

Preliminary details of Armory prairie dog relocation methodology for the receiving site

September 12, 2016

Staff have been reviewing potential methodology for use in the Armory prairie dog relocation. Staff are still working with the Armory relocation contractor to finalize methodologies and requirements for the project. However, one issue, the use of artificial nest boxes has been of primary focus for community advocates concerned for the safety of the prairie dogs. Based on challenges associated with the season of relocation and site specific characteristics of the Damyonovich receiving site, **staff has re-evaluated and is planning to use artificial burrows and nest boxes as one of several techniques for preparing the Damyonovich site to receive prairie dogs from the Armory site.**

Background

The City of Boulder puts a large priority on conservation of black-tailed prairie dogs and their associated species. As a result, success of relocations is an important consideration in planning for these projects. However, previous experience on Open Space and Mountain Parks (OSMP) has shown that installation of artificial nest boxes creates areas of intense disturbance. This is problematic, particularly in high quality, intact grasslands. Areas of disturbance can provide areas where invasive weeds can become established and threaten the surrounding grassland communities. However, despite this downside of artificial nest boxes and challenges it creates to meeting grassland plant community conservation goals, it is a commonly used technique in prairie dog relocations that has shown success on many projects.

Analysis

The 2016 relocation of prairie dogs from the Armory colony to the OSMP Damyonovich colony site will occur during October, late in the relocation season. This creates additional challenges to animals getting established on the site prior to winter weather. As a result, staff looked at the potential benefits and costs of including artificial nest boxes in the project. The Damyonovich receiving site sits in the Southern Grassland Preserve, one of the largest patches of intact grassland ecosystems on the OSMP system. Although the grassland preserve contains high quality mixed grass prairie and xeric tallgrass communities, the portion of the Damyonovich colony being used for the relocation is composed mostly of non-native pasture grasses. Wildlife staff including Val Matheson and Heather Swanson worked with plant ecologist, Lynn Riedel to evaluate the potential for successfully implementing limited use of artificial nest boxes while managing risks to adjacent plant communities. Despite the potential for weed threats to adjacent communities and challenges of managing ground disturbing activities in this relocation, staff have determined that using limited numbers of nest boxes should be included in the relocation. Staff have been working with the contractor secured for the Armory site to ensure the addition of nest boxes supports their plans for a successful relocation.

Proposal

The staff plan includes evaluating multiple relocation methods for success in retaining the prairie dogs, determining level of disturbance for each method, and tracking any threats from invasive plant species so that management can be done in a timely manner.

The staff plan includes:

- Installing 4-5 artificial nest boxes to be used for a portion of the Armory prairie dogs.
- Using burrow auguring and other methods designed to use existing underground burrow structures on the site (details still to be determined with the contractor) to accommodate the remaining prairie dogs.
- Hiring contract ecologists to document immediate disturbance of each method and long-term vegetation recovery and any weed invasion or other issues.
- Monitoring prairie dog use of each type of burrow during the relocation and through the first year post relocation.

Benefits

The current plan allows the relocation to benefit from the potential benefits of artificial burrows while balancing the need to maintain and conserve OSMP native grassland communities. Using a variety of methods on the site and monitoring their impacts and success will provide valuable information for staff and the community for use in future relocation planning and working group conversations.

Challenges

Two challenges exist to successfully including artificial nest boxes in the project- the first is the short timeline. This project requires that a contractor can be identified, hired with sufficient time to allow installation of the nest boxes prior to Oct 1. The second challenge is weather. Access to the site by heavy equipment necessary for installation of the boxes will only be possible with dry conditions. Access during wet soil conditions would create substantially more disturbance and require restoration on the site above what was anticipated to implement installation of artificial nest boxes. However, given these potential challenges, staff will work as quickly as possible to implement the installation of nest boxes, dependent on weather.

Implementation

The City will contract and pay to have the artificial nest boxes installed on the receiving site prior to October 1. This installation will be complete prior to the relocation contractor work on the site and they will use the already installed nest boxes in their project. This proposal has been discussed with both the Armory project manager and the relocation contractor and they agree that this is feasible and that they will use the artificial nest boxes as part of the relocation.

Next steps

Staff will work to identify and hire a contractor who can install the nest boxes prior to October 1st. Staff will continue to work with the Armory relocation contractor to approve and finalize methods to be used in the relocation and on the receiving site to ensure the best possible methods and humane treatment of the animals is assured. Once these methods are agreed to, this information will be available to the public and city council.