

**CITY OF BOULDER OPEN SPACE & MOUNTAIN PARKS**  
**Prairie Dog Working Group**  
**66 S. Cherryvale Road, Boulder, CO 80303**  
**March 6, 2017**  
**Meeting Summary - FINAL**

**ATTENDANCE**

*Participants:* Dan Brandemuehl, Kristin Cannon, Patrick Comer, Aaron Cook, Keri Konold Davies, Jeff Edson, Deborah Jones, Amber Largent, Amy Masching, Valerie Matheson, Andy Pelster, Carse Pustmueller, Eric Sims, Jr., Lindsey Sterling Krank, Heather Swanson, John Vickery, Jon Wold.

*Observers and Subject Experts:* Rella Abernathy, Justin Atherton-Wood, Kirk Brown, Joy Master, John Potter, Susan Spaulding, Paula Stephani, Maria Wasson.

*Facilitation:* Heather Bergman, Sam Haas

<b>Action Items</b>	
<b>Everyone</b>	Review the transcript from the August 2016 City Council meeting. (Link to the video is: <a href="#">Here</a> .)
<b>Everyone</b>	Send any questions that you know you will want to ask to Heather Swanson before the next meeting so that she can prepare.
<b>Everyone</b>	Re-read the Charter.

**INTRODUCTON**

After Working Group members introduced themselves, the facilitator explained that Jesse Rounds, of Boulder County Parks and Open Space, decided to take a backseat at the table but will ensure that a Boulder County representative will attend every meeting to observe and answer questions.

**PUBLIC COMMENT**

As discussed by Working Group members during the previous meeting, the facilitator began the meeting by providing ten minutes for verbal public comment. Each person was allowed three minutes to speak. The individual comments are summarized below.

*Paula Stephani:*

- Stephani, a resident who advocated for the Armory colony, outlined two priorities that she believed would contribute to prairie dog conservation. With nearly a 98% decline in the prairie dog population, Stephani emphasized the ineffectiveness of isolated prairie dog management policies.
- For Stephani, the first priority should be to establish conservation strategies and to commit to cultivating one large block of habitat where colonies are the primary use. The second priority should be to design an effective plague mitigation strategy, at least on the Southern grassland, where Sylvatic Plague has been the primary reason for decimation.

*Maria Wasson:*

- Wasson, a farmer, lives on a property adjacent to Boulder County Open Space land. She articulated an interest in finding a way to collaborate with the City and learn the best way to prevent prairie dogs from starting colonies on her land.

## **REVIEW OF PROTOCOLS DOCUMENT**

Working Group members reviewed and finalized the document that outlined the protocols and ground rules of the Working Group. Working Group members offered the following revisions:

- Members agreed that there would be ten minutes provided *in total* for public comment. There will be dedicated time for summaries of written comment included in the ten minutes.
- Jon Wold informed the Working Group that there might be an alternate representative from the Parks and Recreation Department at future meetings.

## **STAFF PRESENTATIONS**

Boulder staff provided informational presentations on the following topics:

- Prairie Dog Ecology and Management
- History of Ordinances and Policies in Boulder
- Current Ordinances and Policies in Boulder, including City use of lethal control and 2017 relocation priorities
- Agriculture operations in Boulder
- Present status of prairie dogs on State and City lands
- City Measurement of Management on Protected Grasslands and Relocation Policies and Practices
- Experiences with Relocation and Remaining Challenges
- Plague 101

*Note:* The PowerPoint presentation will be available [Here](#). Highlights from the presentation are captured below.

### *Prairie Dog Ecology and Management:*

Heather Swanson, Wildlife Ecologist for Boulder Open Space and Mountain Parks, presented the history and management of prairie dogs within Boulder. Kristin Cannon, District Wildlife Manager for Colorado Parks and Wildlife, provided information on prairie dog management at the State level.

Federal Level:

- There are five species of prairie dogs in North America. There are three species of prairie dog in Colorado. Boulder County is home to the Black-Tailed Prairie Dog. It is estimated that only one or two percent of their historic habitat remains, due to human land uses.
- There are two species that are endangered at the Federal level under the Endangered Species Act: The Mexican Prairie Dog and the Utah Prairie Dog.

#### State Level:

- At the State level, Colorado Parks and Wildlife regulates the possession and transport of wildlife (Colorado 22-1-106 C.R.S.).
- The Colorado Parks and Wildlife Commission (#303(3)) sets regulations regarding wildlife. These regulations can be changed more easily than state law. *For reference, the Colorado Parks and Wildlife Furbearers and Small Game Regulation is attached to the summary.*
- State law maintains that individuals must obtain a permit from the state to move prairie dogs. Black-Tailed Prairie Dogs are also on the prohibited species list (WCR #008), meaning they cannot be possessed as pets.
- At the State level, all three Colorado prairie dogs are considered a species of special concern (including the Black-Tailed Prairie Dog). They are also listed as a game species so can be hunted during hunting season. Under the state license statute, there is an exemption for the number of prairie dogs that can be lethally controlled without a license.

#### Regulatory Status of Black-Tailed Prairie Dogs:

- Prairie dogs are listed as a species of special concern in the Boulder Valley Comprehensive Plan and the Boulder County Comprehensive Plan. Boulder County and the City of Boulder have their own prairie dog management plans and policies with the common goal of prairie dog conservation yet with different approaches to balancing competing uses.
- The County and the City of Boulder collaborate on the management of adjacent properties to ensure consistency in plans and implementation. On jointly-owned properties there is a memorandum of understanding that designates the lead agency and clarifies that the lead agency's management protocols apply.

#### *City of Boulder Prairie Dog Management*

Val Matheson, Urban Wildlife Conservation Coordinator for the City of Boulder, presented the history of ordinances and policies in Boulder, the current ordinances and policies, the Urban Wildlife Management Plan, the Integrated Pest Management Policy, and the City's use of lethal control.

#### History of Ordinances and Policies in Boulder:

- During the 1990's, there was growing concern about the diminishing prairie dog species. Large fields of colonies were getting killed and poisoned while at the same time they were being considered for the endangered species list status at the Federal level.
- In 2000, the City of Boulder developed an ordinance prohibiting lethal control in the Boulder revised code. Modifications of this code took place from 2000 to 2001 that prohibited the destruction or damage of burrows. *(This ordinance will be included as an attachment to the summary).* This ordinance also prohibited the killing or poisoning of prairie dogs on private land.

- In the year 2003, the State informed the City of Boulder that the City’s ordinance was inconsistent with State law and that the City could not prohibit a licensed person from killing prairie dogs.

Current Ordinances and Policies in Boulder:

- In 2002, the City developed an Integrated Pest Management (IPM) policy. The goal of this policy was to utilize the most environmentally sound approach to pest management and to reduce or eliminate, where possible, the volume and toxicity of pest control treatments. Therefore, non-pesticide alternatives were given preference over chemical controls.
- The IPM policy uses a “whole systems” approach, considering the target species in relation to the entire ecosystem.
- In 2005, the City developed a new prairie dog Wildlife Protection Ordinance that complied with State law (6-1-11/12). This ordinance placed a limit on lethal means of control for prairie dogs. The City also conducted a survey of prairie dogs located on private land in City limits in 2012 that showed a population that occupied approximately 75 acres.
- The goals of this ordinance were to:
  - Protect natural ecosystems
  - Minimize inhumane treatment of prairie dogs
  - Balance wildlife protection with urban land uses
  - Minimize the use of pesticides
- The Wildlife Protection Ordinance rests on a six-step decision-making process that aims to incentivize relocation or means other than lethal control:
  1. Minimize other land-use conflicts.
  2. Remove only the portion of animals that conflict with the development/other use.
  3. Relocate the animals.
  4. If none of these are possible, donate the bodies to an animal recovery program.
  5. Trap animals and use individual lethal control with Co2 so that other non-targeted species are not killed.
  6. If this is not possible, use pesticides and pay the fee to the mitigation fund (owner must pay \$1,200 per acre).
- In 2006, the City passed the Urban Wildlife Management Plan to guide the management of prairie dogs on City property. This plan allowed the City to map out conservation opportunities for all prairie dog colonies within the City. The guiding principal of the Wildlife Management plan was an emphasis on humane non-lethal control methods, recognizing that urban areas are primarily occupied by humans or other land-uses.
- With the goal of balancing environmental, economic, and social needs, the Wildlife Management Plan set different colony designations:
  - Long-term protection (colonies on land where there are no potential areas for conflict)

- Interim protection (colonies on land where there are development plans but nothing immediate)
- Near-term removal (colonies on land where there are irresolvable conflicts)
- In 2010, the City passed the Grassland Ecosystem Management Plan. This plan provides a framework for the conservation and management of natural ecosystems and agricultural landscapes within grassland habitats. There are eight conservation targets for the Grassland Plan that include the Black-Tailed Prairie Dog and associated species, mixed grass prairie mosaic, and xeric tallgrass prairie. Boulder has several types of grassland:
  - OSMP land is primarily tall grass prairie.
  - Because Boulder has unique weather patterns and is a moist riparian area, the soils trap more moisture which means Boulder is home to both wet and dry short and tall prairie areas.
  - Tallgrass prairie is one of the most threatened ecosystems in the world, and OSMP preserves large patches. Tallgrass prairie is home to many species that depend on a habitat without prairie dog occupation.
- The Open Space Mountain Park's (OSMP) Charter goals are to:
  - Preserve or restore natural areas characterized by or including terrain, geologic formations, and flora or fauna that are unusual, unique or scientifically valuable.
  - Preserve or restore water resources, wildlife habitats, or fragile ecosystems.
  - Preserve the agricultural uses and land that is suitable for agricultural production.
- The OSMP Charter was voted on and is in the City's Municipal Code. The Grassland Plan was created by staff and underwent a process of community input, expert review, and public hearings and was adopted at the City plans and policies level.

#### Implementation of City Ordinances and Policies:

- The City rarely uses insecticide due to potential impacts on people and the environment. The City has never used pyrethroid spray for mosquitos, even during the height of West Nile. The City also has limited tree injections for the Emerald Ash Borer. Delta Dust insecticide is currently used in prairie dog colonies as recommended by the State and County to prevent disease transmission and protect human health. Delta Dust kills the fleas that transmit the plague.
- The challenge associated with using Delta Dust is that it is often not used on relocation receiving sites to protect prairie dogs from the plague. In 2015, after a large-scale relocation effort in the Southern grasslands, almost the entire population died due to the plague transmitted from the receiving site.

#### Boulder City Use of Lethal Control:

- To limit the use of lethal control when feasible, the City requires a permit application process which includes a demonstration of effort by the applicant to go through the six-step decision-making process. The landowner must also show an effort to relocate the prairie dogs and prove that the land will be developed within 15 months or be adversely impacted by the presence of prairie dogs. The landowner

must also have an adequate plan designed to prevent prairie dog reentry onto their property.

- Since 2005, the City has received 16 lethal control permit applications total. 11 of those permits were issued; three applications withdrew; one was not issued because passive relocation was feasible; one was deemed “incomplete.” The 11 permit approvals resulted in the death of approximately 685 prairie dogs.
- There are challenges that remain. Removal areas far outnumber the available relocation receiving sites (there are approximately 700-800 acres of land that need relocation). The City has prioritized the relocation of prairie dogs from City removal sites to City receiving sites. However, there is no ordinance that identifies priorities. During the August 2016 City Council meeting, Council asked that the City to shift their operational practice and prioritize prairie dogs that are subject to imminent lethal control regardless of property ownership.

#### Boulder City Relocation Priorities for 2017:

- In December 2016, the City received a lethal control permit application. It fits the relocation priority based on the Council’s direction. The challenge is that the City must adhere to ordinance timelines but is also hoping to integrate the recommendations from the Working Group on methodology into the decision.
- The City has also prioritized the relocation of the Foothills Community Park “recolonizers.” Both the private property development site and the Foothills Community Park colonies will hopefully be relocated to the Damyanovitch property.

#### *Agricultural Operations in Boulder*

Andy Pelster, Agricultural Stewardship Supervisor for Open Space Mountain Parks, presented an overview of Boulder’s agricultural operations, the agricultural management plan, and the interface between agriculture and prairie dog populations.

#### Overview of Boulder’s Agriculture Program:

- When the City bought property in 1967-1986, the agriculture community played a large role in managing the land. However, there was not enough staff to manage the water rights of the land. To remedy this, Boulder decided to lease the land to local farms. Boulder currently leases 15,000 acres (of mostly native grassland) to 26 farmers and has over 6,000 acres of irrigated land. To keep the water rights, the City must show a historic use of the lands which means the City risks the value of the land by transferring the water to allow for prairie dog occupation.
- The Agriculture Program was a target in the Grassland Ecosystem Management Plan. The grassland planning area includes 25,000 acres (15,000 of which is leased, and 11,000 of which is native grassland).
- The Grassland Ecosystem Management Plan seeks to conserve prairie dogs in the best areas while managing conflict with other land-use priorities. The plan manages colonies based on several designations:
  - Grassland Preserves
  - Prairie dog conservation areas
  - Multiple objective areas

- Transition areas (this is the area that overlaps most with irrigated agriculture)
- Removal areas
- Viability measurements
- Monitoring

#### Agriculture Resources Management Plan:

- This plan is currently under development. Its objectives are to:
  - Identify the best opportunities for local food production on 80-250 acres for diversified vegetation and livestock;
  - Review activities that are allowed on agricultural lands (farm stands, events, etc.);
  - Develop and formalize recommendations for best management practices;
  - Review the leasing process to formalize stewardship plans with a periodic review of agriculture leasing rates;
  - Identify opportunities to provide additional support to the agriculture community. Many farmers are aging and do not have heirs and the City could help them write a transition plan.
- The greatest area of conflict between the Agriculture Program and prairie dog management is irrigable and irrigated landscape. Irrigable landscape often is a significant factor in identifying transition and removal areas on OSMP land for prairie dogs.

#### *Current Status of Prairie Dog Occupation*

Kristin Cannon, of Colorado Parks and Wildlife, Heather Swanson, of Boulder Open Space and Mountain Parks, and Jon Wold, of Boulder Parks and Recreation Department, presented on the current status of prairie dogs at the State and City levels.

#### State Prairie Dog Occupation:

- In 2015, the State conducted a census of prairie dog habitat on eastern plains in conjunction with the Western Association of Fish and Wildlife Agencies (WAFWA). The census found that over 500,000 acres are occupied by prairie dogs. Prairie dogs are classified as “abundant” as defined by the Conservation Plan for Grassland Species.
- The census found that there have been approximately 300 black-footed ferrets released at six sites. *The Conservation plan and methodology of the survey is attached to the summary.*

#### Boulder City Prairie Occupation:

- The updated document designates 6,603 out of the 25,000 acres suitable for prairie dog habitat. This accounts for slope, rockiness of soil, and plant community.
- The total acreage of prairie dog population is 6,409.
  - Grassland Preserve: 3,522 acres are occupied by prairie dogs. The desired occupancy is 10-26% (approximately 800-2,080 acres)
  - Prairie dog conservation area: 589 acres are occupied.

- Multiple objective areas: 799 acres are occupied.
- Removal areas: 471 acres are occupied.
- Adding the Grassland Preserve land and the prairie dog conservation area together, there are approximately 4,111 acres available as potential receiving sites.

#### Current Status of Prairie dogs on City Lands:

- In 2016, OSMP collected the following data:
  - Grassland Preserves: 2,100 acres occupied
  - Prairie dog conservation area: 291 acres occupied
  - Multiple objective areas: 394 acres occupied
  - Transition areas: 583 acres occupied
  - Removal areas: 257 acres occupied
- In 2016, the Parks and Recreation Department determined that the total acres of prairie dog occupation on their land were 441.5. Of that 451.5, 239.5 acres are protected areas and 202 acres are near or long-term removal areas. They use the following designations to map colony types:
  - Habitat conservation areas
  - To be developed areas
  - Adjacent colonies
  - Relocated colonies

#### *City Measurement of Management on Protected Grasslands and Relocation Policies and Practices*

Heather Swanson, of Boulder Open Space and Mountain Parks, presented on how the City measures the health and status of prairie dog colonies. Kristin Cannon, of Colorado Parks and Wildlife, and Swanson co-presented the relocation permit requirements for the State and City levels.

#### Measurement of Health and Status of Boulder Prairie Dog Colonies:

- The City’s conservation objective for 2019, as defined by the viability indicators, is to ensure that prairie dogs, prairie dog commensals, and prairie dog predator populations are within the acceptable range of variation. This would mean that the total population and distribution meets the desired indicators set by the City.
- Viability indicator status: Currently, the City has a “good” rating in the category that measures occupied and protected status. The City also rates “good” in the category that measures the extent of active colonies in grassland areas. The City also has a “good” rating in the category that ranks the number of colonies with nesting and burrowing owls.
- By 2019, the City must maintain the percent of colonies in protected areas, increase occupancy on the southern Grassland Preserve while decreasing occupancy on the northern and eastern Grassland Preserves. The City must also increase the number of colonies with burrowing owl nests, and decrease the acreage of prairie dog occupancy within the grassland planning area (the area covered by the Grassland Ecosystem Management Plan).

### Relocation Policy and Practices:

- At the State level, relocation permits must specify an appropriate habitat and describe how the applicant plans to mitigate for the impacts of relocation on neighboring landowners. The applicant must also prove the correct density (less than 16 prairie dogs per acre) and seek approval from the County Commissioner for any inter-county relocations.
- To complete a mitigation plan, applicants must contact neighboring landowners to get feedback. If neighboring landowners do not want the prairie dogs on the adjacent property, they must specify the potential negative impact.
- At the State level, an initial assessment is conducted by conservation biologists then permits are signed by regional managers.
- At the City level, applicants must obtain any State or Federal permits.

### *Experiences with Relocation and Remaining Challenges:*

Heather Swanson, of Boulder Open Space and Mountain Parks, summarized Boulder's previous experience with relocation.

### Timeline:

- 2000 – 2003: Parks and Recreation Dam relocations within colonies
- 2008 – 2009: Valmont Bike Park and East Boulder Community Park
- 2010 – 2011: Richardson permit application denied by State.
- 2013 – 2014: Relocation to Waneka
  - 647 prairie dogs from Foothills Park
  - Eight prairie dogs from Granit property
  - 412 prairie dogs OSMP transition and removal areas
- 2016: Damyonovich relocation

### Possible Receiving Sites:

- The Waneka Grassland Preserve is now unoccupied after a plague outbreak in the previous colony. There are a substantial number of nest boxes left over.
- Prairie dog conservation areas that are being assessed for public support and mitigation options are also a possibility.

### Relocation Challenges:

- The neighbor often objects to being adjacent to a receiving site.
- The areas needed for relocation exceed potential receiving sites.
- It is difficult to balance the goals of overall grassland health with the need to relocate as many prairie dogs as possible.
- The intersection of prairie dogs with agricultural needs continues to be a challenge.
- It is difficult to manage the details and implications of moving private land prairie dogs to City land.
- There are continued disagreements among community members about relocation methods

### *Plague 101:*

Heather Swanson, of Boulder Open Space and Mountain Parks, provided a brief overview of the implications of the plague on prairie dog populations.

- Plague is a non-native bacteria disease transmitted primarily by fleas. Prairie dogs are extremely susceptible once infected.
- There are two types of plague: epizootic, which results in large-scale death, and enzootic, which results in a localized spread.
- There are several control methods available for fleas: insecticidal dust applied in and around the entrance to burrows and insecticide applied directly to the prairie dog.
- Control methods available to control against the plague also include: injectable vaccine and oral vaccination. To treat the plague, it is possible to use antibiotics.
- Boulder City follows the state requirements for removing prairie dogs from the sending site. The State requirements are to first apply dust to the entrance of active burrows at the sending site, then spray individual animals with insecticidal spray after they are trapped for removal.
- The plague has moved through Boulder's prairie dog population twice since the City started mapping. Once from 1994-1997, and once from 2005-present.
- Remaining challenges include unknown factors such as the vectors and conditions that lead to epizootic outbreaks. Insecticides are also expensive.

#### **PLAN FOR NEXT MEETING**

Working Group members agreed to address the following topics at the next meeting on March 20, 2017.

- Debrief of the Armory relocation.
- Debrief of the Richardson permit application.
- Review the practices and application of Delta Dust.
- Identify criteria for evaluating recommendations.