

PLANT ECOLOGY 2024 ANNUAL REPORT



PLANT ECOLOGY WORKGROUP

Full-Time Staff:

- David Hirt - Program Supervisor
- Carrie Cimo - Resource Specialist/Volunteer Coordinator
- Stephen Hauptli - Resource Specialist
- Brad Winckelmann - Resource Specialist
- Kelsey Backiewicz - Resource Specialist

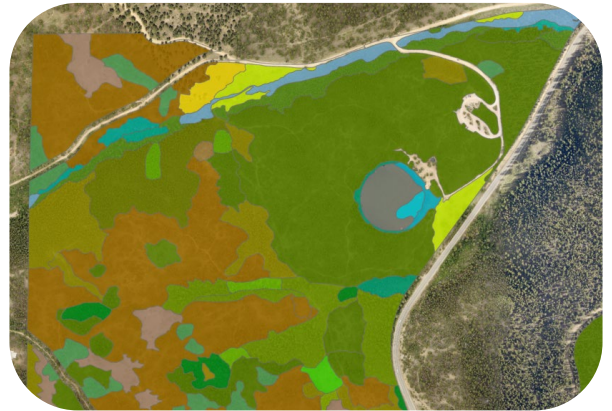
Seasonal Technicians:

- Mike Alber
- Anna Mango
- Morgan Newton



MONITORING AND MAPPING

- ❑ Mapped 573 acres of vegetation across five properties: Prescott 1 and 2, Becker, Elk Draw, and Mud Lake.
- ❑ Monitored 18 plots for Bell's twinpod, an endemic plant known only from Boulder and Larimer counties.
- ❑ Monitored 20 vegetation transects, checking a variety of management actions, including: post-Cal-Wood Fire recovery, wetland and riparian health, and grassland restoration.
- ❑ Planted 91 wood lilies, a vulnerable and declining species, on three mountain properties.
- ❑ Updated Rare Plant Geographic Information System (GIS) data collection protocol and mapping methodology to better track rare plant populations over time.



Vegetation mapping completed at Mud Lake shows distinct vegetation communities throughout the property.



Mike Alber collects data on Zapf property.

RESTORATION



- ❑ Seeded 161 acres across 10 properties, including returning 80 acres at the Carolyn Holmberg Preserve at Rock Creek Farm to native grassland.
- ❑ Planted 1,830 native forbs, shrubs, and trees across eight properties from the plains to the mountains.
- ❑ Restored a high-quality, montane wetland that had been drained in the 1980's.
- ❑ Planted 590 native shrubs to increase diversity of wetland as part of the future Prairie Run Open Space.
- ❑ Started restoration on a 2,100-foot reach of South St. Vrain Creek, west of Lyons, in collaboration with The Watershed Center.
- ❑ Worked with City of Boulder to restore impacts from the new wastewater utility line at Walden Ponds.
- ❑ Removed 128 invasive trees from Hall 2 and Alexander Dawson.

BOULDER COUNTY YOUTH CORPS

- ❑ Corpsmembers planted 4 acres with 600 transplanted prickly pear cactus cuttings at the Deberry property.
- ❑ The team removed trees at Prescott that had encroached into the disturbed wetland that would have been an impediment to construction and post restoration functioning.
- ❑ At Heil Valley Ranch, corpsmembers removed tree cages from Ponderosa pines planted after the Cal-Wood Fire.
- ❑ In an effort to increase shrub cover on established stream projects along South St. Vrain Creek, the team installed dead trees surrounded by sand and rock, as an experiment for birds to drop digested berries that may later germinate in place.



VOLUNTEERS AND NATIVE SEED PROGRAM

- ❑ Led 27 volunteer events in seed collection, seed processing, plantings, restoration maintenance.
- ❑ Generated 1,335 community service hours.
- ❑ Peck Native Seed Garden steward volunteers contributed 480 service hours.
- ❑ Collected 237 lbs. of 35 unique native species.
- ❑ Planted 1,600 native plants at Peck Native Seed Garden and Kenosha Wetlands.
- ❑ Grew 12 species at Peck Native Seed Garden.
- ❑ Used approximately 635 pounds of collected seed and increased native seed in seed mixes for restoration.



RESEARCH, DESIGN, AND COLLABORATION

- ❑ Worked with design team to develop stream restoration plans for 2,100 feet of the South St. Vrain Creek at the Lyons Quarry where the stream was historically straightened.
- ❑ Partnered on research with Denver Botanic Gardens on stratification and germination of native forbs and grasses from differing elevations and implications for a warming climate.
- ❑ Continued partnership with Colorado Department of Reclamation, Mining, and Safety to restore Sherwood Creek west of Mud Lake.
- ❑ Worked with interdisciplinary team and the Cheyenne and Arapahoe of Oklahoma to return buffalo back to Boulder County.

