



Fact Sheet

Prairie Dog Management

1. Description

There are nine active prairie dog colonies in Metro District-owned open space areas. The habitat of these colonies is fragmented by urban development, the majority of which are residential homes. Many of these colonies are adjacent to residential homes, parks and trails. Limited expansion opportunities contribute to overpopulation of prairie dog colonies, overgrazing of the short grass prairie, close contact with humans, and damage to private property.

Commercial and residential development in Highlands Ranch has limited the presence and the effectiveness of predators such as coyotes, hawks, snakes and eagles. These predators are more abundant in natural ecosystems and help to control prairie dog populations.

2. Goals

One of our open space management goals is to manage open space as healthy natural systems, maintaining a rich diversity of native plants and animals. Conservation and management of native wildlife populations through habitat management is crucial to this challenge.

In accordance with the Metro District open space management goals, prairie dog populations will be conserved with the following objectives:

- Minimize health or safety hazards
- Manage natural areas for species and ecosystem diversity
- Maintain healthy prairie dog colonies
- Minimize damage to public and private property
- Minimize possibilities for future conflicts between prairie dogs and humans

3. Opportunities for Relocation and Issues

Seven of the prairie dog colonies maintained in the Metro District's open space have been fragmented into small habitat blocks, primarily due to residential development. Prairie dog populations often exceed the carrying capacity of the land. When this happens open space areas are invaded with noxious weeds, prairie dog / human contacts become more prevalent, and damage to private property often occurs.

On Monday, July 31 Nick Adamson, open space supervisor, sent an e-mail message to the 15 agencies that participate on the Front Range Black-tailed Prairie Dog Council, the U.S. Fish & Wildlife Service's Rocky Mountain Arsenal Wildlife Refuge, Shea Homes, and to the Center for Native Ecosystems notifying them that the Metro District would be removing prairie dogs in September and requesting

knowledge of wild to wild relocation sites. We received 20 responses from various resource staff indicating they did not have, or were not aware of, any relocation sites on the Front Range of Colorado.

As part of the recently updated prairie dog conservation plan, the Metro District may exterminate prairie dogs that disperse from the Metro District's land onto adjacent or nearby land, only with permission of the property owner and pursuant to a written request by the property owner without public notice. Property owners have a responsibility to protect their property from prairie dogs by erecting and maintaining barriers on their fence in accordance with the covenants of the Highlands Ranch Community Association (HRCA). The Metro District will not perform this service if the property owner has not taken appropriate action to protect their property from prairie dogs.

4. Process

The Survey:

The Metro District's open space staff formally survey and assess the nine prairie dog colonies maintained in Metro District's open space two times per year. Each survey includes three separate visual animal counts with binoculars from a non-threatening distance of the colony. The counts are then averaged to determine population densities. Staff also monitor for the presence or absence of burrowing owls in prairie dog colonies.

In addition to physically counting prairie dogs, open space staff observes the seven criteria as outlined in the Prairie Dog Conservation Plan, *Guidelines for Managing a Prairie Dog Colony*. We assess the general health of the colony, the colony size in acres, destruction of private property, human health and safety hazards, noxious weed invasions and general vegetative health and types of cover, planned development of the site and passive management objectives. Combinations of these factors are considered when determining the need to remove prairie dogs.

The following table shows the prairie dog sites we manage, and the cumulative average of prairie dog surveys conducted for these sites and vegetation comparison for 2005 and 2006.

Managed Colonies	2005 Est. Ground Cover/Vegetation Est%					2006 Est. Ground Cover/Vegetation Est%				
	Pop/ac	Bare Ground	Native Grasses	Weeds	Forbs	Pop/ac	Bare Ground	Native Grasses	Weeds	Forbs
Spring Gulch @ Highlands Ranch Pkwy	21	5%	4%	90%	1%	23	55%	10%	17%	18%
Spring Gulch @ Foothills Trail	26	7%	6%	65%	12%	21	44%	19%	35%	2%
Spring Gulch @ Pronghorn Park	26	R*	5%	10%	5%	19	59%	7%	32%	2%
Big Dry Creek Park	21	5%	15%	77%	3%	18	45%	8%	31%	16%
Vista/Falcon Trail	14	5%	15%	75%	5%	12	91%	7%	1%	1%
Saddle Ranch	20	3%	45%	35%	17%	20	3%	45%	35%	17%
E. Big Dry West	27	8%	2%	85%	5%	12	46%	2%	40%	12%
E. Big Dry East						12	86%	0%	12%	2%
Dad Clark @ Northridge	15	5%	40%	5%	50%	8	95%	2%	1%	2%

R* - Revegetation Project October 2005

Relocation and Resident Notification:

When it is appropriate to manage a prairie dog site, and relocation sites are not available, we will consider other environmentally sound options, as recommended by the Colorado Division of Wildlife (CDOW). The two options available are delivery to conservation programs and lethal control. Lethal control is an option that has been studied and will only be used when approved relocation sites are not available or preferred techniques are not an option. Lethal control will not be used to maintain population carrying capacity.

At least thirty days prior to relocation, removal or extermination of prairie dogs, staff will:

- Notify adjacent property owners in writing of the planned action.
- Post signage at trail locations adjacent to the colony explaining the planned actions.
- Post this Planned Actions Fact Sheet on the Metro District's Web site, with a link to the previous year's fact sheet.

If lethal control is considered as an option, staff will, in addition to the above:

- Conduct a public meeting with affected residents and landowners of the surrounding areas to inform them of the need to manage the prairie dog colony's population.
- Notify Tri-County Health Department staff one week prior to the planned control.
- Coordinate this action through the CDOW. Lethal controls will be in compliance with the State of Colorado's pesticide application laws.

5. Project Team

Nick Adamson, open space supervisor, oversees the implementation of the prairie dog conservation plan. He coordinates the prairie dog relocation process, trail user notification signs, and resident notifications by letter.

Scott Nelson, open space technician, is assigned the responsibilities of monitoring the prairie dog colonies, conducting formal inventories, and maintaining aerial photographs showing the colony size for year to year comparisons. In addition, Scott maintains records of inventory counts, burrowing owl surveys, and prairie dog live catch records consisting of animal counts by gender and age.

Scott and Nick work with private property owners throughout the year to record and mitigate property damage. Bill Dailey, natural resources manager and Crystal Peterson, CDOW wildlife manager, participate in an advisory capacity, and to provide information to the public.

6. Research

In meeting the challenge to maintain healthy prairie dog populations in our open space areas, the Metro District Board of Directors appointed a task force in December 2005 that met on nine occasions from January 18 to March 22, 2006 to review the Metro District's Prairie Dog Conservation Plan. The task force included nine members representing Highlands Ranch residents, the CDOW, Tri-County Environmental Health Services, conservation group representatives, Prairie

Preservation Alliance and Douglas County Citizens for Wildlife, and the Metro District. In June 2006, the Metro District's Board of Directors approved revisions to the Metro Districts Black-tailed Prairie Dog Conservation Plan. This plan is available on our Web site at www.highlandsranch.org.

Annually, our staff keeps current on regulations pertaining to the Black-tailed Prairie Dog by attending annual front range prairie dog workshops. We also work closely with our assigned CDOW Wildlife Manager, Crystal Peterson, and participate in the Front Range Black-tailed Prairie Dog Council meetings to share ideas and issues.

7. Alternatives Studied

Three alternatives have been studied:

- Relocation includes live trapping prairie dogs by setting live traps, or by burrow flushing.
- Delivery to a conservation program is giving prairie dogs that have been live trapped to the U.S. Fish and Wildlife Service's National Black-footed Ferret Conservation Center in support of the Black-footed Ferret Recovery Program. The second option would be to deliver prairie dogs to a raptor rehabilitation program. In both of these options, prairie dogs would be euthanized and used as a food source for raptors and Black-footed Ferrets. For more information on programs to save these endangered and protected species see <http://www.blackfootedferret.org/who.html> or <http://www.usaref.org/Rehab.htm>.
- Lethal Control is an option that has been studied and will only be used when no approved relocation sites are available or preferred techniques are not an option. Acceptable methods are limited to the use of fumigants approved by the U.S. Environmental Protection Agency (EPA). Poison bait or oral toxicants will not be used as a means of control.

8. Recommended or Preferred Action

The Metro District's preferred action is to live catch prairie dogs by burrow flushing. We have found through experience and a great deal of research that this method has a high animal survival rate of greater than 95 percent. According to Mike Lockhardt, the U.S. Fish and Wildlife Service coordinator with the Black-footed Ferret Recovery Program, "Because of the threat of plague and monkey pox, it's illegal to capture live prairie dogs except with certain exemptions." Contractors must be licensed by the CDOW and the U.S. Fish and Wildlife Service, and have met all criteria for exemption to relocate prairie dogs to the Federal Ferret Recovery Program. The Metro District only uses licensed contractors for burrowing flushing of prairie dogs. There currently are no relocation sites on Metro District property or in the Front Range of Colorado.

To achieve our objectives as outlined in item #2, Goals, the Specific Prairie Dog Site Recommendations for 2006 are:

- a. First priority - to flush all burrows affecting private property and within six feet of trails.
- b. Second priority - remove prairie dogs from unsuitable areas.

- c. Third priority - achieve population density goals in the listed colonies, in the order as outlined in the following table, and
- d. Revegetate all areas that were burrow flushed.

Colony Sites by Priority	Colony Size Acres	2006 Colony Population	Colony Population Goal @ 16 ac.*	2006 Population per Acre	2006 Removal Goal *
Spring Gulch at Highlands Ranch Pkwy	5.2	268	83	52	216
Spring Gulch at Foothills Trail	12	519	192	43	327
Spring Gulch at Pronghorn Park	16.0	690	256	43	434
Big Dry Creek Park	2.7	100	43	37	57
Vista/Falcon Trail	3.7	96	59	26	37
Saddle Ranch	1.3	23	21	18	2
E. Big Dry West	22	683	352	31	331
E. Big Dry East	1.7	33	27	20	6
Dad Clark Gulch at Northridge	11	291	176	26	115
TOTALS:	75.6				1,525

* Our goal is to maintain prairie dog colonies at carrying capacity of the land. If the land has a healthy stand of short grasses, it will only support approximately 16 to 20 prairie dogs per acre (Seery 1997). With the exception of Dad Clark Gulch, there is a lack of desirable vegetation associated with all of our prairie dog colonies, and there are significant noxious weed problems and bare ground that is susceptible to soil erosion. Prairie dogs have caused significant resource damage and created safety hazards from burrowing next to trails and private property. In areas where resource degradation or private property damage is occurring, prairie dog numbers may be reduced below 16 animals per acre.

The 2006 specific removal goals are outlined in the above chart. Historically our live catch of prairie dogs has been approximately 280 prairie dogs annually.

9. Financial Considerations

Prairie dog relocations are funded annually through the open space operations budget. The 2006 prairie dog removal/management budget is \$12,000. This budget is reviewed annually. Allocations may vary from year to year depending on Metro District priorities.

10. Financial Considerations

The Black-tailed Prairie Dog Conservation Plan was implemented in spring 2000 and revised in June 2006. We have had excellent success in receiving exemptions from the U.S. Fish & Wildlife Service to relocate prairie dogs to the Federal Ferret Recovery Program. We continue to maintain healthy prairie dog colonies in Highlands Ranch.

11. Monitoring and Evaluation

The nine prairie dog colonies in Metro District-owned open space areas are monitored on an ongoing basis and formally counted three times per year.

2006 Colony Management Actions	
<ul style="list-style-type: none"> • East Big Dry Creek (west) <ul style="list-style-type: none"> - Seeded - Site survey - Addition of soil amendment - Mechanical weed management - Seeded • East Big Dry Creek (east) <ul style="list-style-type: none"> - Site survey 	<ul style="list-style-type: none"> • Saddle Ranch <ul style="list-style-type: none"> - Site survey - Mechanical weed management - Backfilled holes four times in and adjacent to sports field - Used garlic and urea based repellent (Shake Away) to deter activity on sports field - Exterminated burrows in and within 50 feet of sports field
<ul style="list-style-type: none"> • Spring Gulch at Foothills Trail <ul style="list-style-type: none"> - Site survey - Mechanical and chemical weed management - Addition of soil amendment - Seeded 	<ul style="list-style-type: none"> • Spring Gulch at Highlands Ranch Pkwy <ul style="list-style-type: none"> - Planting of shrubs - Site survey - Mechanical weed management
<ul style="list-style-type: none"> • Dad Clark at Northridge <ul style="list-style-type: none"> - Site survey 	<ul style="list-style-type: none"> • Vista/Falcon Trail <ul style="list-style-type: none"> - Site survey - Mechanical weed management - Raptor pole improvements
<ul style="list-style-type: none"> • Big Dry Park <ul style="list-style-type: none"> - Seeded - Site survey - Addition of soil amendment 	<ul style="list-style-type: none"> • Plum Valley at Santa Fe Drive Rouge colony slated for removal <ul style="list-style-type: none"> - Seeded - Site survey
<ul style="list-style-type: none"> • Wildcat Trail Utility Sub-station Rouge Colony Slated for Removal <ul style="list-style-type: none"> - Site survey 	<ul style="list-style-type: none"> • Barn Owl Rouge colony slated for removal <ul style="list-style-type: none"> - Site survey

For more information, please contact:

Bill Dailey
 Natural Resource Manager
 720-240-5924
 bdailey@highlandsranch.org

Updated August 31, 2006