nest adjacent to the main road in a ponderosa pine tree in the west-central part of the COU (Figure 3). However, this nest never appeared to become active.

## **Game Camera Video**

In fall 2015, the game camera was installed on a fencepost south of the Original Landfill in an area where elk (*Cervus canadensis*) often cross over the fence. A video of a large bull elk was captured with the camera on the evening of November 17, 2015. The video can be observed on the DVD 2 by clicking on the link entitled, "Bull Elk Video" under the Game Camera Video section.

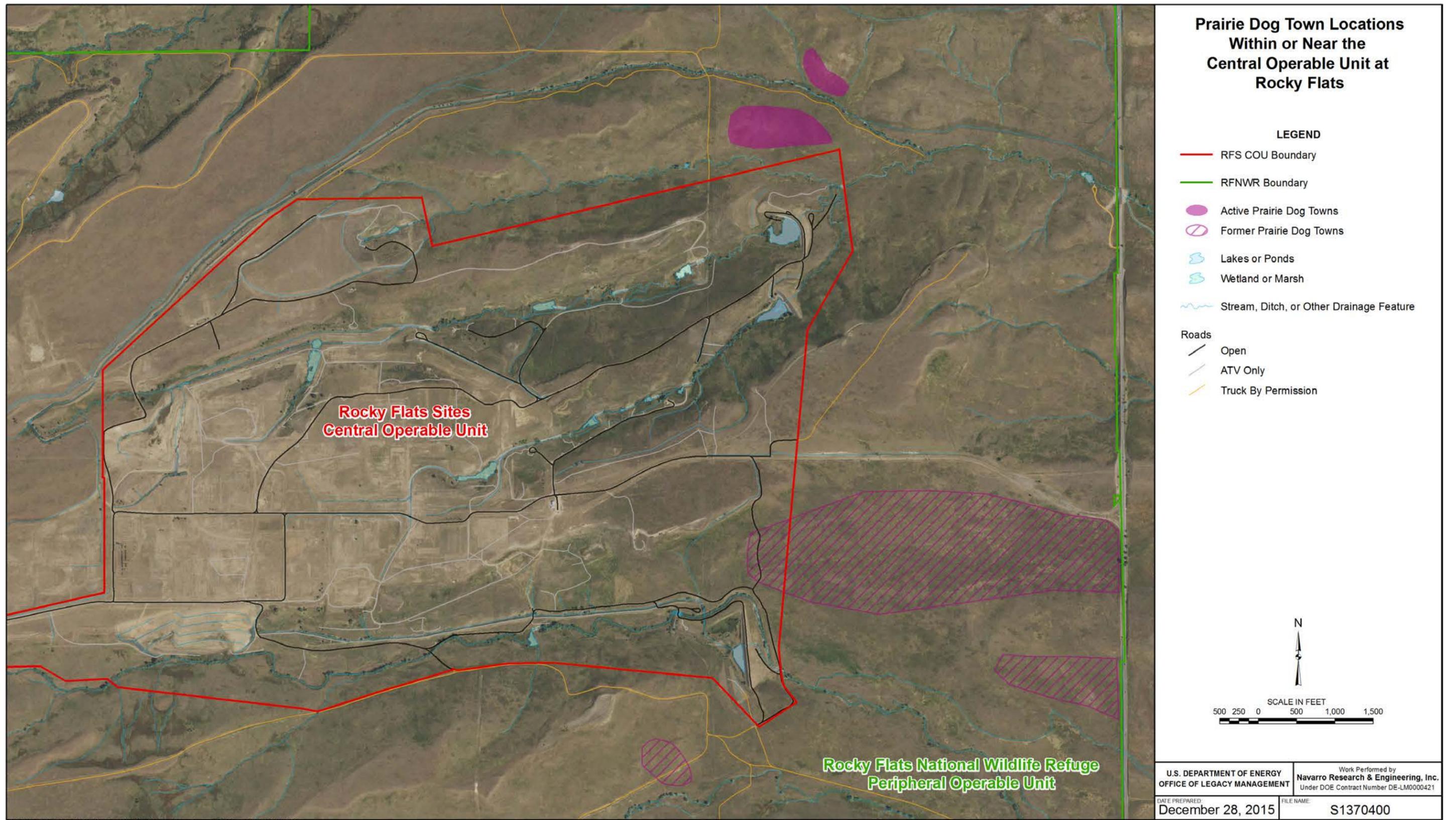
## **Summary**

In 2015, no active prairie dog towns were present within the COU. However, the towns north of the A-4 pond continue to have prairie dogs. Tree swallows and house wrens used 14 of the 21 nest boxes that were available in the COU in 2015. An active red-tailed hawk nest was observed along Woman Creek in 2015.



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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



**Raptor Nest Locations  
Central Operable Unit  
Rocky Flats Site  
2015**

**LEGEND**

Species

- Red Tailed Hawk
- Swainson's Hawk

RFS COU Boundary

N



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DATE PREPARED: December 28, 2015	FILE NAME: S1370500

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Figure 3. Raptor Nest Locations Central Operable Unit Rocky Flats Site 2015

Table 1. Nest Box Summary 2015

Nest Box Number	Active Nest Yes/No	Species	Comments
1	N		Box partially full of twigs. Probably from a house wren.
2	N		Box full of twigs. Probably from a house wren.
3	N		Box full of twigs. Probably from a house wren.
5	Y	Tree Swallow	Bird sitting in nest box hole with head sticking out. Assumed active.
6	Y	Tree Swallow	Bird flew out on approach to box. Assumed active.
7	N		Box full of twigs. Probably from a house wren.
8	Y	Tree Swallow	One bird observed entering the nest box. Pair of birds flying around nest on approach to nest. Assumed active.
9	Y	Tree Swallow	One bird observed entering the nest box. Pair of birds flying around nest on approach to nest. Box full of nesting materials. Assumed active.
10	Y	Tree Swallow	One bird observed in box. Other bird flying around gathering and bringing food to the box entrance. Assumed active.
11	Y	House Wren	Box full of twigs. Wren sitting on nearby branch and bird poop was present on entrance to the box. Assumed active.
12	Y	Tree Swallow	Swallow sitting outside entrance hole on the box. Assumed active.
13	N		
14	N		
15	Y	Tree Swallow	One bird sitting with head out of the entrance hole. The other bird was sitting on a branch next to the hole. Assumed active.
16	Y	House Wren	Box full of twigs. Lots of bird poop outside the entrance to the box. Similar to #11. Assumed active.
17	Y	House Wren	Box full of twigs. Lots of bird poop outside the entrance to the box. Similar to #11. Assumed active.
18	Y	Tree Swallow	Both birds flying food to the nest box and entering or feeding young at the entrance hole.
19	Y	Tree Swallow	Bird feeding baby birds at entrance hole. Flying out and getting more food and feeding young again.
20	N		
21	Y	Tree Swallow	Bird sitting inside nest box with head out of the entrance hole. Assumed active.
22	Y	Tree Swallow	Bird flew to box and entered entrance hole. Then came out and caught insects to take to the nest box. Assumed active.

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