

NORTHWEST INDIVIDUAL POPULATION AREA ACTION PLAN

JUNE 2009

The Implementation Planning Workshop for the WTPD Northwest Individual Population Area (NW IPA) was held on 10 June 2009 at the Holiday Inn in Craig. Twenty five participants representing CDOW, BLM, USFWS, Moffat County, Rio Blanco County, private landowners, conservation groups, and the energy industry (both coal and oil/gas) met and ranked the issues potentially affecting WTPDs in the NW IPA. Participation was open to anyone interested in prairie dog conservation and management. Attendees reviewed issues thought to potentially impact WTPD and ranked their significance in the NWIPA. Results of ranked issues in order of priority included: disease, population monitoring, associated species management, energy development, and range condition. The list was not intended to exclude other potentially important issues, but rather to provide a starting point for identifying short-term action priorities to be implemented to help conserve WTPD in the NW IPA.

The top strategies for each issue were selected for possible implementation in the 3-5 year NWIPA action plan. The list of strategies for each issue follows:

Disease

- **3.1.1.7** Intensively monitor (long-term) a sample of WTPD colonies throughout their range for evidence of exposure to plague, to develop a model that predicts where it is likely to occur in prairie dogs in the future.
- **3.2.1.2** Determine the spatial and temporal structure of plague surveillance and monitoring sites needed in WTPD range to provide appropriate data.
- **3.2.1.3** Implement plague monitoring and surveillance efforts for WTPD management needs.
- **3.3.1.4** If an effective oral plague vaccine for WTPDs is developed, determine priority areas for distribution.
- **3.3.1.8** When optimal dusting protocol or other appropriate flea control methodologies are developed, determine priority WTPD areas for application.
- **3.4.1.1** Monitor WTPD dynamics and demography to understand population recovery following plague outbreaks.

Population Monitoring

- **7.1.1.1** Implement occupancy sampling every 3 years as per current protocol.
- **7.1.2.1** Continue intensive sampling at WTPD black-footed ferret areas to evaluate for ferrets and provide long-term site-specific data.
- **7.1.2.2** Intensively monitor a WTPD site for long-term site-specific data to compare with variation in population estimate.

Associated Species

- **2.2.1.2** Develop and implement monitoring strategies for associated species (e.g., burrowing owl, ferruginous hawk).

Energy and Mineral Development

- **4.1.1** (Objective) Design and initiate research to examine the impacts of energy and mineral development on WTPD and their ecosystems. (Strategies 4.1.1.2 through 4.1.1.5, including the development of funding partnerships)
- **4.2.1.2** Monitor WTPD distribution and occupancy at sites prior to, during, and after energy and/or mineral development.

Rangeland Condition

- **9.8.1.1** Identify areas in which fire might allow and encourage WTPD colonization and expansion.
- **9.8.1.2** Use prescribed burning at identified areas to improve quality and quantity of WTPD habitat.
- **9.8.1.5** Where appropriate for WTPD conservation allow naturally started fires to burn.

ACTION PLAN:

Disease

Plague was identified as the primary issue affecting WTPD in northwest Colorado. Most of the strategies identified within the disease discussions revolved around gaining a better understanding of how the disease operates on the landscape, its long-term effects on WTPD populations, and methods to reduce impacts of plague on WTPD populations.

- **Task:** Continue to support CDOW Wildlife Health Section that is currently surveying plague distribution and seasonality at WTPD complexes in northwest Colorado. A CDOW plague researcher is working to determine efficacy of various plague management approaches in maintaining WTPD populations, as well as other aspects of plague ecology.
- **Lead Agency:** CDOW
- **Cooperators:** BLM
- **Cost:** CDOW is currently funding the research and survey efforts for plague in Wolf Creek at the cost of approximately \$110,000 per year.
- **Timeline:** Research and survey efforts have been initiated and will continue as a 12-18 month field study evaluating the effects of deltamethrin application on flea abundance and on WTPD population density and abundance. Other aspects of plague research will continue after completion of this first project phase.

- **Task:** Complete preliminary work to gain approval for plague vaccine field trials in northwest Colorado – including gaining necessary NEPA approvals for work on BLM land, and negotiations with USFWS and USGS to solicit vaccine trials within a WTPD site in Colorado.
- **Lead Agency:** CDOW
- **Cooperators:** BLM, USFWS, USGS, Private Landowners
- **Cost:** Staff at two BLM offices to complete NEPA work (\$10,000)

- **Timeline:**
DECEMBER 2009 TO MAY 2010 – Introduce actions with BLM White River and Little Snake Field Offices to allow for field trials of oral plague vaccine.
DECEMBER 2009 TO DECEMBER 2010 – Work with interested parties to develop field trial protocol for oral plague vaccine delivery and efficacy.

Population Monitoring

A common issue that arose throughout the workshop was that there is little understanding of the current population size and trend of WTPD in northwest Colorado. While there are two years of occupancy monitoring data (from 2005 and 2008) that indicate a relatively stable trend in occupancy, nothing is known about overall abundance, population density, current overall distribution, and whether the current population in northwest Colorado represents “too many, too few, or just about the right number.”

- **Task:** Continue occupancy estimation every 3 years in northwest Colorado as per WAFWA agreement and protocol. The next year of planned occupancy estimation for WTPD is 2011.
- **Lead Agency:** CDOW
- **Cooperators:** BLM, Private Landowners, NPS, State Land Board
- **Cost:** Previous occupancy work contracted to CSU and reported by Andelt et al. (2009) estimated total statewide cost to determine occupancy by GUPDs and WTPDs to be ~\$250,000. To complete occupancy work for WTPD in just northwest Colorado might reasonably cost ~\$35,000 every three years.
- **Timeline:**
NOVEMBER 2010 TO MARCH 2011 – Do preparation work, hire seasonal technicians, gain landowner and cooperating agency approval to survey plots, secure housing for 2011 survey.
MARCH 2011 TO JULY 2011 – Conduct occupancy surveys in northwest Colorado.
AUGUST 2011 TO DECEMBER 2011 – Compile and analyze data; produce report.
- **Task:** Investigate whether a survey/monitoring protocol to determine WTPD abundance and density within the NW IPA is feasible and/or needed. 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 2009 TO DECEMBER 2010 – Investigate the feasibility of developing a protocol and identify potential funding for implementation of protocol.

Associated Species

Understanding population status and trend of species strongly associated with WTPD in northwest Colorado (eg. black-footed ferret, burrowing owl, ferruginous hawk) was identified by

the group as one way of approaching the **Population Monitoring** task. That is, if there are healthy populations of associated species, then it can be presumed that there are healthy WTPD populations providing some degree of ecosystem function at a landscape scale.

- **Task:** Develop and implement a monitoring protocol for species strongly associated with WTPDs in northwest Colorado.
- **Lead Agency:** CDOW
- **Cooperators:** BLM, NPS, USFWS, Private Landowners
- **Cost:** Staff time to identify appropriate metrics, species to focus on, protocol development, and sampling sites - \$5,000. Technician time to carry out monitoring/surveys – 2 technicians for 4 months each - \$30,000 for one field season.
- **Timeline:**
NOVEMBER 2010 TO MARCH 2011 – Identify target species and potential survey techniques. Develop monitoring protocol,
MARCH 2011 TO JULY 2014 – Implement monitoring protocol for target species ***IF*** funding is available.

Energy & Mineral Development, Rangeland Condition

CDOW has received funding through severance tax dollars to conduct a study on the impacts of oil and gas on WTPD populations. The design phase for this study will begin in the fall of 2009 with study initiation planned for spring 2010. Specifics of the project have not yet been determined and the funding needed to complete the project is unknown.

For rangeland condition, CDOW will work with private landowners and the BLM to identify areas where fire might allow and encourage WTPD colonization and expansion. The cost to do this activity will be minimal and will depend on staff time availability. As management of the WTPD progresses, some of these identified areas will be experimentally treated with fire and monitored as to this treatment impact on WTPD colonization.

Plan Implementation and Follow-up

The CDOW will provide yearly updates to those people and groups that participated in the workshop, as well as other interested parties, on progress in implementing these conservation actions.