Wildlife

Boulder County 2019 Annual Report

STAFF

Susan Spaulding
Senior Wildlife Biologist

Dave Hoerath
Wildlife Biologist

Mac Kobza
Wildlife Biologist

Tim Shafer
Wildlife Biologist

Michelle Durant
Wildlife Biologist

Our Mission

County wildlife biologists work toward the preservation and restoration of wildlife species and habitat on open space.
We rise to the challenge of managing public lands increasingly impacted by effects of development, fragmentation, resource extraction, climate change, and recreation.
We strive to utilize the best available research to inform our management recommendations in a consistent, science-based manner.

Strategic Planning

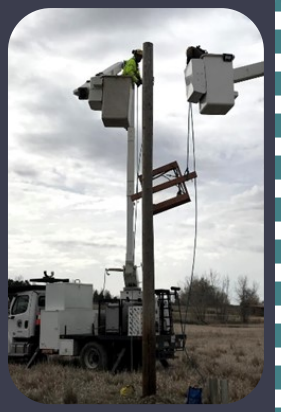
Desired Future Condition Statement:

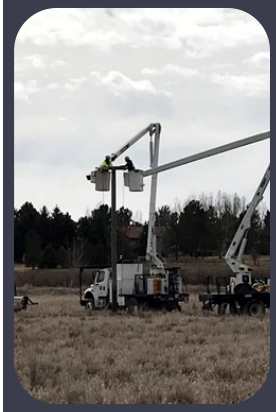
Diverse and representative habitats and landscape connectivity are preserved, conserved, and enhanced to ensure biological diversity and ecological health at a regional scale.
Natural processes including disturbance regimes are embraced to ensure complete ecosystem function.

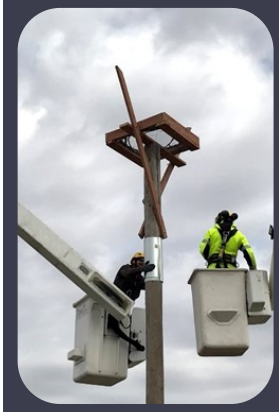
Overarching Goals for Our Program:

1. Preserve wildlife habitat to ensure protection from anthropogenic impacts in order to maintain regional native biodiversity.
2. Conserve wildlife habitat to ensure native biodiversity is maintained in a multiple-use-focused landscape while allowing for sustainable use of natural resources.
3. Restore degraded wildlife habitats to bolster ecosystem function, connectivity, and resilience.
4. Promote and manage for functional wildlife movement corridors to facilitate migration and dispersal at multiple scales.
5. Allow or re-create natural disturbance processes to ensure ecosystem function and resilience.

A New Osprey Nest Platform





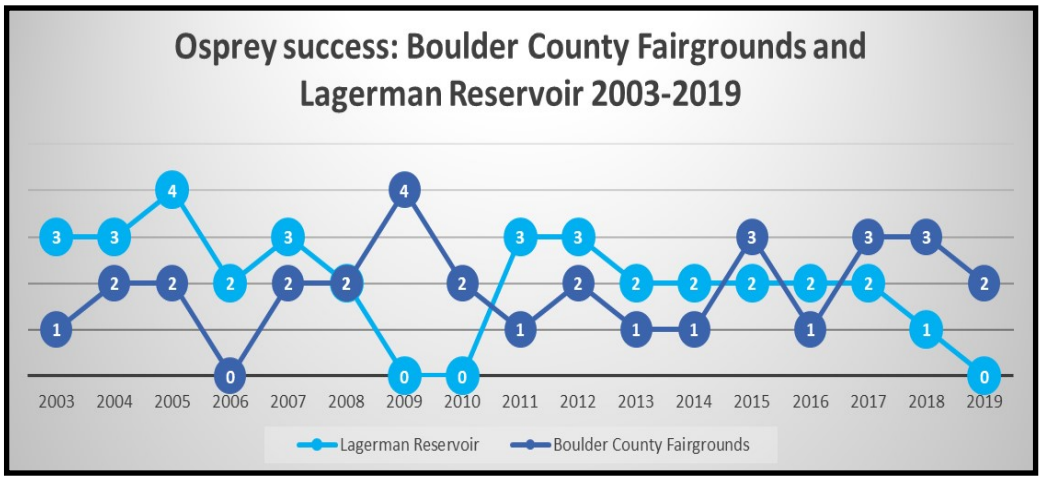


At the corner of Nelson Road and 75th, ospreys began building a nest on a decommissioned emergency siren in 2012, and the City of Longmont, with the support of Colorado Parks and Wildlife (CPW), opted to install a platform for them. The location had one unfortunate caveat: The West Grange subdivision development was planned for 2018, and there would be big changes coming to the ospreys' chosen nest site.

During construction of the subdivision, the city and CPW worked closely with the contractor to avoid disturbance to the nest. As part of the subdivision plan, the nest platform was moved a short distance because homes would eventually be built in its spot, and the siren would be removed. Unfortunately, the remaining space for the platform was another location that would subject the birds to more disturbance. An additional constraint, the possibility of a future trail on open space west of 75th Street, precluded moving the pole west across the road.

The City of Longmont and Boulder County Parks & Open Space (BCPOS) worked together to install a platform to the south on a parcel that would present fewer conflicts for the birds and for people. This new, alternate platform was built and installed last March by Longmont's Power and Communications staff. The new platform is at 75th Street and Clover Basin Drive, and we're hoping the birds will adopt it.

BCPOS has been monitoring and hosting nesting ospreys since 2003, when pairs began nesting at Lagerman Reservoir and the Boulder County Fairgrounds. In 2019, ten osprey nest sites were monitored by a single volunteer raptor monitor, including the new vacant platform. Eight of the nesting pairs had a successful nesting season!



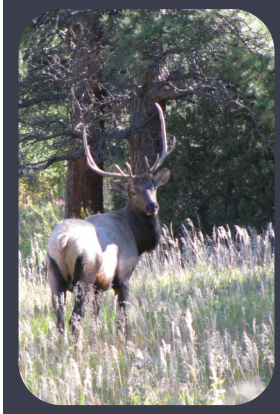
Beavers

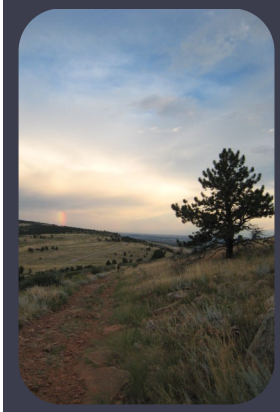
This year was a busy one for BCPOS and beavers! We had been wrestling with water issues at Pella Crossing for over a year as the 21,000 plantings in the Webster Pond wetland restoration project were in jeopardy of being drowned. After many attempts to resolve this problem, we decided to contract a professional beaver relocator. We received a permit from CPW to move the beavers to Caribou Ranch, into an old (vacant) beaver pond complex. We trapped and moved the family of eight beavers over the summer and are hopeful they'll make it their new home. Our follow-up monitoring using remote cameras has confirmed that they've stayed on site and appear to be overwintering.

Prior to the effort to move the beaver family to Caribou Ranch, we worked with our Plant Ecology group to revitalize their new home. We had noticed that in the 10 years without beavers, the beaver complex had begun eroding and draining, to the detriment of the riparian community — especially the willow component. We employed two beaver dam analogues (BDAs) in breaches in the dam system at Caribou. These structures restored the dams so they're able to be filled again, as if the beavers had been maintaining them. It also helped create a favorable environment for the newly-transplanted beavers to overwinter.

A 2017 research study from Colorado State University's (CSU) Dr. Ellen Wohl and student Julianne Scamardo used modelling and field surveys to determine the best locations to reintroduce beaver in Boulder County watersheds. The study found that BCPOS streams with the highest potential for successful beaver reintroduction are Delonde (at Caribou Ranch) and Sherwood creeks. The addition of two or more beaver dams in these locations could increase the potential carbon storage in the valley bottoms by up to 562%.

Beaver reintroductions and BDAs are viable at multiple sites on BCPOS lands and will have significant positive effects on the ecological health, biodiversity, and carbon-storage capacity of valley bottoms and wetlands. Additionally, Dr. Katherine Lininger has installed five staff gauges with associated time-lapse cameras at Caribou in order to monitor the habitat response to the introduced beavers. This work is ongoing, and the results will be reported when data become available.





Rabbit Mountain Elk

2019 marked the third year of implementation of the Rabbit Mountain Elk and Vegetation Management Plan. We improved or altered some aspects of the program as we've learned more about successful processes, including:

- Streamlining the application and permitting process to better coincide with the CPW licensing process.
- Improvement to our hunter orientations using insights gleaned from the past two years.
- Expanding the huntable area due to a new acquisition, which improved access.
- Continuing our strong communication process with hunters and neighbors.

Accomplishments towards the plan's listed goals include:

- The absolute number of elk using the Rabbit Mountain area has decreased significantly from its high around 360 to approximately 120.
- The "time on the mountain" metric has also been reduced. We see this physically (less trailing, shrub, and vegetation vigor) and geographically, as our collared cow elk have shown a marked change in distribution and migration to points farther north and west.

Overall, the plan has been successful, but we have not yet met our population-size objective. The initial approved three-year plan was foundationally a trial period of management to validate procedures and monitor impacts. We will continue collaring cow elk to determine movement, migration, and use patterns. We will likely propose some modifications to the current plan to maintain some level of management for another short time period (3–5 years). For more information please visit: www.bouldercounty.org/open-space/management/rabbit-mountain-elk-management-plan/

Aquatic Ecosystem Highlights

- Across 11 sites we found 20 species of fish totaling 4,455 captures in St. Vrain Creek.
- Fish counts were 50% less than 2018, and non-native mosquitofish were more common.
- A state-threatened northern redbelly dace recovery partnership was started.
- Lyons Middle/Senior High School, St. Vrain Valley School District's (SVVSD) Innovation Center, and Ocean First Institute have installed rearing tanks, with adult fish arriving in 2020.
- Two native fish passage restoration projects nearing 100% design; expected start in fall 2020.
- Front Range Frog Working Group coordinating on Northern leopard frog projects.
- Bullfrogs removed by electrofrogging from Big Bird Stock Pond and Peschel Pond.