ABSTRACT

WORK AS A NATURAL RESOURCE PLANNER WITH THE CITY AND COUNTY OF BROOMFIELD, BROOMFIELD COLORADO

By Peter Dunlaevy

The Open Space and Trails Department with the City and County of Broomfield has an ongoing need to manage their natural resources and provide planning and acquisition strategies for open space and trails. My position with Broomfield as a natural resource planner I worked directly to support these objectives. Specifically, my primary responsibilities in this position were to help develop management and master plans for key open space properties, assist with and prepare major reports and presentations for the department, and work as a liaison to the Open Space and Trails Advisory committee in all efforts and objectives.
WORK AS A NATURAL RESOURCE PLANNER WITH THE CITY AND COUNTY OF BROOMFIELD, BROOMFIELD COLORADO

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by

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I would also like to thank Dr. Sandra Woy-Hazleton for Miami University for all of her help throughout my studies at Miami, and for being so patient and accommodating whenever I have needed her help with this project. Additionally, Dr. Vincent Hand, Dr. Hay Cummins, and Dr. Jerry Green have provided invaluable advice, editing, and support in various IES courses and projects. I would also like to thank my classmate Nathan Moyer for helping to edit this report and for his ongoing friendship. Finally, I would like to thank the Miami University and the State University system of Ohio for their support of the IES program and the curriculum and resources that make it flourish.

Aside from my direct studies, I would like to thank my wife Carolyn and my parents for their constant support and motivations. Without them I would not have had the initiative or wherewithal to complete this degree and pursue my true interests in natural resource planning.
CHAPTER I

INTRODUCTION TO THE INTERNSHIP

Personal Background and Education:

I began my studies at the Institute of Environmental Science (IES) at Miami University in August of 2002. My undergraduate degree was a B.A. in Political Science from Muhlenberg College in Allentown, Pennsylvania. I completed all of my required coursework and the core curriculum by May, 2002.

There are two major requirements integrated in the core curriculum, a year-long public service project and a comprehensive oral examination. The public service project is performed by interdisciplinary teams of students to benefit surrounding communities and organizations (IES, 2004). My report, entitled “Environmental Assessment of Gilmore Ponds Wetland” was commissioned City of Hamilton, Ohio to provide a baseline assessment of a wetland preserve and to recommend management objectives for the future (IES PSP, 2001). This project was completed and submitted to the City of Hamilton in October of 2001. The comprehensive oral examination is administered at the end of the first year of studies and gauges the student’s ability to adapt an effective problem solving process to a particular environmental issue. The examination is directed and evaluated by a panel of three professors from various departments. My examination was attempted and passed in April, 2001.

My chosen area of concentration was not one of the designated concentrations set by IES. I worked with the Deputy Director of Academic Affairs, Dr. Sandra Woy-Hazleton to develop a concentration in natural resource policy and management. This concentration combined courses in policy administration, current affairs, environmental
justice, urban and regional planning, environmental economics and environmental law among others.

In particular, my studies in policy and public administration with Dr. Woy-Hazleton and Dr. Philip Russo have been helpful in my position with the City and County of Broomfield. These studies provided me with a background in public policy management and familiarized me with techniques and methods such as cost-benefit analysis, best practices, and public participation that I regularly utilized during my internship. Another course that has been particularly useful for me is Urban and Regional Planning with Dr. James Rubenstein. Much of my work as natural resource planning involved the city’s Planning Department and the development review process. My studies in urban and regional planning at IES, provided a solid background and understanding of the role planning, zoning, and development in the municipal environment.

The research requirement for the Master of Environmental Science degree can be completed by fulfilling an internship, practicum, or a thesis. For this requirement, I have worked for the Open Space and Trails Department of the City and County of Broomfield since March 2003, initially as an intern and then I was hired as a Natural Resource Planner. For my research project I will be focusing primarily of the period of June 2004 through December 2004.

The City and County of Broomfield

The City and County of Broomfield is located on the front range of eastern Colorado, about ten miles north of downtown Denver (See Figure 1). The City of
Broomfield just became its own county in 2001. Prior to that, the City of Broomfield had been a part of three different counties; Adams County, Jefferson County, and Boulder County. The County of Broomfield is now the smallest county in the State of Colorado. The population of the City and County is approximately 55,000, but an additional 30,000 residents are expected in the next 20 years (OSPRT, 2005). The 1990 population was about 20,000 residents (OSPRT, 2005). The City and County boundary contains about 30 square miles and Broomfield is considered a suburb of both Denver and Boulder.

(Figure 1, CCOB, 2005)

The Community Resources department is comprised of Parks and Recreation, Cultural Affairs, the City Library, and the Open Space and Trails Department. My
The Open Space and Trails Department

With the population growth of the city and county a strong community interest has developed in preserving remaining natural areas and providing passive recreational opportunities such as hiking, biking, and bird-watching (BRMD NAS, 2002). These
are some of the primary objectives of the Open Space and Trails Department, within Broomfield’s Community Resources Department. I have worked directly towards these interests as Natural Resource Planner since March, 2003. The Open Space and Trails Department is one of the smallest departments in the city and county government, comprised of just the department director, Kristan Pritz and myself. The primary objectives of the Open Space and Trails Department are the acquisition and management of natural areas in the city and the ongoing development of a city and county trail system. The official Mission Statement of the Open Space and Trials Department is:

We are committed to enhancing the community’s quality of life by acquiring open space to preserve water resources, wildlife, agricultural uses, and unique geographical features so that every resident is able to have a connection with the natural environment.

We are committed to creating a comprehensive network of trails so that every citizen has the opportunity to walk and bicycle to open space, parks, neighborhoods, schools, commercial centers, and public facilities throughout the community. (Recreation Brochure, 2005, see Appendix A)

The Open Space and Trails Department receives allocated funding from a one-quarter cent sales tax. The funds from this tax are divided with 80% of revenues going to the Open Space and Trails Department and 20% going to the Parks and Recreation department. The Open Space and Trails Department is also allocated some general funding for staffing and supplies, and can use Capital Improvement funds to carry out
major projects such as trail construction, habitat restoration, or the building of bridges and underpasses for the trail system.

Aside from the hierarchy of the city and county staff, the department is overseen and guided by Broomfield citizens by means of the Open Space and Trails Advisory Committee (OSTAC) in all areas of planning and implementation. OSTAC is comprised of seven volunteer community members appointed by the city council, and two city council members also serve on the committee.

The Natural Resources Planner Position

While completing the academic portion of my degree at IES, I focused my studies on natural resource policy and management. I worked to combine a fundamental understanding of the sciences with practical management and public policy background. My work with the City and County of Broomfield represents an opportunity to apply this interdisciplinary perspective to public land management and urban and regional planning. Problem solving techniques, conflict resolution, and public involvement are major components of municipal land management and land acquisition, and this became clearly evident in my interview and orientation.

At the beginning of each year I work with the director of the department, Kristan Pritz, to outline my specific goals for the upcoming year. These goals document some of the broader duties that I am generally responsible for as Natural Resource Planner. The complete list of my goals for work in 2004 is attached as Appendix B.
For this report, I will specifically outline and document the significant projects that I have worked on in my position with the City and County of Broomfield. These projects will include:

- **The Open Space, Parks, Recreation and Trails (OSPRT) Master Plan:** The primary goals and planning for these departments has not been formally altered since the 1995 Master Plan. In this report the Open Space and Trails Department has established ambitious standards for natural resource management, wildlife management, public land dedication, and trail maintenance and construction. Work on this master plan has been my foremost responsibility during my time with the city.

- **Broomfield County Commons Open Space:** The Broomfield County Commons (BCC) Open Space is one of the largest natural areas in Broomfield and has a central location in the community, with close proximity to major residential areas. One of the major recent objectives of the Open Space and Trails department has been to develop and management and master plan for this property, and I have been directly involved in these efforts.

- **The Field Open Space:** The City of Broomfield’s most recognized and venerated open space property is known as “The Field”, and is also located in the center of the city and is surrounded by residential neighborhoods. During the period of my internship, our department and our advisory committee worked to develop a clear master plan for this property and to identify appropriate uses of the land and future improvements.
• The Open Space and Trails Advisory Committee (OSTAC): In my position as the Natural Resource Planner I serve as a direct liaison to the advisory committee. As such, I prepare for and attend monthly OSTAC meetings, respond to inquiries, and regularly put together reports and presentations for the committee.

• Wildlife Management: During my internship I worked extensively on prairie dog issues that have become a lightning rod in the local community. Our department also works with the Colorado Division of Wildlife to oversee and manage many birds of prey, coyotes, foxes, and several endangered and threatened species.

• Review of Development Filing Proposals: The Open Space and Trails Department has developed stringent guidelines for development with respect to environmental issues, land dedication, and trail accessibility. Each department receives site development plans to review and return to the city planners. It has been my responsibility to carefully review these development proposals, identify issues of concern, and to suggest areas for land dedication that are of the best quality for our natural resources and trail system.

• The Broomfield Trail Adventure: The Broomfield Trail Adventure is an annual celebration and exploration of the local trail system that invites the community to come out and hike, bike, or jog on a particular section of the trails. The city staff and a group of volunteers organize this event. I am the coordinator of this event and responsible for planning and overseeing all aspects of this event and all volunteers.
• Natural Resource and Invasive Species Management: Like many natural areas across the country, the City and County of Broomfield open space is suffering from an influx of noxious weeds and invasive species. I work with the city’s contracted wildlife biologists to oversee this problem and recommend maintenance guidelines.

• Mapping, Technology, and Computer Work: During my internship I worked regularly with the city’s aerial photography, ArvView GIS software, Pictometry© software, and Microsoft Publisher to create maps, presentations, and resource inventories.
CHAPTER II

THE OPEN SPACE, PARKS, RECREATION, AND TRAILS MASTER PLAN

The OSPRT Master Plan has been the most significant project for the department for the time that I have been with the city. This is a complete update of the 1995 Master Plan regarding all strategies, planning, and maintenance for the Open Space and Trails Department, and the Parks and Recreation Department. In addition to the efforts of city staff, the city has hired several consultants to assist with different aspects with the plan as well.

One major task that came to the forefront for me was reviewing and editing all of the mapping resources for the OSPRT Master Plan. As part of the Master Plan we had hired a consultant, Charlier Associates in Boulder, to complete mapping all of the trails and intersection descriptions in ArcView GIS. After the consultant turned this work over to the city we had some difficulty creating a user-friendly system and maintaining the updates for the trail system that was constantly changing and expanding. I was assigned to this ongoing task and was given a contact in the GIS department, Karen Brandt, to assist me with the technical aspects. We have spent many hours making changes to the maps and formatting them so they will be easily accessible on our network and the City’s website. The maps are currently available for viewing on the Open Space and Trails website http://www.ci.broomfield.co.us/openspace/.

Below is an example of one of the county-wide trail maps that I have worked extensively to update and maintain:
Another responsibility of mine for the OSPRT Master Plan was to prepare an appendix to the completed plan that is a reference book of all planned trail and intersection improvements. I prepared a trails book to serve as this appendix that has full page descriptions of over 100 planned trail improvements with location photos and an aerial photo for reference. Compiling this book was an enormous task and required a lot of interaction with the Capital Improvements (CIP) department and the Geographic Information Systems (GIS) department. In the coming months I will be making bound copies of this book for each member of our advisory committee, so they can reference future trail projects and improvements. Below is an example of a typical entry page from this trail reference book:
As the Master Plan reached the final editing stages in preparation for the City Council’s formal review I began working more on the technical layout of the plan document, pictures, appendices, and slide presentation. The Master Plan presentation before the City Council will consist of an approximately ten minute PowerPoint.
followed by discussion and a formal vote. I have been working extensively on the PowerPoint presentation, which will be presented by our department director Kristan Pritz.

Another component of the OSPRT Master Plan for our department is a comprehensive signage program for all open space and trails sites. The consultant, Wenk Associates of Denver, has helped to design six different signs for a variety of different purposes on our sites. I have worked with our Public Works Department’s Streets Division regularly to manufacture these signs, specific to given sites, and to install them in the correct locations. We have received many requests from the public for increased signage on the open space and trails, and I have been working to address those needs and prioritize installation projects. After manufacturing a number of our signs, the Streets Division notified us that it would not be feasible for them to keep up with demand for these signs while carrying out their regular duties for the city. Therefore, I will be working in early 2005 to write up a proposal for bids and secure a contractor that will take over all aspects of manufacturing, maintaining, and installing the signs. With the help of city staff from the Streets Division, I have started working on the specifications for the signs and have spoken with several local sign contractors about possibilities and features. Our two largest signs are a general identification sign and a trail sign with basic rules and regulations. These two signs are displayed below:
Figure 5 (OSPRT 2005)

Josh's Pond
Broomfield Open Space

Figure 6 (OSPRT 2005)

Welcome To The Lake Link Trail

Motorized Vehicles and Alcoholic Beverages are Prohibited
Please Report Trail Violations to Broomfield Code Enforcement 303-438-6400
CHAPTER III
BROOMFIELD COUNTY COMMONS OPEN SPACE

The acquisition of the Broomfield County Commons (BCC) Open Space was a major accomplishment for the City, as it is a diverse 240-acre property located right in the middle of residential Broomfield. There are tall native grasses, mature tree stands, wetlands, and two areas of open water on the site. The property is surrounded mostly by residential developments, and some commercial areas. The open space is also surrounded by the City’s athletic ballfields, recreation center, and cemetery. Below is an aerial photo with the surrounding public uses overlaid:

Figure 7 (BCC MP, 2004)

Because it is such a visible area, and an important resource in the community, our department has carried out an extensive public process for the management and master plan of the site. Our department hired a consulting firm, Wenk Associates in
Denver, to facilitate the public process, background research, and overall design for the plan. I work directly with the staff at Wenk Associates to provide information, pictures, and mapping resources, and also help them to prepare presentations for meetings with our advisory committee and the City Council.

I also work continuously with Kristan Pritz to prepare graphics and pictures of the possible trail alignments and the geographic features of the site. During the summer of 2004, we worked extensively with our advisory committee to determine the future layout and surface of the trails system through the BCC open space. The committee wanted to see a trail system extensive enough to provide a variety of access points throughout the site, without compromising the aesthetics or wildlife habitat. We compiled thorough information for the committee regarding trail surface options, budget constraints, and provided the feedback and concerns from the public, city staff, and the City Council. After considerable discussion and revision, the OSTAC Committee decided on an extensive trail system with several major spines through the site. All interior trails will be a soft crusher-fines surface, while the perimeter trails will be paved 8-foot, multi-use paths. In the coming months we will be working on a phasing plan for all of the trail improvements.

The planning and research for the eventual management and master plan continued into the fall and while we sought broad public input on the basic goals and objectives laid out by the consultant and our advisory committee. In early November our department hosted an open house public meeting for all interested citizens concerning the plans for BCC. The open house had information about the various objectives and possibilities for the open space area and offered discussion and comment.
forms to anyone attending. I did a lot of work in preparation for this meeting from preparing posters and graphics to creating an advertisement for the newspaper and sending out notice letters to surrounding landowners. We also worked with our consultants, Wenk Associates, to process all of the comments from the community and evaluate alternatives for the project.

Approximately 60 local residents came to the open house to review the plans and submit comments on the project. The public meeting for the BCC project was an intriguing event for me because it involved the application of a lot of the public involvement concepts that had been stressed during my academic work at Miami. I believe that the City and County of Broomfield really upholds the key objectives of an inclusive public process, and it is very interesting to be part of this in a professional atmosphere.

After the open house public meeting, we worked again with the consultant and our advisory committee to develop more specific goals and objectives for the site. At our monthly OSTAC meeting we reviewed the property and determined different landscape zones (native grass prairie, wetlands, tree stands, etc.). We also attempted to develop a general phasing plan for the construction work to effectively restore and/or create these zones. I have been involved in many site visits for this project and the preparation of posters and PowerPoint presentations for the Committee.

With the help of Wenk Associates and OSTAC we brought a complete draft management and master plan for BCC to the city council in December. The city council voted unanimously to approve the plan, and we will begin implementation in early 2005. Figure 8 shows both the basic conceptual master plan for the property and
the proposed phasing plan of all improvements. These graphics were created by our consultant for this project, Wenk Associates of Denver.
Figure 9 (BCC Plan, 2004)
CHAPTER IV

THE FIELD OPEN SPACE

The acquisition of The Field Open Space in the early 1990’s is recognized by many Broomfield residents as the birth of open space preservation in the community. The Field was slated for development, but local residents in the surrounding community lobbied for the preservation of the area and narrowly prevailed. The designation of this property as a city open space area laid the groundwork for the development of an Open Space and Trails Department and eventual passage of an Open Space sales tax to provide funding. Given this history, management of The Field is a topic of public interest and sensitivity beyond other open space sites in the city.

In the summer of 2004, we worked with our Open Space and Trails Advisory Committee (OSTAC) and the public to develop a comprehensive management plan for The Field. The Open Space and Trails Department contracted the services of Winston Associates, a consulting firm based in Denver and Boulder, to assist us with the planning and design of all improvements. There are four basic quadrants of The Field open space and we are currently just decided on the design for the southeast quadrant. In addition to trails, viewing areas, benches, and some shade trees, we have worked with the city’s Public Art Advisory Committee to design some natural artistic displays that represent the natural history of eastern Colorado. The design of these displays will be finalized in the coming months and will likely be constructed in the summer of 2005.

I worked with both the advisory committee and the consultant to help prepare these plans. I researched past projects and decisions, and produced a comprehensive
report and PowerPoint presentation on the proposed improvements for our department and for the City Council. I summarized this information in several written documents and reviewed the content with Kristan Pritz, and Kevin Standbridge of the City Manager’s office. After this research and the public process, Winston Associates laid out a master plan for The Field that was endorsed by our advisory committee, and work on the Southeast quadrant began in the fall of 2004. Below is a graphic from Winston Associates outlining the improvements of this master plan.

Figure 10 (The Field MP, 2004)
The Open Space and Trails Advisory Committee (OSTAC) has continuous interaction with our department and they oversee all planning projects and strategies. For this citizen volunteer committee to remain aware and informed of all the open space and trails issues and projects takes a tremendous amount of communication and organization for our department. A primary responsibility of mine is to help keep OSTAC apprised of any upcoming issues so that they can be prepared to offer decisions and recommendations. For me, this work consists of regular emails and phone calls, the preparation of reports and summaries, and slide show presentations and posters.

Below is the current Open Space and Trails Citizen Advisory Committee:

<table>
<thead>
<tr>
<th>Open Space and Trails Advisory Committee</th>
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<tbody>
<tr>
<td>Ralph Johnson</td>
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<tr>
<td>Randy Ahrens</td>
</tr>
<tr>
<td>Pascale Fried</td>
</tr>
<tr>
<td>Rob Bodine</td>
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<tr>
<td>Annette Cislo</td>
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<tr>
<td>Bob Cone</td>
</tr>
<tr>
<td>Dan Wilkie</td>
</tr>
<tr>
<td>Gavin Slater</td>
</tr>
<tr>
<td>Patrick Quinn</td>
</tr>
</tbody>
</table>

(Figure 11, Open Space and Trails Advisory Committee)
There are also particular issues that come up from time to time that require more extensive work on behalf of OSTAC. When the committee was developing the Master Plan, they attempted to identify alternative funding sources for future land acquisition and trail construction projects beyond those available with the resources of the open space sales tax. I was asked to research this prospect on behalf of the committee. I attended a seminar about the basic steps for forming a non-profit, 501c3 foundation, and I researched the different ways to organize these foundations and to accept donations and gifts. I found that it would be important for the potential foundation to operate as an independent entity, separated legally from both the city and the advisory committee. I prepared a more detailed report of information and recommendations, and presented this information to OSTAC at the monthly meeting. Two OSTAC members volunteered to spearhead this project and recruit other community volunteers to develop a separate committee to lead the foundation. City staff cannot be a part of this committee but I will continue to be involved with information and research as needed. The foundation is on target to receive formal approval in 2005, and should be prepared to accept gifts and donations within the next year.
Like most Front Range municipalities, the City and County of Broomfield has been characterized by vast development over the past decade, and this development has frequently come into conflict with wildlife habitat and resources. No species has been more controversial than the Black-tailed Prairie Dog (*Cynomys ludovicianus*). Due to their rapid propagation and their ability to adapt to urban/suburban landscapes, prairie dogs thrive in cities like Broomfield despite an enormous loss of habitat and population in the past half-century (Hoogland, 1995, p.20-22). Prairie dogs can also have a major affect on their surrounding ecosystem and the habitat of other wildlife species foraging and consumption of ground vegetation (Hoogland, 1995 p. 22).

In Broomfield, prairie dogs are extremely visible and are part of the public landscape, but public opinion is sharply divided on how public policy should deal with them. Any tampering with prairie dogs on public or private land generally requires a City and County of Broomfield permit, a Colorado Division of Wildlife, and a written exemption from the federal Center for Disease Control allowing the handling or trapping of prairie dogs. Our department administers the city and county permit and verifies the other permits before any activity is permitted, and dealing with these prairie dog policies, projects, and conflicts has been a major part of my work.

In July 2004, I attended a regional prairie dog workshop regarding prairie dog issues hosted by the Boulder County Open Space Department. As the only representative of the City and County of Broomfield, I found myself answering many
questions about Broomfield’s new prairie dog policy. A key provision in Boulder County’s prairie policy, which banned all lethal control of prairie dogs, was recently overruled by the state Department of Agriculture based on the state Pesticide Applicator’s Act, which defines prairie dogs as rodents and grants the right to any private landowners to manage rodents with lethal control if necessary. The ruling that this state law would supercede county or city laws is a major concern of other Front Range municipalities, who are now concerned over the grounding of their own policies.

Broomfield’s new prairie dog policy is of interest to many other departments because it does not place an outright ban on lethal control of prairie dogs, but requires a permit and mitigation fee (usually $100 per animal), that is administered by the city. This policy has not yet been challenged by the state and creates a mitigation fund that the City can use to mitigate future prairie dog conflicts or for the acquisition of additional prairie dog habitat. At the close of this forum, I was appointed to a six-person steering committee to continue efforts to find a flexible solution for prairie dogs and to coordinate future meetings and opportunities to exchange ideas and strategies with other Front Range municipalities.

Although this is a specialized issue that is somewhat unique to the area, I think that working on the steering committee for this region will be invaluable. Since the forum I am already coordinating many of our prairie dogs issues with these connections from other departments around eastern Colorado and I look forward to fostering these connections in the future. The prairie dog controversy between Boulder and the state of Colorado is certain to have wildlife ramifications in the future, I know that I will be informed and involved in the subsequent policy-making.
It has been very interesting for me work with Broomfield’s new prairie dog policy and observe its effectiveness and potential shortfalls. Although the policy is a product a very successful public process with considerable input from the community it remains unclear if it will offer a viable solution for the long-term future. The policy is geared towards providing flexible solutions for the city and private landowners, while attempting to maintain the local wildlife and treat prairie dogs in a humane fashion. However, I believe that there are two major issues affecting the success of the policy. One is the political stance of the community and the elected officials, and the other is the size of the prairie dog population and the rate of growth.

Broomfield’s prairie dog policy was passed by the city council in 2003, but there is still the need for ongoing approvals from the city council to carry out maintenance projects, relocations, or removals. With annual turnover on the city council and changing political views in the community, there is no guarantee that the council will approve the projects, sites for relocation, or funding that the policy is designed to rely on. Currently, the city council has approved only one site in the city and county for prairie dog relocation, the Great Western Open Space. As Great Western reaches carrying capacity for prairie dogs, as set by the Colorado Division of Wildlife, the city will need to find a new site for relocation. Since relocation projects are the only non-lethal control method for unwanted prairie dogs, the lack of a relocation site could severely alter the policy and essentially mandate lethal control as the only option for landowners.

The other major issue affecting the success of the policy is the rate of growth in the prairie dog population and the sustainability of both the populations and the natural
resources on which they depend. One possible flaw or limitation of the policy is that the primary objective is not managing a sustainable prairie dog population, but rather offering flexible solutions to prairie dog problems. As such, the policy does not focus directly on determining and maintaining a sustainable population for the ecosystem, but on solutions for individual properties. Because the policy is not geared towards population and ecosystem management, it may require perpetual maintenance and lethal control to offset propagation and migration. I believe that the policy could become more effective by utilizing and enhancing natural environmental controls of the prairie dog populations, such as increased predator habitat and natural barriers to migration. Examples of these techniques are increased perches for raptors and denser vegetation to support natural predators of prairie dogs, such as coyotes and foxes. Our department is currently looking into artificial raptor posts to improve hunting habitat for hawks, eagles, and falcons. I believe that these measures could provide natural barriers to the prairie dog migration and overpopulation that threaten the success of the policy.

At a City Council meeting in the summer of 2004, a Broomfield resident living adjacent to the Great Western open space complained to the Council that prairie dogs from the open space were migrating onto his property. He stated that he was particularly concerned because he keeps horses on the property and the prairie dog burrows present a danger to the horses. This is a significant issue for our department as the Great Western open space is the only area that is currently approved by the Council for prairie dog relocations. Broomfield’s Prairie Dog Policy designates relocation as the primary solution to unwanted prairie dogs, and without the site for relocations we
would be forced to move to donation to a wildlife recovery program or lethal control instead. After some discussion the City Council decided that we would need to construct a barrier to prevent prairie dog migration onto these properties in order to carry out any further relocation projects.

I was asked to type up the specifications for the project and send out a request for bids from fence contractors and wildlife groups. The process of requesting for bids was a new experience for me so I worked directly with the City’s Finance and Parks Maintenance departments to ensure that the specifications were clear. Based on the bordering property lines we determined that the barrier would need to be approximately 1500 feet in length. We proposed that the contractors metal paneling that would extend two feet below ground and 3 feet above grade to prevent burrowing under and provide a solid visual barrier. We received six bids for the construction of the barrier and four of them were well out of our range financially ($15,000 to $18,000). We decided to choose a local wildlife group called Prairie Preservation Alliance as their price was low and they had constructed several of these projects for other municipalities. I made several site visits with the contractor to explain out expectations and they began work on the project in late-July.

The Prairie Preservation Alliance (PPA) has begun their work contract with the City to construct the 1250-foot prairie dog barrier at Great Western Reservoir. Just as we began with the project we noticed on an old P.U.D filing that there was a utility easement through this area, so I had to reissue a second contract for PPA to install a gate within the barrier to allow access. Otherwise my inspections of the barrier were fine, and I believe that this will be an effective means of confining the prairie dogs to
the City’s property. In the event that prairie dogs do migrate onto private property the landowner has the option of having them exterminated, which is something we want to avoid both from the standpoint of the local ecosystem and the potential public relations fallout for the City.

(Figure 12, Great Western Prairie Dog Barrier)

Another major prairie dog issue surfaced when representatives of the Preble Creek development contacted me in mid-July and announced that they had plans to remove about 200 prairie dogs on a site awaiting constriction. This became a controversial issue because this development had originally pledged to relocate all prairie dogs to other open space areas within their development. After meeting with staff from the project, we requested that they have a wildlife biologist provide a report on the prairie dogs and review and the possible relocation properties within the

29
development. Subsequently it was determined that there was not room for a relocation of the necessary size on the developer’s property or on city open space. As such, I worked with the developer find a wildlife recovery program (for injured birds of prey) that would accept the prairie dogs and they carried the project out in late-July and August (See Appendix D for this prairie dog permit application).

Similar to many natural landscapes in the Front Range of Colorado, the Broomfield County Commons open space has a significant prairie dog population that seems to be consistently expanding and migrating. During the formation of our BCC Master Plan our committee expressed a desired to limit the boundaries of prairie areas as to have a greater overall biodiversity throughout this open space site. As such, I have been asked to coordinate the relocation or removal of 200 to 400 prairie dogs from areas designated for native grassland restoration or trails.

The first step in this process was to visit the site with our wildlife biologist, Allen Crockett, and the engineer from our Capital Improvements department, who will be facilitating the landscape improvements. On the site visit we determined that there would be an immediate need for the removal/relocation of 150-200 prairie dogs by June, from about a ten-acre area. After this, I wrote of a brief request for bid proposals from local contractors. There are several non-profit advocacy groups and several small environmental firms that will do this kind of work. I sent the request for bid out to five or six groups and also set a date to visit the site with prospective bidders. Below is a graphic that I prepared as part of the bid package to demonstrate the site and the areas needing prairie dog removal. (See Appendix E for the entire bid proposal package).
I also contacted the Colorado Division of Wildlife to see how many prairie dogs they would allow to be relocated to our Great Western Open Space. This site is the only one in Broomfield approved for prairie dog relocation by the city council, and state law prohibits the relocation of prairie dogs across county boundaries. John Koehler, the regional representative from the Colorado Division of Wildlife, stated that the Great Western prairie dog habitat was nearly filled to capacity, and that we could only relocate another 50 prairie dogs to this site. In accordance with our comprehensive Prairie Dog Policy, our next option after relocation for the remainder of
the prairie dogs is removal and donation to a wildlife recovery program. Currently the U.S. Fish and Wildlife Service (USFWS) oversee a black-footed ferret recovery program and a raptor recovery program. Since prairie dogs are a primary food source in the wild for ferrets and raptors, these programs will accept live prairie dogs from regional cities and counties, and use them to provide food during rehabilitation.

Upon my site visit with prospective contractors, I was informed that none of the advocacy groups would participate in the removal for donation option, since it would ultimately lead to the death of the prairie dogs. Some of these groups contacted our city council and mayor to express their objections to the overall project. Eventually I was able to obtain verbal bids for two separate projects, one for the relocation of 50 prairie dogs, and another for the removal of any remaining prairie dogs and subsequent donation to a wildlife recovery program. I also assisted our department director, Kristan Pritz, in preparing a memo for our city council and mayor supporting our position on this project. The memo primarily noted that there had been an extensive public process leading up to these policies at BCC, and that we had decided to preserve 40-acres within this site for prairie dog habitat. The final decisions and contracts for this project will likely be worked out in January or February of 2005.

During my time at the Open Space and Trails Department I have also worked on some significant wildlife issues not related to prairie dogs. We frequently review city properties or proposed development properties for endangered Burrowing Owls (*Speotyto cunicularia*) and birds of prey (Hoogland, pgs. 415-417). In Broomfield we often encounter birds of prey including Red-tailed Hawks (*Buteo jamaicensis*), Ferruginous Hawks (*Buteo regalis*), Swainson’s Hawks (*Buteo swainsoni*), Bald Eagles
(Haliaeetus leucocephalus), Peregrine Falcons (Falco peregrinus), and Northern Harriers (Circus cyaneus) (NGS, 1994).

Occasionally management issues arise with the foxes and coyotes that frequent some of our open space properties. Our work on the Broomfield County Commons Master Plan and phasing plans were interrupted in December by a significant wildlife public relations issue. An edition of the local newspaper, the Broomfield Enterprise, ran major story on the incidences of domestic pets being attacked and killed by coyotes at BCC (Broomfield Enterprise, 2004). Although this open space is not an off-leash dog area, and is marked as an on-leash area, many residents let their dogs run free. Since BCC is approximately 240-acres of preserved natural areas, there are many coyotes, foxes, raptors, badgers, and other larger wildlife species. The newspaper reported that six domestic dogs had been attacked by coyotes, sometimes in full view of their owners (Broomfield Enterprise, 2004). This brought about a lot of phone calls and public feedback to our department, suggesting a range of opinions on the topic. The difficulty in this situation is that city law already attempted to deal with this situation by requiring that dogs be on-leash, and any conflicts with coyotes only arose after visitors disregarded this law.

The Colorado Division of Wildlife (CDOW) is the higher authority on these local disputes with wildlife so we immediately contacted them. The CDOW took the position that BCC is a wildlife preserve and therefore the protection of domestic pets on this property is the responsibility of the pet owners not the city, county, or state. However, if any animal became a threat or consistent nuisance to human visitors, that animal would be removed. In bordering Boulder and Jefferson Counties there are many
public open space areas that pass through bear and mountain lion habitat, so the regional CDOW office was not accustomed to many complaints about coyote conflicts, by comparison. Our department also sought to alleviate the problem by increasing public awareness; we posted a dozen educational warning signs about coyotes and ran some informational advertisements in the local newspaper about coexisting with coyotes. We also asked the code enforcement division of the police department to increase visits to the BCC open space and be more vigilant about off-lease dog violations. Furthermore in January 2005, the city will open a public off-leash dog park that is located about a ¼ mile from the BCC Open Space.
CHAPTER VII

REVIEW OF DEVELOPMENT FILING PROPOSALS

During 2004, our department reviewed approximately 100 development filings and provided our recommendations to the planning department. This is a primary responsibility of mine, as I generally perform the preliminary review, then meet with Kristan Pritz to discuss the review, and then type up a draft of our comments and recommendations. The primary concerns for review for our department are impacts to the surrounding ecosystem, wildlife habitat, the community trail system, drainage issues, wetlands, and pedestrian accessories. This review process also required a lot of interaction with the planning department and I gained a lot of experience in land-use planning and learning the municipal planning codes.

During the summer and early fall of 2004, our department reviewed and negotiated over a proposed development called Pinnacle North. Although this is a relatively small development, with 16 single family homes and a church complex, it represents a key potential connection axis for the city trail system. A connection in this area would tie into the Southeast Community Loop Trail, the Broomfield County Commons open space, and the newly constructed Paul Derda Recreation Center.

Aside from providing the required open space land dedication, the Pinnacle North developer has been reluctant to provide an 8-foot off-street trail segment across the property, as requested by our department. The developer has proposed to construct a trail connection via the sidewalk running through the development. I personally reviewed several of the Pinnacle North filing proposals, made site visits, and met
directly with the developer’s staff and City planners for this project. I also wrote and edited recommendations and requests to the developer on behalf of our department. Eventually the developer reconfigured several of the lots on the plans and agreed to construct an 8-foot off-street trail across the property. The development proposal will likely go before the City Council in early 2005.

The reviews and negotiations over the Pinnacle North development were a great experience for me, as I was granted the opportunity to directly represent our department and the City in negotiation meetings with the developer. This was the first occasion where I was directly involved in every aspect of a development proposal review, from site visits to negotiation meetings to writing up the actual reviews and recommendations. This particular project was very satisfying as we were able to work out an agreement with the developer that will provide the City with an excellent trail connection through this neighborhood. A copy of one of our review memorandums to the developer is attached as Appendix F.

The Broadlands Tract 20 proposed development is another project that I spent a significant amount of time working on. The proposal is for a dense collection of rental apartments and town homes, on what is currently vacant land that is zoned for residential development. This property has the potential to offer a great trail connection for the City’s trail system along an existing community irrigation ditch. The difficulty with this connection is that it would run right along one of the fairways of the existing Broadland’s golf course, which was part of a previous development. Our department met with the board overseeing the golf course and discussed this situation with them. They expressed reluctance to have a public pedestrian trail running along the golf
course, because of the potential injury and liability associated with errant golf balls. Despite this legitimate concern, we wanted to keep the possibility open for exploring a trail here in the future, so we asked the Broadlands developers to grant a pedestrian access easement in this location, but not an actual trail. They have granted this request, and this project will most likely be formally approved by the City Council in early 2005.

The Broomfield Business Center proposed development is a large mixed-use residential-commercial project, which would develop about 200 acres of rural property on the periphery of the City. This property has already been zoned for development by the City Council, and will be a mixed-use development of commercial and residential units. The development plan calls for regarding the entire site, removing existing vegetation, and piping the existing ditch underground. However, there a lot of concerns with this development plan as the property is part of a larger natural area with wildlife, mature tree stands, and water resources. As such, I have spent a considerable amount of time reviewing and researching this property and the proposed development.

After some basic research on the location and a site visit, I met with the developer and staff in mid-November. One of the primary areas on concern is the presence of an irrigation ditch across the edge of the site that supplies several mature willows and Cottonwoods with water. The developer does not believe that the irrigation ditch can be preserved with the plans for grading and construction in the area. The developer stated that the decision to pipe the ditch underground through the site has already been agreed upon with the ditch company, who is responsible for maintaining the irrigation ditches. This plan to pipe the ditch would also result in the
removal of all trees and vegetation surrounding the ditch. I explained to the developer that the City had not been a part of that agreement in any way and they should not assume that we would support the removal of the open ditch. I informed the developer that our department would be recommending the preservation of the large cottonwood trees at this site. The developer and their staff contended that the essential grading plan for the project would preclude the possibility of saving any of the large trees.

After further review of the site and discussion with Kristan Pritz, we decided to stick with our recommendation that the large trees be preserved at this site, and that the irrigation ditch be kept open to supply water to the trees. On site visits we witnessed hawks hovering over the trees and several large nests in the area around the irrigation ditch. Our review of the developer’s wildlife report confirmed that Red-tailed and Swainson’s hawks are often present in this area. We also verbally advised the developer to comply with all relevant implications of the Migratory Bird Act, which would prohibit any tampering with a nest in active use.

Because the area along the ditch is a United States Geological Survey jurisdictional wetland, provides active wildlife habitat, and serves as a buffer to the future development, we believed that it was the responsibility of our department to recommend significant changes in the grading and development plan to accommodate these resources. Furthermore, after careful review of the site and the development plan, we were not convinced that preserving the trees in this location – the corner of the property – would have an adverse affect on the overall development project. Our review comments and recommendations will be passed on to the Land Use Review Commission (LURC) and the City Council for their final reviews of this project, which
will likely take place in early 2005. The comments and recommendations of our
department are attached as Appendix G.
CHAPTER VIII
THE BROOMFIELD TRAIL ADVENTURE

During my two years with the City and County of Broomfield, June has been my busiest month of the year mainly due to the Broomfield Trail Adventure. This event is our primary tool to showcase and market the local open space and trails resources to the community. This event is very similar to my work on Earth Day in Oxford, in 2002. In both cases there was a core of community interest that helped to make the planning and organization much less burdensome. The Broomfield Trail Adventure has indeed served as a great marketing tool for our department as we experienced a sustained level of interest in our resources after the event.

In the months leading up to the event, I organized bi-weekly meetings with a committee of about ten community volunteers. The first task was to designate a trail route that would have a good staging area for the event and offer attractive trail routes for both pedestrians and bikers. The next major task was to obtain community sponsors for the event and organize all of the advertising and media outlets.

After several sites visits and many photographs, Kristan Pritz and I proposed that the 2004 trail route showcase the newly constructed Ridgeview Trail and that we stage the event at the nearby Zang Spur Park. This area offers some excellent trail loops with great views of the Rocky Mountains, and because it is so new many people are not aware of the trail loops and connections. The committee agreed to this location and we began the process of public notice to all adjacent landowners and obtaining all of the city and county permits that were needed.
My next responsibility for this event was to prepare posters, advertisements, mapping, and various handouts to promote open space and preservation at the actual event. I worked with the GIS department to overlay all of the relevant trails and intersections on an aerial photograph of the city. The advertising and promotional work was very similar to work I did preparing for the Earth Day celebration in Oxford in 2002. After many revisions and assistance from the GIS department, I completed the final map and brought it to the committee for any final edits.

(Figure 14, BTA 2004 Map)

On the night before the event I met with a group of volunteers after work and we used small flags and directional arrows to mark the entire course. We also set up several interpretive stations and visual displays to promote Broomfield’s natural resources and open space preservation. I also worked to organize several city
departments and local non-profit groups to bring informational displays to the staging area as well.

On the morning of the event we were blessed with a clear, sunny day and we had approximately 220 members of the community come out and enjoy the trails. It was a great opportunity to promote the Open Space and Trails Department, as the city mayor and several city council members came to the event and enjoyed the trails. After the event we obviously had a significant amount of cleanup, but I also had the responsibility of writing thank you letters to all volunteers, all sponsors, and to several departments of the city staff that had helped out.
CHAPTER IX
NATURAL RESOURCE AND INVASIVE SPECIES MANAGEMENT

In early August 2004, our department was contacted by a local resident who was very upset about a particular open space site, which she felt was not being properly managed by the city. She was referring to the Lac Amora open space, where off-leash dogs were apparently harassing wildlife and destroying the native vegetation on a continuous basis. I called the resident and spoke with her personally to get a better understanding of the problem. Because her main concerns revolved around the behavior of off-leash dogs, which is already in violation of city ordinances, I contacted the code enforcement division of the Police Department. After we were assured that code enforcement would frequent the area, we also asked our public works department to erect some signs in the area outlining the city’s leash laws and the sensitive surrounding wildlife habitat. I drafted a comprehensive response letter to the resident, which is attached as Appendix C.

Late in the summer of 2004, I visited our Great Western open space property with our wildlife biologist Allen Crockett to review the potential prairie dog habitat for potential relocation projects. On our review of the site we noticed that several invasive species had been propagating very aggressively and the native vegetation seemed to be fading by comparison. In particular, the Dalmatian Toadflax (*Linaria dalmatica*) and the wild Alyssum (*Alyssum minus*) seemed to be dominating the site and have progressed noticeably since our last site visit. As such, Allen Crockett suggested a more aggressive vegetative maintenance program for this property. This is a primary
site for prairie dog habitat in Broomfield, and unfortunately the prairie dogs will only feed on the native vegetation.

Unfortunately our department does not have our own maintenance staff, so I wrote up a brief report and forwarded the information on to the Public Works and Parks Maintenance departments. This will certainly be an ongoing issue at the Great Western site and several other open space sites in Broomfield. There is a great need to preserve and improve the habitat for prairie dogs at Great Western, as this site will serve as the primary relocation site for unwanted prairie dogs for the foreseeable future. I plan to visit the site regularly throughout the summer and fall, and will document ongoing effects of these noxious weeds.
CHAPTER X

MAPPING, TECHNOLOGY, AND COMPUTER WORK

During my work with the Open Space and Trails Department at Broomfield, I have continuously used the GIS department for assistance with all of our mapping resources and geographic information. Because of the popularity of ArcView GIS software, the Information Technology Department decided to acquire floating licenses for ArcView so that other departments could use the software instead of always going through the GIS Department. The Open Space and Trails Department was permitted to use ArcView GIS, and because of my past experience with GIS I was designated to learn the latest version of ArcView in preparation for the transition of some of our mapping applications from the GIS Department to our department.

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In the late-Fall of 2004, I spent a lot of time working in the GIS Department updating our maps and learning how the data and applications were organized. As part of this work, I also made many site visits to collect more information about specific trail locations and open space features. In November and December I installed ArcView 9.0 on my computer and began taking over maintenance and updates of the
open space and trails mapping resources. This has been a learning transition for me since I originally learned ArcView 3.2 software while at studying at IES, and now had to relearn the software on Arcview 9.0.

I also made a number of visits to different open space sites in November to get some final photographs and information for the OSPRT Master Plan. I use a digital camera that I can easily download the photos and adjust as needed. I have been developing and maintaining a photo database for the department of all open space properties, trails, development, filings, and events. In November I added hundreds of photos for the OSPRT Master Plan and the BCC management plan, and regularly used these photos for meetings, posters, and various displays.

Another new technology program I worked with for Broomfield was the use of Pictometry© oblique aerial photography. This is a brand new software program that the city has subscribed and I was chosen as one of a handful of employees to learn the software and test the product. I will then report back to the Information Technology Department and will eventually teach other employees to use the product if it is purchased permanently. These resources offers very close, high-resolution aerials of the entire city and county, and the photos are taken from an oblique angle to increase the depth perception. The photos have been terrific for our department to show our resources and analyze management and planning. Below is a Pictometry© aerial photograph of our Broomfield County Commons Open Space area.
Figure 15, Pictometry© photograph, 2004
CHAPTER XI
CONCLUSION

Internship Experience:

This opportunity with the City and County of Broomfield has presented an ideal opportunity for me to apply my academic work in natural resources. Much like my work in the classroom, the internship was very interdisciplinary in scope while being rooted in natural resource management. Working as a part of such a small department has also allowed me to experience all aspects of the work, and to gain the practical experience of natural resource management at the municipal level. In particular, my work on wildlife issues, development filing reviews, and the drafting and editing of natural resource management plans has been very instructive and fulfilling.

The Natural Resources Management concentration that I created and arranged with my faculty committee at IES provided me with a strong background for this position and I intend to continue to utilize this experience. The shift from the classroom to a professional atmosphere has been a significant transition, but one that has been surprisingly comfortable and rewarding. Working with the City and County of Broomfield has reinforced my commitment to natural resource issues, and provided the background, knowledge and confidence to build a career in natural resource planning and management.
REFERENCES


2. BCC MP, 2004, Broomfield County Commons Open Space Management and Master Plan, City and County of Broomfield, http://www.ci.broomfield.co.us/openspace


11. OST Website, 200, Open Space and Trails Website, City and County of Broomfield (Accessed 20 January 2005), http://www.ci.broomfield.co.us/openspace

LIST OF APPENDICES

A. City and County of Broomfield Recreation Department Brochure

B. List of Goals for Peter Dunlaevy, Natural Resource Planner, 2004

C. Response Letter to resident Wendy Keefover-Ring

D. Prairie Dog Removal Permit for Pulte Homes

E. Broomfield County Commons Prairie Dog Project, Request for Proposal

F. Open Space and Trails Department review and recommendations for the Pinnacle North development

G. Open Space and Trails Department review and recommendations for the Broomfield Business Center development
OPEN SPACE AND TRAILS

Our Mission Statement

We are committed to enhancing the community’s quality of life by acquiring open space to preserve water resources, wildlife, agricultural uses, and unique geographical features so that every resident is able to have a connection with the natural environment.

For information on Open Space, Trails, Meetings, the Prairie Dog Policy, and the Open Space, Parks, Recreation, and Trails Master Plan, please visit our web site at: www.ci.broomfield.co.us/openspace/ or contact Kristan Pritz at 303-438-6335.

The Open Space and Trails Advisory Committee Members:
Rob Bodine – Vice Chair, Annette Cislo, Robert Cone
Pascale Fried – Chair, Patrick Quinn, Gavin Slater, Dan Wilkie
Councilmember Randy Ahrens, Councilmember Ralph Johnson

Broomfield Trails

The Broomfield trail system is an extensive network of diverse terrain that is developing continuously in terms of size and connectivity. The recently constructed Ridgeview Trail offers spectacular views of mountain vistas and connects to several major community trails. In addition to providing various local opportunities, the trail system also connects with major regional trails such as the Coal Creek Trail and Big Dry Creek Trail. Please call 303-438-6216 to obtain the trails map.

Open Space, Parks, Recreation, and Trails Master Plan

The OSPRT Master Plan was approved by the City Council on February 8, 2005, and will guide strategies for the management and acquisition of our local resources. The plan has set specific priorities and goals for enhancing Broomfield’s trail system, open space lands, parks, and recreation facilities. The complete plan is available on our website.

Broomfield County Commons Management Plan

In December, 2004, the City Council approved a comprehensive management and master plan for the 237-acre open space area at Broomfield County Commons. The plan includes a trail system, wildlife viewing areas, enhancement of Tom Frost and Le Gault reservoirs, and other amenities for the open space. This plan is also available on the website.

Special Events

The Broomfield Trail Adventure is an annual event which invites the community to come out and explore local trails. Participants are welcome to hike, bike, jog, or roller blade the trails and are treated to refreshments and prizes. This year the event will take place on June 4th, in conjunction with National Trails Day.

Nature Programs

Broomfield offers a variety of educational opportunities, trail walks, and other outdoor activities through local nature programs. There are programs for children and adults and activities are taught or led by local naturalists.

Please see page 51 for Nature Programs!
Goals for Work in the Open Space and Trails Department, 2004:

- To continue to be involved in all of the major issues related to the Open Space and Trails department. To continue to assist, support, and learn from Kristan Pritz and the Open Space and Trail Advisory Committee.

- To complete the OSPRT Master Plan and begin to implement the various objectives contained therein.

- To continue to build the Broomfield trails system, both in terms of size and connectivity. In particular, I would like to see the Ridgeview Trail continued to the Country Estates neighborhood and complete other missing links in the Lake Link and Southeast Community Loop trail systems.

- To create a quality user map for Broomfield’s trails and key regional connections.

- Would like to help complete the acquisition of the Metzger property and begin to plan the management and uses of this property.

- To organize a successful Brunner Farmhouse Planting Day and see the plans for the extensive gardens there come to fruition.

- To organize and promote the Broomfield Trail Adventure into a major community outing and a showcase of our trail system. I look forward to bringing a national event such as National Trails Day to the local level here in Broomfield.

- I would like to continue to build a photo-database of Broomfield’s natural resources and trail systems.

- I would like to improve some areas of my computer skills, namely GIS software, publishing software, and database systems like MS Access. I plan to enroll in classes offered by the City as they come up.

- To attend a Myers-Briggs workshop to get a better understanding of my strengths and weaknesses. I have signed up for this in March.

- To become more involved with more open space departments natural resource groups throughout Colorado. I would like to attend conferences and meeting with regional and statewide groups.

- To continue to promote the wildlife, recreation, and natural resources available in Broomfield. I would like to see the Broomfield public gain a better understanding and appreciation for the local natural resources, thereby creating more of a ‘sense of place’ here in Broomfield.
Appendix C

August 5, 2004

Ms. Wendy Keefover-Ring
225 Hemlock Street
Broomfield, CO 80020

RE: Open Space Maintenance Issues at Lac Amora

Dear Ms. Keefover-Ring,

We received your letter last week describing the situation at the Lac Amora Open Space and we sincerely appreciate you bringing these issues to our attention. We take these issues very seriously and strive to manage our open space resources in accordance with the guidelines and regulations that we have established. Your letter has been received and recorded by Open Space and Trails, Code Compliance, and Parks and Open Space Maintenance. We did want to respond to you in a prompt fashion, even though some of the response will be ongoing. We will attempt to give you an update regarding each of the concerns you raised in your letter.

Regarding the problem of dogs being off-leash on the open space, this is both an education issue and a code compliance issue. We recently installed some signage on the Lac Amora open space that shows the basic uses and restrictions, including the leash law. As you pointed out, this may not be adequate because many people access this area without passing a trailhead. Open Space and Trails is currently reviewing some additional signage locations for Lac Amora. We are in the process of hiring an outside contractor to make more signs. The bidding process will take some time to implement. If possible, we will see if our Public Works Department is able to make a few more of the signs identifying appropriate uses to speed up the process of getting the signs up. Code compliance is also planning to put a notice of the leash law in the Broomfield Enterprise.

In terms of enforcement, code compliance officers will increase visits to this area and will be writing tickets for both off-leash dogs and failure to pick up after your dog. They will be physically walking trails, and have reported writing tickets in the Lac Amora open space both before and since receiving your letter.

Regarding the maintenance issues you brought up, our Parks Maintenance department has put in a work order for an additional dog-bag dispenser and garbage can to be located along the trail in the area west of Josh’s Pond. The location is not yet set and your input would be welcomed. This will likely take a couple weeks to get these supplies and install them.

We understand that these efforts do not immediately address all of the concerns on the Lac Amora open space, but we will continue to work to resolve this issue. Thank you again for your concern and commitment to our natural resources. Please free to contact me at any time to discuss these issues.

Kristan Pritz
Director of Open Space and Trails
City and County of Broomfield Prairie Dog Policy
Removal Permit Application
For Donation to a Wildlife Recovery Program

Name:___________________________________ Telephone Number:________________________
Address of the Subject Property:______________________________________________________
__________________________________________________________________________________
Date of Application:______________

Description of Request:

Number of Prairie Dogs Affected:

Proposed Relocation Method:

Schedule of Relocation:

Please attach results of a burrowing owl study for the subject property. See further description below. Also, a copy of the agreement to accept the prairie dogs from the wildlife recovery program is required with this application.

A final report describing how many prairie dogs were removed shall be submitted by the permittee to the City within two weeks of project completion. The permittee shall also submit to the City documentation from the wildlife recovery program to which the prairie dogs were provided.
Notice:
The United States Fish and Wildlife Service (USFWS) only accepts prairie dogs from late April through mid-October. In addition to this permit, a Colorado Division of Wildlife (CDOW) permit is also required before prairie dog removal.

Burrowing Owl Review:
Prior to relocation, removal, or extermination of all or part of a prairie dog colony during the burrowing owl nesting season (April 1 through July 31), the prairie dog town shall be surveyed by a qualified biologist for the presence of burrowing owls. The burrowing owl, which nest in vacant prairie dog burrows, is listed by CDOW as a threatened species in Colorado and protected by USFWS under the federal Migratory Bird Treaty Act. If burrowing owls are found to be nesting within a prairie dog town, the City shall postpone any relocation or control measures until after the nesting season. If postponing prairie dog relocation or control would represent an undue hardship for the City or its citizens, the City may apply to USFWS for authorization to implement the proposed action during the nesting season. The results of the burrowing any owl study must be submitted with this permit application. For more information please review section 4.9 of the complete Prairie Dog Policy, which can be found at www.ci.broomfield.co.us/openspace/

Public Notice Requirement:
No prairie dog removal project shall proceed without prior public notice. Such prior notice shall include, at a minimum, 5 days public notice in the local newspaper before any proposed action. In addition, specific notice, by mailing or other direct notice shall be given to record landowners adjacent to the property containing the existing prairie dog site at least 10 days prior to the proposed action. For complete information on Public Notice requirements see the complete Prairie Dog Policy, Section 4.2.

Removal Method:
Upon approval of this permit, the applicant may remove prairie dogs using live-trapping, water flushing, vacuum truck or other approved method and transport the prairie dogs to a site designated by the USFWS for use in the Black-Footed Ferret Recovery Program or other City approved wildlife recovery program such as the Rocky Mountain Raptor Program. The applicant is responsible for all costs associated with the prairie dog removal project.

Please review the complete Prairie Dog Policy before applying for this permit or taking any action. The policy is available at the Open Space and Trails Department at the Municipal Building or online at: www.ci.broomfield.co.us/openspace/
City and County of Broomfield  
Prairie Dog Relocation/Removal Project  
Broomfield County Commons Open Space  
January 19, 2005

To all interested bidders:

The City and County of Broomfield will need to relocate and/or remove 150 to 200 prairie dogs from the Broomfield County Commons Open Space in the Winter/Spring of 2005. The location of the site for relocation/removal is near the middle of the open space, along the southern side of the drainage channel to the northwest of Tom Frost Reservoir.

The area needing prairie dog removal is approximately 10 to 15 acres along an existing social trail across the site. Pictures of the area are shown below, and a vicinity map and aerial photo are attached with this document. These boundaries are an approximation. In some of these areas, the City intends to till the land and erect a silt fence after the prairie dogs have been removed.

The project schedule for this work requires that all prairie dog activities be completed by June 14th, 2005. The Colorado Division of Wildlife has stated that prairie dog projects cannot be carried out from March through May due to the breeding season. As such, the removal or relocation of all prairie dogs will need to be primarily carried out before March 1st. If needed, removal of the remaining prairie dogs could be conducted in the first two weeks of June to accommodate the planned construction in the area.

If any removal or relocations are to be carried out between April and July, a burrowing owl study is required. This study will be conducted by the City’s environmental consultant, upon notification from the contractor of plans to work during this time period.
One key constraint for this project is the limit of $4500 for all project costs. This limit has been set by the City Council as the maximum expense to the City and County of Broomfield for any prairie dog relocation/removal project. Please indicate the potential costs associated with relocation of prairie dogs and removal for donation to a wildlife recovery program. Please indicate a suitable plan for the numbers of prairie dogs to be relocated or removed for donation within this budget.

At this time, it appears that there will be space for approximately 50-70 prairie dogs to be relocated to the Great Western open space site, east of Indiana Blvd., and south of Highway 128. The remainder of the prairie dogs will need to be donated to a wildlife recovery program, such as the USFWS Black-footed Ferret Program or the Raptor Recovery Program.

All work on this project must be in accordance with the City and County of Broomfield Comprehensive Policies for Prairie Dog Conservation and Management. Pursuant to these policies, a final written report will be required documenting the number of prairie dogs relocated and removed from the site, and where they were received. Please review the policy in its entirety on our website at www.ci.broomfield.co.us/openspace/.

The contractor will also need approved permits for prairie dog relocation/removal for this project from the Colorado Division of Wildlife and the Food and Drug Administration. These approved permits will need to be submitted to the City and County of Broomfield prior to any work on the project.

We have scheduled a site visit for all interested parties to visit the Broomfield County Commons site and the Great Western relocation site. This meeting is currently set for Wednesday, January 26, 2005. We will be meeting at 2:00p.m. at the trailhead parking lot west of Lowell Blvd./north of Midway Blvd., next to Tom Frost Reservoir.

Because of the extremely limited time period for this project please respond with a written proposal for this project by February 1st, 2005. Please also note that on account of the limited time period, we will be issuing public notice for the project before the bid is awarded. Therefore, it will be possible to begin work on this project by the second week in February.

Any questions regarding this request for bid shall be directed to:

Peter Dunlaevy
Open Space and Trails
One DesCombes Drive
Broomfield, CO 80020
Phone: 303-438-6216
Fax: 303-464-5808
E-mail: pdunlaevy@ci.broomfield.co.us
Comments for Planning/Manjeet Ranu:

1. Regarding the future bike lane along Lowell, Tom Schomer suggested that we accept cash-in-lieu for this because the section of bike lane that Pinnacle North would be responsible for would not connect to existing bike lanes on either end. He suggested that it would be easier to construct the entire bike lane at one time with the reconstruction of Lowell.

2. We support asking the developer for a tot lot or some other sort of amenities in Tract A since this is a park.

3. We also wanted to confirm that both Tracts A and B are officially dedicated as open lands in the Final Plat.

4. It is our understanding that the land dedication of Tracts A and B would exceed the public land dedication requirement for this property. Please advise if this is not correct.

5. Please insure that the ramps meet ADA/City standards during the review of the construction plans.

Comments for the Developer:

1. Regarding the trail along the southern portion of the property on Tract B, we would ultimately like to see a completed 8-foot trail across the property that would connect to Lowell Boulevard. We would like to see this trail constructed with the development. If there is a possibility to acquire land at the southeast corner of Misty St. and Lowell then the trail could reach Lowell to the south of Misty. Otherwise, trail will need to cross Misty from Tract B and continue on to Lowell on the north side of Misty.

Another concern regarding this trail is the alignment at the southeast corner of the property, where the trail access appears to intersect with the existing driveway on the neighboring residence. We do not want the trail to encroach into this driveway, as we would like to have it built with the construction of the development and do not want it blocking the driveway access of the neighboring residence.
2. Our understanding of the requested bike lanes along Lowell is that our traffic engineer has agreed to accept cash-in-lieu for this improvement so that the entire Lowell bike lane can be installed at the same time. Please advise us if this is not correct.

3. We believe that crosswalks will be necessary at the intersection of Misty St. and the road connecting to the parking lot at the western side of the site. It appears that crosswalks would be appropriate across three sides of this intersection.

4. Regarding Tract B along the trail, we would like to see irrigated sod or irrigated native vegetation on this tract. It is unclear what is currently being proposed here.
Open Space and Trails:

1. After reviewing the plans for Goodhue ditch and the surrounding vegetation, we are still concerned about the plan to relocate and pipe the ditch, and to remove all of the existing vegetation. We would like the developer to explore possible alternatives to preserving some of the natural features in this area to create a buffer between the development and the Northwest Parkway.

There are several large, old Cottonwood trees on the site and a couple of mature willow trees. These trees are located along the northwestern boundary of the site. We would like the developer to explore a grading plan that could accommodate the largest trees, as their location on the edge of the project area shouldn’t affect the development plans too adversely. There is a cluster of mature trees very close to the railroad tracks. We assume that the grading plan would match the current grade of the railroad tracks, so we believe that it would be possible to preserve the trees in this area at least. There is a large raptor nest in one of these trees that appears to be actively used (hawks were observed circling above the trees during site visits). Also, we assume that there will be irrigation going in with the development in this area that could insure the survival of the trees even if the ditch is piped.

Despite the agreement between the developer and the ditch company to pipe the ditch, we believe some preservation along this fringe of the development area is possible and would be an asset to this project. The City and County of Broomfield was not party to prior agreements regarding the ditch and the vegetation in this area.