

# PRAIRIE DOG POLICY



# FOR CITY NATURAL AREAS

*March 1998*

Prepared by

Prairie Dog Policy Review Committee

Phil Murphy, Committee Chair (Natural Resources Advisory Board Chair)

Bill Bertschy (City Council)

Darin Atteberry (Assistant City Manager)

Karen Mancini (Natural Resources Department)

Phil Friedman (Natural Resources Advisory Board)

Randy Fischer (Natural Resources Advisory Board)

Bill Miller (Natural Resources Advisory Board)

Virgil Taylor (Parks Division)

Lance Freeman (Parks & Recreation Board)

Del Price (Parks & Recreation Board)

Jerry Craig (Colorado Division of Wildlife)

Gene Schoonveld (Colorado Division of Wildlife)

Ken Gage (U.S. Dep. Health & Human Serv., Centers for Disease Control)

Rich Grossman (Larimer County Environmental Health Dep.)

Bill Andelt (Colorado State University Extension Wildlife Program)

Ray Hogler (Pineridge neighbor)

Linda Cain (Sierra Club)

William Terry (interested citizen)



City of Fort Collins  
Community Planning and Environmental Services  
Natural Resources Department  
281 N. College Avenue, P.O. Box 580  
Fort Collins, CO 80522-0580  
Phone: (970) 221-6600

**For Further Information or to Request Additional Copies of this Report, Contact:**

**Karen Mancini  
City of Fort Collins  
Natural Resources Department  
281 N. College Ave.  
P.O. Box 580  
Fort Collins, CO 80522-0580  
Phone: (970) 221-6310  
E-Mail: [kmanci@ci.fort-collins.co.us](mailto:kmanci@ci.fort-collins.co.us)**

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## EXECUTIVE SUMMARY

In May 1997, the City planned to exterminate prairie dogs in narrow buffer areas on the edges of several natural areas where colonies were expanding into residential areas. Less than 1% of City-owned prairie dog colonies on natural areas were targeted for fumigation. A group of people opposed to the killing of prairie dogs requested that City Council cancel the fumigation. Fumigation was delayed until the group had relocated some of the prairie dogs. Due to this controversy, the Natural Resources Advisory Board (NRAB) forwarded a recommendation to City Council that the City examine its current prairie dog policies. A Prairie Dog Policy Review Committee made up of City staff and various members of the community was formed to accomplish this task.

Each Committee member was provided a 930-page notebook of prairie dog ecology and management material. The notebook included the results of a "Prairie Dog Management Questionnaire," which Natural Resources staff sent to 50 agencies along the Front Range in July 1997 (see Appendix A) and a summary of "Current Policies and Guidelines" (see Section II), as well as "Current Practices and Techniques" (see Section III) used by the City to manage prairie dogs.

The Committee discussed the City's current prairie dog policies during four evening meetings from September through November. In general, they felt that the City's prairie dog policy was not clearly articulated in current documents and that the policies related to prairie dogs needed to be better defined.

The Committee developed their own philosophy statement regarding prairie dog management (see Section IV) and formulated 33 policy statements to guide actions taken by the City of Fort Collins to maintain prairie dog colonies on City natural areas (Section V). The policy statements include the following topics: Policy Application, Land Protection, Education, Natural Control, Research and Experimentation, Barriers, Relocation, Disease Control, and Fumigation.

Public comments were received on the proposed policies via an open house in mid-November followed by an additional comment period. Comments were received from 25 individuals (see Appendix B). City staff comments were requested through two interdepartmental teams that guide management of natural areas; both teams approved the proposed Prairie Dog Policy. Staff from the City Attorney's and Risk Management offices also commented on the policy and provided suggested changes.

The NRAB and Parks and Recreation Board held a joint meeting on December 3, 1997 to discuss the proposed Prairie Dog Policy. Both boards further discussed the policy at subsequent separate board meetings and unanimously approved the proposed Prairie Dog Policy with minor editorial revisions (Parks and Recreation Board: January 28, 1998; NRAB: February 4, 1998). The revised policy was submitted to City Council who unanimously adopted the Prairie Dog Policy with no additional changes at their March 10, 1998, Council Session (see Resolution 98-37, Appendix C).

# CONTENTS

I. BACKGROUND.....	1
II. CURRENT POLICIES AND GUIDELINES.....	2
Natural Areas Policy Plan.....	2
Natural Areas Management Guidelines.....	2
City Animal Code.....	3
City Land Use Code.....	4
III. CURRENT PRACTICES AND TECHNIQUES.....	5
Land Acquisition.....	5
Barrier and Predator Enhancement Methods.....	5
Relocation.....	6
Fumigation.....	7
Costs.....	7
Research Efforts.....	8
IV. COMMITTEE POLICY REVIEW.....	9
Philosophy Statement.....	9
V. PRAIRIE DOG POLICY.....	11
Policy Application.....	11
Land Protection.....	11
Education.....	12
Natural Control.....	12
Research and Experimentation.....	12
Barriers.....	12
Relocation.....	13
Disease Control.....	14
Fumigation.....	14
VI. IMPLEMENTATION SCHEDULE.....	15
VII. REVIEW AND APPROVAL STEPS.....	16
Public Input.....	16
Staff Input and Approval.....	16
Citizen Board Approval.....	16
City Council Adoption.....	17
Appendix A: PRAIRIE DOG QUESTIONNAIRE SUMMARY (3 pp.)	
Appendix B: SUMMARY OF PUBLIC COMMENTS (4 pp.)	
Appendix C: COUNCIL RESOLUTION (2 pp.)	

## **I. BACKGROUND**

Management of prairie dogs is a very controversial issue in Fort Collins and elsewhere along the Front Range and likely will remain so. Some people do not want to see the City kill a single prairie dog, no matter what the reason, while others urge eradication of all prairie dogs within the City. In between are many residents who support conservation of prairie dogs and prairie ecosystems, but understand the need to do limited prairie dog population control--to minimize conflict with adjacent landowners, or to restore degraded habitat to native grassland so that the large prairie dog colonies remain intact and healthy.

In late spring 1997, the City planned to exterminate (by the use of Fumitoxin) prairie dogs in narrow buffer areas on the edges of several natural areas where colonies were expanding into residential areas. Landowners had requested assistance from the City in controlling expansion of the colonies onto private land. Less than 1% of City-owned prairie dog colonies on natural areas were targeted for fumigation. In all cases this was to install or maintain prairie dog barriers on the urban fringe that serve to decrease movement of prairie dogs onto adjacent private property.

A group of people opposed to the killing of prairie dogs made a request to City Council to cancel the fumigation. Fumigation was delayed until the Prairie Ecosystem Conservation Alliance (PECA) could relocate some of the prairie dogs to the Rocky Mountain Arsenal. PECA was not able to relocate all prairie dogs; thus, the City fumigated remaining prairie dogs in the buffer areas.

Due to the controversy created by the fumigation, the Natural Resources Advisory Board (NRAB) forwarded a recommendation to City Council that the City examine its current prairie dog policies. Several NRAB members met with representatives of City Council, City Manager's Office, Parks, and Natural Resources to establish a procedure to re-examine the City's prairie dog management policies. The group made a decision to establish a Prairie Dog Policy Review Committee made up of a City councilmember, City staff, other professionals in the community, representatives of the NRAB and Parks and Recreation Board, and other interested citizens.

In preparation for the review by the Committee, the Natural Resources Department prepared a summary of current policies, guidelines, practices, and techniques used by the City of Fort Collins to manage prairie dog ecosystems. The Prairie Dog Policy Committee felt that this information was important to provide in this document prior to the presentation of their proposed Prairie Dog Policy.

## **II. CURRENT POLICIES AND GUIDELINES**

The City of Fort Collins currently has adopted a number of policies and guidelines that relate to prairie dog conservation and management.

### **Natural Areas Policy Plan**

The City's policies and guidelines regarding prairie dog conservation and management stem from the 1992 Natural Areas Policy Plan (NAPP). That document established the following overall goal:

*Preserve and protect natural areas within Fort Collins and the Urban Growth Area to provide habitat essential to the conservation of plants, animals, and their associated ecosystems and to enrich the lives of citizens by providing opportunities for education, scientific research, nature interpretation, art, fishing, wildlife observation, hiking, and other activities.*

The NAPP established several objectives and a variety of policies that in essence form a "toolbox" for natural area conservation in Fort Collins. The various conservation tools include land acquisition, regulatory programs, habitat restoration, animal population control, minimizing conflict between people and wildlife, public education and information, research, and a variety of other action strategies that are needed to protect and provide long-term stewardship for key natural areas in the community.

The NAPP identified the large remaining grassland sites and prairie dog colonies as critical conservation sites in the community. The City's goal for these sites is to protect and manage them so that they may support extensive prairie ecosystems with prairie dog colonies that benefit numerous other native wildlife species, to minimize wildlife conflicts with adjacent landowners, and to provide a high quality wildlife viewing experience for the citizens of Fort Collins.

### **Natural Areas Management Guidelines**

The City's general policies regarding prairie dog management are contained within the "General Management Guidelines for City-owned Open Spaces and Natural Areas." The plan was written by the Open Lands Natural Areas Management Team (OLNA), which consists of staff from Forestry, Natural Resources, Parks, Park Planning and Development, Recreation, and Stormwater. The guidelines received extensive public and citizen board review. The Parks and Recreation Board and Natural Resources Advisory Board both unanimously approved the guidelines in early summer 1994.

City Council reviewed and commented on the guidelines at their July 26, 1994, Council Worksession. During the worksession, City Council members directed staff that there was no need for further formal adoption of the guidelines by Council nor a need for Council review or formal adoption of individual site management plans. The general guidelines were revised after the Council review and finalized in October 1994. An update of the guidelines occurred in September 1995; however, no request was made to change the prairie dog

management policy item at that time.

The guidelines for prairie dogs on sites classified as Sensitive Natural Areas (these include all sites currently containing large prairie dog colonies) state:

*Maintain existing large colonies. Remove (1) within buffer areas along bordering property if City staff determines this is necessary to prevent damage to such property, (2) if necessary for grassland restoration, or (3) if mandated by Larimer County Environmental Health Department for plague outbreak in the colony on the site.*

On sites classified as Urban Natural Areas (sites not containing a particularly sensitive wildlife or plant species--none currently contain prairie dogs), the guidelines for prairie dogs state:

*Remove unless a small, controlled colony is designated to provide educational and research values.*

On sites classified as Restorative Natural Areas, the guidelines for prairie dogs state:

*Remove unless goal of restoration includes creating or maintaining a large colony.*

On sites classified as Greenways (small stormwater detention areas, mowed 3-4 times a year) and Parks (developed and undeveloped), the guidelines for prairie dogs state:

*Remove to protect on-site vegetation.*

More detailed, site specific management strategies for prairie dog control are (and will be) contained in management plans for sites containing prairie dogs (e.g., Cathy Fromme Prairie Management Plan, June 1995; Foothills Natural Areas Management Plan, January 1997). Site plans also receive extensive public review and approval by Parks and Recreation Board and Natural Resources Advisory Board.

### **City Animal Code**

In 1995, the City reviewed and revised their Animal Ordinance. To comply with Environmental Protection Agency (EPA) requirements and to clarify the City Code, the code regarding use of poisons was revised to read:

*No person shall poison any animal or distribute poison in any manner with the intent to poison any animal, except that mice, rats, or any rodents other than hamsters, guinea pigs and squirrels may be poisoned by the use of poisonous substance approved for such use by the United States Environmental Protection Agency. This prohibition shall not apply to persons regularly engaged in the business of fumigation or pest extermination and licensed by the state of Colorado; provided, however, that such persons may use only fumigants to destroy prairie dogs or other burrowing rodents.*

Two other commonly used extermination methods are not allowed in the Fort Collins urban

area: (1) use of poison grain and (2) shooting prairie dogs. Poison grain (zinc phosphide) is placed above ground at burrow entrances. Other non-target animals (e.g., birds, other rodents) will die if they eat the poison grain. The EPA prohibits the use of poison grain in urban areas due to the chance of small children picking up the poison grain and eating it, as well as pets eating the grain or birds/rodents above ground that have died from eating the poison grain. The poison could remain viable in the grain some time after application above ground. Animals die more slowly by ingesting poison grain than by the fumigation method. Death by ingesting poison grain can take up to 30 hours.

The City does not allow the use of firearms for killing prairie dogs or any other wildlife species unless under very controlled conditions and conducted by Colorado Division of Wildlife (CDOW) officers (e.g., in the case of a mountain lion or bear immediately threatening human life where the animal cannot be tranquilized and moved to another area). While many believe shooting the animals is the most humane way to kill prairie dogs, the City does not feel that this is appropriate within Fort Collins.

### **City Land Use Code**

In March of 1997, the City adopted City Plan and the associated Land Use Code to guide and regulate new developments. Prairie dogs were specifically addressed in Article 3, General Development Standards, under “Protection of Wildlife Habitat and Ecological Character” with regard to prairie dog removal from sites to be developed:

*Prairie dog removal. Before the commencement of construction on the development site, any prairie dogs inhabiting portions of the site within the limits of development shall be relocated or humanely eradicated by the developer by city approved methods as set forth in Chapter 4 of the Code, and when applicable, as reviewed and approved by the Colorado Division of Wildlife.*

In addition, the issue of wildlife conflict was also addressed in Article 3, making the developer responsible for providing mechanisms to minimize the conflicts:

*Wildlife conflicts. If wildlife that may create conflicts for the future occupants of the development (including, but not limited to, prairie dogs, beaver, deer and rattlesnakes) are known to exist in areas adjacent to or on the development site, then the development plan must, to the extent reasonably feasible, include provisions such as barriers, protection mechanisms for landscaping and other site features to minimize conflicts that might otherwise exist between such wildlife and the developed portion of the site.*

However, this revision does not include developments approved prior to City Plan (prior to March 28, 1997).

### **III. CURRENT PRACTICES AND TECHNIQUES**

#### **Land Acquisition**

Although the City once kept prairie dogs out of their open spaces entirely, in the late 1980's, the policy was changed to allow prairie dogs to expand on City lands if sites were suitable in size and habitat components to eventually support a large prairie dog colony. By winter 1991-92, prairie dogs occupied about 2,065 acres within and adjacent to the Fort Collins Urban Growth Area; only about 13% of this land was protected as City natural area, the rest of the acreage was primarily privately-owned land awaiting development.

With the adoption of the NAPP in 1992 and subsequent voter-approved sales tax for natural areas, the City began to actively pursue acquisition of additional suitable lands to preserve large prairie dog colonies on property that would be eventually developed. To date, the City owns about 1,700 acres of prairie dog colonies in the natural areas system. The City has not been able to acquire all the 2,065 acres of prairie dog colonies determined in 1991-92 to be of value for winter raptors due to City policy that land is only acquired from willing sellers. In all cases, the City attempted to purchase these lands; however, some landowners preferred to develop the land instead of to sell to the City for ultimate preservation as a natural area.

The City's goal is to make up for the loss of these lands by purchasing land within the Fort Collins-Loveland corridor that currently does not contain prairie dogs, restoring land to native prairie, and allowing prairie dogs to expand into suitable areas to make up for prairie dog habitat that has been lost to development. Currently, the City owns such a suitable site, Coyote Ridge Natural Area, at the base of the foothills and south of the Landfill. Prairie dogs are already starting to colonize the site since City purchase; a 315-acre old wheat field could be reseeded with native grasses and wildflowers before the colony expands much further to make up for the acreage lost to development.

#### **Barrier and Predator Enhancement Methods**

At the request of adjacent landowners, the City has used a number of techniques to try to reduce the amount of prairie dog movement to adjacent private property. These include the installation of solid vinyl barrier fence (prairie dogs prefer to see their surroundings to be on the look-out for predators, so tend to not burrow near barriers), berming (earthen barriers), shrub plantings (to eventually serve as a more aesthetically pleasing barrier fence, hiding sites/cover for prairie dog predators, and additional wildlife habitat for songbirds, etc.), straw bales (hiding sites/cover for coyotes and fox that prey on prairie dogs), and raptor perches (for avian predators). These methods, while serving successfully to reduce the need for eradication, cannot always prevent prairie dogs from moving into unsuitable areas. Barriers may never provide a complete deterrent (obstruction) to prairie dog movement into adjacent areas.

Vegetative barriers and berming are long-term methods to limit prairie dog expansion; vinyl barriers are short-term methods (5-year life of material). However, none of these methods can ever be considered to be a complete barrier to prairie dog movement. The intended use of barriers and predator enhancements is to reduce the amount of eradication. Prairie dogs

can get around anything unless a site is totally enclosed with a 3-foot tall, solid barrier buried up to 14 feet underground and made of concrete or other material that they could not penetrate. This would be impossible to build except at a small colony not intersected by any drainages (water must be able to leave a site), roads, or trails. Young-of-the-year prairie dogs will move up to 5 miles to colonize a new site once they are “kicked” out of their birth colony by dominant adults; they will use roadways, trails, and drainages to access new sites.

## **Relocation**

Many people, concerned about each individual prairie dog, have made requests to the City that no prairie dog ever be eradicated or, at the very least, to only relocate prairie dogs. The City has worked with the Prairie Ecosystem Conservation Alliance (PECA) from Aurora, Colorado, to relocate prairie dogs on a proposed parking lot site. (Note: Relocation did not take place at that time because the City decided to move the parking lot to a different location where prairie dogs would not be impacted by the construction.) Unfortunately, relocation sites are difficult to find. Few agencies and private landowners are willing to accept prairie dogs from another location along the Front Range. If prairie dogs are needed to recolonize their sites (usually because plague has eradicated on-site colonies), agencies prefer to bring in prairie dogs from the immediate area--their experiences indicate that this is more successful and less likely to result in a plague outbreak at the colony.

The OLNA Management Team and other professionals have some major concerns regarding prairie dog relocation. These include: (1) human health risks (potentially exposing volunteers to plague and other diseases carried by prairie dogs because animals are handled by volunteers); (2) stress/death to relocated animals (animals killed during capture, which involves flooding burrows with water, and resulting deaths during movement to new colony and after being released on new site); (3) impacts to prairie dog populations by moving Fort Collins' animals to Boulder or Denver area (e.g., introduction of potentially new diseases and species of fleas to colonies not adapted as the Fort Collins populations are); (4) disruption of social structures of tightly knit prairie dog family groups (i.e., coterries) that may increase mortality; (5) absence of viable relocation sites; and (6) public perception that if the City uses relocation, then only relocation will be used (i.e., if sites are no longer available for relocation, or not enough animals can be removed by volunteers, then the City will not be able to use fumigation to reduce the conflicts with adjacent neighbors).

Relocation of prairie dogs includes capturing the animals by hand as they are flushed out of their burrows with water mixed with detergent. It is possible that the timing could be such that the animals/fleas are carrying plague, but that the prairie dogs have not succumbed to the disease yet. Thus, volunteers or staff could contract plague. Although not probable, this is a possibility.

Prairie dogs, as well as other rodents, can carry plague--a disease transmitted by fleas. The disease, caused by a bacterium, can be fatal to humans if not treated; treatment with antibiotics is effective during the early stages of the disease. The disease is transmitted to people through flea (possibly introduced by domestic dogs and other pets) bites or direct contact with infected animals (e.g., prairie dogs, ground squirrels, domestic cats). Normally, people do not come into direct contact with prairie dogs or their fleas. In the past 5 years,

plague associated with prairie dogs has been found at several colonies within Fort Collins. So far in 1997, plague has been detected at six sites in Larimer County; two sites were City-owned natural areas. Larimer County Environmental Health Department reported three cases of plague in humans over the past 4 years (one case was attributed to prairie dogs). There have been human deaths in Colorado from plague carried by prairie dogs.

### **Fumigation**

To comply with EPA requirements and City Code, the only method of extermination available to the City is fumigation. Aluminum phosphide tablets (Fumitoxin and other brands) are dropped down the holes, holes are plugged with newspaper, and all animals in the burrows die. Pest exterminators do not place the tablets down holes occupied by non-target animals (e.g., burrowing owls, badgers, foxes). Exterminators are trained in identifying burrows used by these animals by the type of excrement around the burrow and burrow size, type of opening, etc. A poison gas is soon released by the tablet and the poison dissipates very quickly and is not released to the atmosphere. To be effective, the tablets can only be used when soil temperature and soil moisture are adequate for quick release of the poison. Most prairie dogs are killed within the burrow. However, if individual burrows are not moist or warm enough, an animal may come to the surface before dying. Exterminators remain on site to be sure if this happens that these animals are killed as quickly as possible and that their bodies are not left above ground. The City's experience has been this is a very rare occurrence.

### **Costs**

Land acquisition of sites containing prairie dogs has been the largest expense of the City's efforts to protect this ecosystem, but an important tool to ensure continued existence of the colonies. Recent land prices in this category have ranged from \$2,100-\$10,000/acre. To date, the City has spent over 6 million dollars acquiring sites that contain prairie dog colonies. The NAPP also directs the City to focus on acquisition of many other types of habitats in need of protection, including riparian sites along the Poudre River and other stream corridors, wetlands, and foothills forest habitat. Although the City currently has several sources of funds to purchase natural areas, funds are limited and careful evaluation of site priorities will continue to balance the need to acquire lands to protect the diversity of wildlife and native plant communities now present in the Fort Collins area.

Site management costs for prairie dogs has also been expensive for the City to undertake. Costs for vinyl and minimal vegetative barriers approach \$20,000/mile; installation has been done by Youth Corp and volunteers with City staff supervision. Costs for fumigation last year was around \$4,000 (\$4/burrow opening). Relocation costs (City and PECA) were around \$15/animal. The number of animals/burrow opening varies highly; data obtained from mapping at the Cathy Fromme Prairie in 1995 averaged 1 animal/3 burrows in spring. Burrows flushed for relocation also need to be fumigated if the relocation is done when young prairie dogs are still below ground. Costs for restoring native shortgrass prairie vary depending on size of site (higher for smaller acreages), soil additives, reseeding needed, and if the site is hydroseeded. Recent City projects have varied from about \$300 to \$1,000/acre (does not include staff time or watering).

Again, funds are limited and with all the needs for our natural areas, the City must balance these management costs against other priorities.

### **Research Efforts**

Since the early 1990's the City has been actively working with other agencies to determine the best ways to manage prairie dogs and to protect the larger prairie dog colonies. Staff from federal and state agencies, including the U.S. Fish and Wildlife Service, U.S. Centers for Disease Control, Midcontinent Ecological Research Center, CDOW, and CSU, have helped us to identify key areas in need of protection, buffer areas needed to provide continued high wildlife use (particularly birds of prey), and methods to manage colonies to enhance wildlife values, decrease impact and conflicts with human use, and minimize need for lethal control. These agencies, as well as other county and municipal governments (e.g., Larimer County, Boulder County, Jefferson County, City of Boulder, City of Westminster) meet periodically to discuss the latest research efforts regarding prairie dog management. The City is also in frequent contact with these agencies on an individual basis regarding prairie dog issues. All participating agencies recognize the need to protect urban prairie dog colonies along the Front Range. Agencies understand that this is critical particularly because most large prairie dog colonies in rural, agriculture-dominated eastern Colorado have been eradicated in favor of crop and grazing interests.

The City has also been involved in several local research efforts to help the Fort Collins community, as well as others, manage prairie dog colonies. For the past 3 years, the City has been working with Remote Sensing Research, Inc. to map density and aerial extent of colonies on several key sites. The City has also worked with Colorado State University's Cooperative Extension Wildlife Program on a project that determined attitudes of Fort Collins residents toward prairie dogs and several projects to research non-lethal alternatives to controlling prairie dogs at the urban fringe.

The longest local research project has been the annual Winter Raptor Survey, conceived and implemented by City Natural Resources staff, with input from raptor experts from CSU, CDOW, and FWS staff. Over the past 6 years, the City has annually compiled data collected by hundreds of trained volunteers to determine which prairie dog sites in Fort Collins are the most beneficial to wintering birds of prey. In addition, the City has employed raptor biologists to study night roosts of wintering bald eagles and ferruginous hawks.

#### **IV. COMMITTEE POLICY REVIEW**

The Prairie Dog Policy Review Committee, in preparation for reviewing the City's current prairie dog policies, was given a 930-page notebook of prairie dog ecology and management material prepared by staff with materials provided by the NRAB, City Council, concerned citizens, and Natural Resources. The notebook contained the results of a recent questionnaire that Natural Resources sent to 50 agencies along the Front Range (Appendix A). The review of other agencies indicated that they are also struggling to devise the best methods to reduce the conflicts of prairie dogs with adjacent landowners. Nearly all the agencies use fumigation to some degree; quite a few agencies have tried various barrier methods with some long-term success at reducing prairie dog movement to adjacent properties.

The Prairie Dog Policy Review Committee met four times during September through November. Each meeting lasted from 3-4 hours. In general, the Committee felt that City's policy was not clearly articulated in current documents and that the policies related to prairie dogs needed to be better defined, particularly relating to when and how to control prairie dogs. Some members of the committee also expressed a need for a stronger public education component to the policy. They recognized the responsibility that the City has to deal with wildlife conflict issues, but at the same time, they felt the community and adjacent neighbors needed to partake in the responsibility of controlling the conflicts and in the financial aspects of funding barriers and control.

Understanding the need to find methods to alleviate conflicts of prairie dogs invading adjacent lands, some members of the Committee were opposed to fumigation while others had some major reservations regarding the relocation option. Chief among those were the potential to move plague-infected animals and the fact that in attempting to save prairie dogs in the Fort Collins community, prairie dogs at the relocation site may be adversely affected.

The Committee developed the following philosophy statement regarding prairie dog management.

##### **Committee Philosophy Statement**

The natural areas program within the City of Fort Collins was established to protect and preserve open land and wildlife. Prairie ecosystems have been a significant part of the acquisitions made over the last several years. As part of a prairie ecosystem, the prairie dog has been recognized as an important wildlife species having critical interrelationship with other plants and animals. In establishing this prairie dog management policy, the City of Fort Collins is committed to acquiring, maintaining, and enhancing vital prairie dog habitat along with providing for the general welfare and conservation of the prairie dogs themselves.

Maintaining prairie dogs within an urban setting results in many wildlife-human conflicts. The result of these conflicts is that some form of management must occur for both prairie dogs and people. The emphasis of this policy is to allow prairie dogs to exist naturally with minimum levels of human caused management. In implementing management of prairie dogs on City-owned natural areas, this policy outlines the following processes for control in order of priority:

- (1) Natural control - enhance natural predation.
- (2) Barriers - use human created and managed barriers (e.g., artificial or vegetative) to restrict prairie dog movement.
- (3) Relocation - moving prairie dogs from one site to available receiving areas.
- (4) Fumigation - this lethal method is the last resort for management.

The City of Fort Collins will continue to partner with other public and private organizations in prairie dog management and research.

This policy recognizes that plague is an important factor for both the health of people and prairie dogs. The preferred mechanism for dealing with plague outbreaks is to dust the prairie dogs with a flea insecticide. The flea is the carrier of the plague bacterium. The City will continue to coordinate closely with the Larimer County Health Department to reduce potential outbreaks.

## **V. PRAIRIE DOG POLICY**

The Prairie Dog Policy Committee formulated the following 33 policy statements to guide actions taken by the City of Fort Collins to achieve the recommended goals and objectives for maintenance of City-owned prairie dog colonies. The Committee's objective was to develop policies that apply only to designated natural areas managed by the Natural Resources Department. They do not apply to sites managed by other City departments. Prairie dog control on these sites will be determined by the managing department and will be conducted in accordance with the City Code.

### **Policy Application**

- PA-1 The Prairie Dog Policy applies only to designated natural areas managed by the Natural Resources Department. They do not apply to sites managed by other City departments. Prairie dog control on these sites will be determined by the managing department and will be conducted in accordance with the City Code.
- PA-2 To improve communication, one department, Natural Resources, will be responsible for implementing the Prairie Dog Policy with one staff member appointed by the Natural Resources Director as the point of contact regarding prairie dog issues on City-owned natural areas.
- PA-3 The Natural Resources Advisory Board will be responsible for reviewing the Prairie Dog Policy on a periodic basis (not to exceed 5 years) and will advise the City Manager's Office and the Natural Resources Department if a more extensive review or change in policy is warranted.

### **Land Protection**

- LP-1 Continue to acquire, maintain, and manage land that contains existing large (>50 acres) prairie dog colonies in the Fort Collins area.
- LP-2 Continue to seek the cooperation of other agencies (e.g., Larimer County, City of Loveland, Colorado Division of Wildlife) to acquire, maintain, and manage land that contains existing large (>50 acres) prairie dog colonies within the open land corridor between Loveland and Fort Collins.
- LP-3 Continue to acquire and manage large grassland or cropland parcels in the Fort Collins area that can be restored to native shortgrass prairie and eventually support large (>50 acres) prairie dog colonies.
- LP-4 Continue to seek the cooperation of other agencies (e.g., Larimer County, City of Loveland, Colorado Division of Wildlife) to acquire and manage large (>50 acres) grassland or cropland parcels within the open land corridor between Loveland and Fort Collins that can be restored to native shortgrass prairie and eventually support large prairie dog colonies.
- LP-5 Continue to acquire or otherwise protect through regulation natural area corridors between

prairie dog colonies to maintain a movement corridor for mammalian predators.

### **Education**

- ED-1 Through a variety of educational and interpretive strategies, disseminate information, including but not limited to, the following subjects:
- o The City's Prairie Dog Policy.
  - o Natural history and value of prairie dog colonies locally and regionally.
  - o Visitor use of sites containing prairie dogs.
  - o Pets and prairie dogs.
  - o Rights and responsibilities of living next to natural areas.
  - o Plague.
  - o Control methods (barriers, etc.).
  - o Relocation information and restrictions (including CDOW and CDC).
  - o Research (e.g., experimental sterilization, winter raptor survey, etc.).

### **Research and Experimentation**

- RS-1 The City of Fort Collins will continue to partner with other public and private organizations in prairie dog management, research, and experimentation.

### **Natural Control**

- NC-1 Continue to enhance natural predation of prairie dogs on City-owned sites by installing predator enhancement features (e.g., low and high artificial raptor perches, tree plantings for future raptor perches, straw bale placement and shrub plantings for coyote and fox cover).
- NC-2 Encourage and assist landowners to enhance natural predation of prairie dogs by installing predator enhancement features (e.g., low and high artificial raptor perches, tree plantings for future raptor perches, straw bale placement and shrub plantings for coyote and fox cover) on private land next to City-owned sites.

### **Barriers**

- BA-1 Continue to maintain, build, and improve existing prairie dog barriers on City sites and continue to use local volunteer groups to assist in these endeavors.
- BA-2 Continue to investigate new artificial and vegetative barrier designs and experiment with new designs on limited study sites.
- BA-3 In choosing new barrier designs, maintain sensitivity to human visual aesthetics and natural functions of site (e.g., drainage).
- BA-4 Require new developments next to existing City-owned prairie dog colonies to construct and maintain prairie dog barriers on private land, as per City Plan Land Use regulations for development plans submitted after March 28, 1997.

- BA-5 Encourage existing developments (development plans submitted prior to March 28, 1997) next to existing City-owned prairie dog colonies to construct and maintain prairie dog barriers on private land as opposed to on City-owned land.
- BA-6 Require requests from private landowners for installation by the City on City property of new prairie dog barriers be made in writing to the Natural Resources Department with signatures of approval by the majority of landowners immediately adjacent to the proposed barrier.
- BA-7 Preferred prairie dog removal method for barrier establishment and protection will be by relocation, but fumigation will be used if relocation option is not feasible.

### **Relocation**

- RE-1 Prairie dogs may be relocated only if (a) suitable recipient sites are available; (b) plague is not known to be present in the donor and recipient sites; (c) expertise is available to relocate the animals; (d) the appropriate CDOW permits are issued; and (e) donor and recipient sites have been dusted with an insecticide by a licensed applicator.
- RE-2 Relocation may be used to remove prairie dogs at a problem area or to reintroduce them to a suitable City-owned natural area.
- RE-3 The City will continue to maintain a list of potential recipient locations for relocated prairie dogs. Non-governmental conservation groups will be encouraged to identify and develop additional sites that meet CDOW approval.
- RE-4 The Natural Resources Director will designate and contact a local organization in writing to provide the organization an opportunity to coordinate and disseminate information about relocation needs as the need arises.
- RE-5 Organizations that relocate prairie dogs shall use only trained relocators that have signed a City of Fort Collins release of liability form before participating in the relocation. The relocation organization must obtain all appropriate permits including the CDOW permit and written notification to Larimer County Environmental Health Department.
- RE-6 To ensure that dependent young prairie dogs are not left in burrows, relocation should be avoided from March 1-May 31st. The Colorado Division of Wildlife does allow prairie dog relocation during these months but only if the burrows are fumigated immediately after relocation activities cease. Thus, to minimize the need for lethal control measures, relocation activities should not occur during March, April, and May. Preferred months for relocation are June through September. Flushing burrows with water during colder months increase the stress on the animals, which could result in pneumonia.
- RE-7 Relocated prairie dogs may not be moved to locations within 1/4-mile of a residential development.
- RE-8 Prairie dogs relocated to sites that do not contain recently (within 1 year) active prairie dog

burrows must be prepared by the relocation organization prior to relocation by production of artificial burrows through augering or some other method acceptable to the CDOW.

- RE-9 City of Fort Collins natural areas will only be used as relocation sites if they have suitable habitat (i.e., established native shortgrass prairie) to support a potential of at least 50 acres of prairie dogs and do not currently contain prairie dogs within 1/4 mile of the relocation site. A CDOW permit is required. Sites where plague has wiped out an existing colony will be given highest priority.

### **Disease Control**

- DC-1 Fumigation will not be used as the primary method for preventing the spread of plague. However, burrows known or suspected to be plague-positive, and burrows in the immediate vicinity adjacent to residential areas, will be dusted with an insecticide to kill the fleas.
- DC-2 Neighbors in the vicinity of plague-positive prairie dogs will be notified by the distribution of information packets and/or through the news media.
- DC-3 Natural areas known to contain prairie dogs that have died from, or are known to be infected with, plague may be closed to recreational use. The use of paved trails in those areas will depend on the extent of the plague. If the trails are permitted to remain open, specific restrictions may be implemented.

### **Fumigation**

- FU-1 The City may use fumigation to remove prairie dogs from City-owned natural area sites only under the following conditions:
- o The Natural Resources Director has designated and contacted a local conservation group at least 6-weeks prior to fumigation to provide the organization an opportunity to coordinate and disseminate information about the need to relocate prairie dogs and:
    - a. Removal of prairie dogs is needed to maintain the integrity of the prairie dog barrier; or
    - b. Removal of prairie dogs is needed to restore degraded grassland dominated by non-native grasses to native shortgrass prairie; native seed needs a period of time to establish roots before grazing by prairie dogs is allowed. (Newly established native grasses have shallow roots and are uprooted by prairie dogs in areas where these plants are the only food source.) No more than 50 acres of prairie dogs will be removed for this reason in any one year; or
    - c. Prairie dogs have begun invading a natural area site that is unsuitable to support a large prairie dog colony (e.g., a site dominated by non-native grasses; a site where presence of prairie dogs would impact other animals or plants in need of protection; a site too small and surrounded by private lands where establishment of a colony could pose serious human health or wildlife conflict concerns.

The extermination can proceed prior to the expiration of the 6-week period if the local conservation group notified about the proposed fumigation provides a written waiver of the relocation option.

- o At the discretion of the City Manager to prevent imminent threat to human health or the environment, or upon the request of Larimer County Environmental Health Department, U.S. Department of Health and Human Services' Centers for Disease Control, or the Colorado Division of Wildlife, or other agency with jurisdiction to make such a request, emergency fumigation may proceed. In such event, the City Manager will report the emergency fumigation event to the City Council at the next regularly scheduled meeting of the Council.

FU-2 Fumigation will only be conducted by a certified applicator and in a manner consistent with labeling requirements. Fumigation is most effective when soil moisture levels are high and soil temperature is above 40°F--usually late April to early June in Fort Collins.

## VI. IMPLEMENTATION SCHEDULE

Many of the 33 policy statements formulated by the Prairie Dog Policy Committee have been a part of the practices and techniques used by the City since 1992 as part of implementing the Natural Areas Policy Plan (Table 1). The Natural Resources Department will be responsible for implementing the proposed Prairie Dog Policy. Once City Council adopts the Prairie Dog Policy, the policy will replace prairie dog management guidelines for sites managed as natural areas by the Natural Resources Department as presented in the "General Management Guidelines for City-owned Open Spaces and Natural Areas." Implementation will be funded through the City's Natural Areas Program (primarily funded through portions of current sales tax revenues: the Fort Collins 1997 Building Community Choices Tax and Larimer County's Parks, Open Space, and Trails Tax).

<b>Table 1. Implementation Schedule for the Prairie Dog Policy Items</b>				
<b>Category</b>	<b>1992-97</b>	<b>1998</b>	<b>1999+</b>	<b>Notes</b>
Policy Application: PA-1 through PA-3)		X	X	Implementation begins immediately after Council Adoption.
Land Protection (LP-1 through LP-5)	X	X	X	Continuation of past efforts.
Education (ED-1)	X	X	X	Outreach (staff and Master Naturalists), displays, and distribution of educational material ongoing since 1992; interpretive exhibit and signs at Cathy Fromme Prairie, Public Education Plan, new brochures and information sheets in 1998; additional brochures and interpretive signs completed by 2001.
Research and Experimentation (RS-1)	X	X	X	Continuation of past efforts.
Natural Control (NC-1 and NC-2)	X	X	X	Continuation of past efforts.
Barriers (BA-1 through BA-7)	X	X	X	Continuation of past efforts, with more emphasis on encouraging existing developments to construct barriers on private land as opposed to City land; require barrier requests to be in writing.
Relocation (RE-1 through RE-9)		X	X	Implementation begins immediately after Council Adoption.
Disease Control (DC-1 through DC-3)	X	X	X	Continuation of past notification and dusting practices when necessary.
Fumigation (FU1 through FU2)	X	X	X	Continuation of past restrictions, with the added restriction of notifying local conservation groups regarding opportunity to relocate prairie dogs.

## **VII. REVIEW AND APPROVAL STEPS**

### **Public Input**

A public open house was held Monday, November 10, 1997, 5:00-7:30 p.m., at the Lincoln Center. A press release was sent to all local newspapers, radio stations, etc. An ad for the open house appeared in the Coloradoan the Wednesday and Sunday before the event. An article on the proposed changes, written by Kevin Duggan, was printed on the front page of the Coloradoan the day of the event. Thirty people attended the open house. Comments were received from 25 individuals during the comment period (November 10th-17th) (Appendix B).

Not unexpected, five individuals commented strongly that they could not support the killing of any prairie dogs by the City, while no one advocated that the City fumigate all prairie dogs on City-owned property. In addition, no one questioned the policy to pursue purchase of additional lands for prairie dogs. Six individuals urged the City to do more to control the expansion of development and/or to purchase additional lands for prairie dogs.

Methods to limit prairie dog movement through the use of predator enhancement techniques were supported by the public, while use of barriers received mixed comments due to ineffectiveness. Requiring private landowners and/or developers to construct the barriers on private land (as opposed to the City constructing barriers on City land) was advocated by six individuals.

Relocation also received mixed comments. Some individuals felt that relocation was not humane and was too "stressful" to the animals or they had misgivings about the viability of relocation as a long-term management alternative. Comments received regarding fumigation clearly indicated that most of the public felt that this technique should be very limited and the need for fumigation clearly demonstrated.

### **Staff Input and Approval**

The Prairie Dog Policy Committee requested City staff comments and approval through two interdepartmental teams that guide management of natural areas: the Open Lands Guidance Team (made up of Department Directors/Division Managers) and the Open Lands/Natural Areas Management Team (plans and implements site management plans for natural areas). Both Teams approved the policy with one minor addition to one of the items, which was incorporated by the Committee.

Staff from the City Attorney's and Risk Management offices also commented on the policy and provided suggested changes.

### **Citizen Board Approval**

The NRAB and Parks and Recreation Board (P&RB) held a joint meeting on December 3, 1997, to discuss the proposed Prairie Dog Policy. The boards further discussed the policy at subsequent meetings and unanimously approved the proposed Prairie Dog Policy with minor editorial revisions (P&RB: January 28, 1998; NRAB: February 4, 1998).

### **City Council Adoption**

The revised policy was submitted to City Council who unanimously adopted the Prairie Dog Policy with no additional changes at their March 10, 1998, Council Session (Resolution 98-37, Appendix C).



