

Conservation Study Forum's
Recommendations for
Conserving Prairie Dog Colonies in the City of Flagstaff

8/2/17

Background:

Gunnison's prairie dog (*Cynomys gunnisoni*) is a keystone species in northern Arizona grasslands, which means that colonies of these animals create conditions upon which other species of wildlife and plants depend. In the last 100 years, Gunnison's prairie dogs have declined by over 96% (USFWS 2008), due primarily to widespread poisoning in the early 1900's, habitat conversion and urbanization, target shooting, and disease (WAFWA 2007). This has resulted in declines in other species such as Black-footed ferrets. The Gunnison's prairie dog is considered a Species of Greatest Conservation Need in Arizona's comprehensive wildlife conservation strategy: 2012-2022 (AGFD 2012).

Some parcels slated for development in Flagstaff and across Coconino County are occupied by large prairie dog colonies. In most cases, the ground disturbance and construction associated with development will result in the destruction of the colony. However, if the colony is large enough (50 individuals or more), it can be successfully translocated to a location where it will survive and benefit the greater ecosystem. The Interagency Management Plan for Gunnison's prairie dogs in Arizona specifically identified the need to develop and pursue mitigation measures to protect active colonies threatened by habitat loss, urbanization, and disease, through corrective measures such as the re-establishment of extirpated colonies (Underwood 2007). Translocation of Gunnison's prairie dogs from urban and suburban source colonies can be an effective alternative management technique for removing prairie dogs in conflict with humans and re-establishing animals where colonies have been abandoned in wildland areas (Nelson and Theimer 2012). Currently, Kaibab National Forest, Babbitt Ranches, and Petrified Forest National Park are large land owners and/or public land managers that are seeking translocated prairie dog colonies. Given the prairie dog conservation goals detailed in both Flagstaff's Regional Plan 2030 and Coconino County's 2015 Comprehensive Plan, it is appropriate to establish clear policies that conserve intact colonies without creating a burden on land owners and developers.

Recommendations:

1. These prairie dog conservation standards would only apply to new ground-disturbing development on lots greater than 1/4 acre. Single family homes on any parcel size would be exempt, but subdivisions would not be exempt.
2. On parcels proposed for development, all prairie dog burrow entrances would be mapped along with other natural resources such as trees, floodplains and steep slopes prior to grading or land disturbance. GPS locations of all prairie dog burrow entrances would be shown on this map, as well as parcel boundaries, existing and proposed roads, utilities, and buildings.

3. If a proposed development would impact 100 burrow entrances or more, translocation of the colony during the active post-breeding season (July 1 – September 30) would be required. Research has shown that each prairie dog occupies approximately two burrow entrances, so 100 entrances is equivalent to about 50 prairie dogs (a viable colony for translocation).
4. If the applicant can demonstrate that the colony is completely inactive, then neither conservation nor mitigation will be required. In order to demonstrate that a colony is completely inactive, surveys must be conducted using the following protocol: During May-September, the colonies must be walked through on three consecutive days between the hours of 7-10am or 4-7pm. During the walkthrough, the surveyor looks and listens for prairie dogs as well as look for signs of fresh scat and/or diggings at all burrows.
5. Developments that would impact 100 burrow entrances or more would be required to submit a Prairie Dog Translocation Plan following the *Arizona Game and Fish Department (AGFD) Translocation Protocol for Gunnison's Prairie Dog in Arizona* (Hicks et al. 2016). The Translocation Plan will be reviewed by the AGFD.
6. Once the Translocation Plan is approved by AGFD, the applicant may select a wildlife service contractor licensed with the AGFD to complete the translocation according to the Translocation Protocol and Plan. The AGFD will work with the receiving land owner and wildlife service contractor to secure the location and preparation of the translocation destination.
7. A translocation will be considered complete once the applicant has conducted at least 56 trap hours (number of hours a trap is open) per burrow entrance. If construction will be completed within a year, no other mitigation will be required. If construction is not completed within a year, a prairie dog exclusion barrier (Habitat Harmony, *in prep.*) will be installed to keep any neighboring prairie dogs from re-occupying the site.
8. If a proposed development will impact fewer than 100 burrow entrances mitigation will be required. Mitigation can include:
 - a. Non-lethal options such as avoidance, reverse dispersal, translocation (Habitat Harmony, *in prep.*), OR
 - b. Donating to a City translocation and habitat mitigation fund (proposed amount per prairie dog).

Note: A developer may choose to select a wildlife service contractor (licensed through AGFD with the necessary experience specifically with Gunnison's prairie dogs) to conduct the initial site surveys and write the Translocation plan for them.

Discussion points with the City:

Incentives for translocation and mitigation.

Definitions:

Burrow entrances: The opening to a system of tunnels which is typically occupied by one adult prairie dog. Entrances are typically, but not always, located within or adjacent to a mound. Burrow entrances range between 4 and 8 inches in diameter.

Literature Cited:

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