

## FINAL

### SOUTH PARK INDIVIDUAL POPULATION AREA ACTION PLAN

JANUARY 2010

The Implementation Planning Workshop (IPW) for the South Park Individual Population Area (SP IPA) was held on January 23, 2010 at the Fairbarn (Fairplay Fair Grounds) in Fairplay. Ten participants representing the CDOW, BLM, USFS, NRCS, State Parks, and private citizens met and ranked the issues affecting GUPD in the SP IPA. Participation was open to anyone interested in prairie dog conservation and management. Attendees reviewed issues thought to negatively impact the GUPD and ranked their significance in the SP IPA.

The issues ranking process resulted in disease, population monitoring, Wyoming ground squirrel, and rangeland conditions as the highest potential threats to GUPD in the SP IPA. This list is not meant to exclude other important issues, but rather to provide a starting point for identifying some short term action priorities to be implemented on the ground to help maintain and conserve GUPD populations in the IPA.

The participants reviewed the possible strategies identified in the conservation assessment and selected the top 2 strategies for each of the highest ranked issues for possible implementation in the 3–5 year SP IPA action plan. With some issues (i.e., Disease) there are more than 2 strategies because it was felt that there was some potential overlap and they could be accomplished together. The list of strategies selected for each issue follow:

#### Disease

- **3.3.1.8:** When optimal dusting protocol or other appropriate flea control methodologies are developed, determine priority GUPD areas for dusting application.
- **3.3.1.9:** Work with land management agencies to gain approval for application of dust or other appropriate flea control methodologies in priority GUPD areas.
- **3.3.1.10:** Apply dust or other appropriate flea control methodologies in priority GUPD areas, as per developed protocol.
- **3.3.1.12:** Test oral plague vaccine efficacy in different field situations GUPDs.
- **3.3.1.6:** Apply oral plague vaccine in GUPD priority areas, as per developed protocol.
- **3.5.1.1:** Improve public understanding of the role of prairie dogs in ecosystems (e.g., website, pamphlets, radio and TV shows).

## **Population Monitoring**

- **7.1.1.1:** Implement occupancy sampling every 3 years (start year for GUPDs was 2005; start year for WTPDs is 2004) as per current protocol. If the range-wide trigger (Western Association of Fish and Wildlife Agencies 2007) is reached, increase sampling frequency to annual sampling. Due to the fact that the statewide occupancy sampling frame did not find GUPDs in SP, a site specific sampling frame will be developed for the SP IPA to determine distribution and populations trends for both GUPDs and Wyoming ground squirrels. Once a sampling protocol is established, the site specific sampling will occur every three years in conjunction with the statewide GUPD survey.
- **7.1.2.2:** Intensively monitor a GUPD site for long-term, site specific data to compare with variation in population estimate.
- **7.1.2.3:** Develop monitoring schemes in areas identified for implementation of GUPD and WTPD conservation strategies to identify responses of populations to management.

## **Wyoming Ground Squirrel**

- **2.3.1.1:** Develop and implement a plague management/reduction program in areas that contain both WYGSs and prairie dogs (e.g., dust colonies, oral vaccine; see “Disease” issue section).
- **2.3.3.1:** Investigate the competitive interaction between WYGSs and GUPD.
- **2.3.2.1:** Translocate GUPDs from nearby locations to augment populations (see “Population Reestablishment” strategy section).

## **Rangeland condition**

- **9.3.1.2:** Explore the use of local work groups for GUPD conservation in Colorado.
- **9.4.2.3:** Consider implementation of an assurance program (e.g., CCAA) on private lands for habitat areas deemed to be important for GUPD ecosystem maintenance.
- **9.4.1.2:** Develop a rangeland management BMP handbook for GUPDs and WTPDs based on valid research results (under Objective 9.1.1), to include a scale-appropriate assessment tool for rangeland condition.

## **Action Plan:**

### **Disease**

Plague is the greatest single threat to maintaining viable GUPDs in the SP IPA. There is a lack of understanding about the epidemiology and dynamics of the disease in GUPD populations. Most of the strategies identified within the disease discussions revolved around maintaining the known (small) populations of GUPDs at Eleven Mile and Spinney. Establishment of protocols for dusting should be the first activities accomplished in the 3–5 year action plan on the existing GUPD colonies. Monitoring of dusting and other flea control methodologies is needed to determine effectiveness and benefit to prairie dog conservation.

- **Task:** Work with land management agencies and State Parks to gain approval for dusting and apply flea control methods.
- **Cooperators:** BLM, USFS, State Parks
- **Lead agency:** CDOW
- **Cost:** Dusting materials, technicians for applying dust (\$20,000 per year)
- **Timeline:**
  - APRIL 2010 TO JULY 2010 – Gain approval for application of dust

JULY 2010 TO SEPTEMBER 2012– Apply dust to identified colonies

- **Task:** Monitor impacts of dusting methods between treated and controlled colonies.
- **Cooperators:** BLM, USFS, State Parks
- **Lead agency:** CDOW
- **Cost:** Technicians to complete mapping of colonies and population assessments including visual count surveys (\$15,000 per year)
- **Timeline:**
  - APRIL 2010 TO AUGUST 2010 – Develop a monitoring protocol to assess impacts of dusting on prairie dog populations.

JULY 2010 TO SEPTEMBER 2012– Conduct surveys prior to dusting and continue surveys as dusting is completed at treatment colonies in comparison to non-treatment colonies.

SEPTEMBER 2012 - Start discussion with private landowners to prioritize additional areas on private lands for dusting (depending on results from earlier treated colonies).

### **Population Monitoring**

A common issue that arose throughout the workshop was that there is little understanding of the current distribution and population size of GUPDs in the SP IPA. While there are two years of occupancy monitoring data (from 2005 and 2008) that indicate a relatively stable trend in

occupancy state wide, no sampling plots in the SP IPA had GUPDs. Due to the fact that the statewide occupancy sampling did not find GUPDs in SP, a site specific sampling frame will be developed specifically for the SP IPA to determine distribution and populations trends for GUPDs. Wyoming ground squirrels will also be targeted in occupancy sampling as well, to determine trends in SP. Once a sampling protocol is established, the site specific sampling will occur every three years in conjunction with the statewide GUPD survey.

- **Task:** Continue occupancy estimation every 3 years in conjunction with the state wide GUPD surveys. The next year of planned occupancy estimation for GUPD is 2013.
- **Lead Agency:** CDOW
- **Cooperators:** BLM, Private Landowners, USFS, State Parks
- **Cost:** Previous occupancy work contracted to CSU and reported by Andelt et al. (2009) estimated total statewide cost to determine occupancy by GUPDs to be ~\$130,000. To complete occupancy work for GUPDs in SP is estimated to cost ~\$35,000 every three years.
- **Timeline:**

FEBRUARY 2010 TO SEPTEMBER 2010 – Do preparation work, hire seasonal technicians, gain landowner and cooperating agency approval to survey plots, secure housing for 2010 survey.

JUNE 2010 – Conduct occupancy surveys in SP.

SEPTEMBER 2010-DECEMBER 2010 – Compile and analyze data; produce report.

- **Task:** Establish/investigate survey methods and monitoring protocols to determine GUPD distribution and abundance within the SP IPA. Earliest feasible field test of protocol would be 2011.
- **Lead Agency:** CDOW
- **Cooperators:** All other interested parties.
- **Cost:** Support of CDOW staff time and other incidental expenses to do research on methodology and develop a robust design for documenting large scale population abundance estimates ~\$10,000.
- **Timeline:**

DECEMBER 2010 TO DECEMBER 2011 – Investigate the feasibility of developing a protocol and identify potential funding for implementation of protocol.

### **Wyoming Ground Squirrel**

The Wyoming ground squirrel (WYGS) is a species that may incur a competitive advantage over prairie dogs when populations are reduced to sufficiently low levels after a plague epizootic. It has been observed in SP that WYGS have increased their range since the 1940s while the GUPD range has contracted significantly. Ground squirrels are susceptible to plague, but because of their smaller body size looser colonial nature, and extended hibernation period, transmission rates may be reduced, resulting in WYGSs being more resistant to the disease than are prairie dogs. Thus, when prairie dog populations begin to rebound in areas where WYGSs are present, the prairie dogs are hit again by plague and cannot recover to pre-epizootic densities. Prairie

dogs may become rare or even extinct in areas where this occurs, due to a lack of competitive advantage.

- **Task:** Implement a plague management/reduction program in areas that contain both WYGSs and prairie dogs.
- **Lead Agency:** CDOW.
- **Cooperators:** All other interested parties.
- **Cost:** The cost will be incorporated from disease monitoring
- **Timeline:**  
AUGUST 2011 TO AUGUST 2013 – see Disease for more detailed information.
  
- **Task:** Investigate the competitive interaction between WYGSs and GUPD.
- **Lead Agency:** CDOW
- **Cooperators:** All other interested parties.
- **Cost:** The cost may be incorporated from other work being done under Disease, State Wildlife Grants and Universities.
- **Timeline:**  
January 2011 – Invite Universities to develop proposals and hire graduate students to research the interaction

### **Rangeland condition**

In Colorado, non-native plants have infiltrated the ranges of GUPDs. Information is needed to adequately assess the impact of these plant community changes to prairie dog population dynamics.

- **Task:** Explore the use of local work groups for GUPD conservation in SP.
- **Lead Agency:** CDOW.
- **Cooperators:** All other interested parties.
- **Timeline:**

NOVEMBER 2010 TO NOVEMBER 2011 – Determine if a working group is a feasible mechanism to address rangeland condition changes on prairie dogs

- **Task:** Develop a rangeland management BMP handbook for GUPDs in SP.
- **Lead Agency:** CDOW.
- **Cooperators:** BLM, USFS, NRCS, Universities.
- **Timeline:** To be determined

### **Plan Implementation and Follow-up**

The CDOW will hold an annual meeting in May in the SP IPA to update the community on the implementation of the action plan and evaluate the success of each year's activities. CDOW will schedule this meeting at a convenient time and location so that interested stakeholders will have the ability to attend. In addition, the local CDOW biologist will complete a written annual report for public review.

