

CITY OF BOULDER
OPEN SPACE AND MOUNTAIN PARKS
ANNUAL REPORT 2009

Table of Contents

<i>Letter from the Director</i>	1
<i>Resource Systems</i>	
<i>Ecological Systems</i>	
Research Program	4
Forest Ecosystem Management Plan	6
Integrated Pest Management	8
Spotlight on Restoring the Prairie	9
<i>Community Outreach</i>	
Education Services	10
Outreach Services	12
Volunteer Services	14
<i>Ranger Naturalist Services</i>	
Ranger Program Overview	16
Spotlight on Kelly Idema	17
<i>Environmental Planning</i>	
Grassland Ecosystem Management Plan	18
West Trail Study Area	20
Spotlight on Surveys	21
Trail Study Area Monitoring	22
<i>Resource Informational Systems</i>	
Resource Information Systems Overview	24
Spotlight on Habitat Suitability Model	24
<i>Land and Visitor Services</i>	
Trail Study Area Implementation	28
Trails Program	30
Junior Ranger Program	32
Trailhead and Maintenance Services	34
Agriculture Program	36
Water Resources	38
<i>Cultural Resources Program</i>	
Cultural Resources Program Report	42
<i>Acquisitions</i>	
Real Estate Acquisitions	46
Spotlight on Linda Vandervort	46
Conservation Easements	47
<i>Central And Administrative Services</i>	
Financial Services	50
Spotlight on Permits	51
Spotlight on Voice and Sight Dog Tag Program	52

Letter from the Director of Open Space and Mountain Parks

Welcome to the City of Boulder Open Space and Mountain Parks annual report. The annual report highlights just a few of the many Open Space and Mountain Parks accomplishments for 2009. The report also provides a glimpse of what to expect in 2010. This report continues the department's commitment to share information on the work and the progress made in managing the diverse lands and resources of Open Space and Mountain Parks.

In Boulder we are fortunate to have this high quality natural land system right here in our community. At Open Space and Mountain Parks, we feel privileged to have a talented and hard working staff dedicated to help meet the community service and land management goals that maintain this system for perpetuity. As you will see, this year like many others, has been productive and busy for the department. We continue to focus our efforts on ensuring a positive and enjoyable experience for visitors while providing the highest level of natural resource protection.

An example of some of the many accomplishments include the Resource and Planning staff completing the Grassland Plan which was approved by the Open Space Board of Trustees in August and the Integrated Pest Management (IPM) group surveyed over 550 acres of conifer forest west of the Flatirons for invasive species to help support the work of the West Trail Study Area planning process. The South Boulder Creek Volunteer Restoration Project focused efforts on severely eroded banks, replacement of invasive tree and shrub species by native species, and restoring undesignated trails to native shrub and grassland communities. Speaking of volunteers, in 2009 over a 1,000 volunteers contributed over 27,360 hours to help staff greet visitors, teach education programs, monitor wildlife and eradicate weeds. It would be difficult to meet our yearly goals without their help.

You can read more about these accomplishments and many others in this 2009 edition of the Open Space and Mountain Parks annual report. We hope you enjoy this issue of our annual report and I personally want to thank you for your continued support of this important community treasure.

Mike Patton



ECOLOGICAL SYSTEMS •



RESOURCE SYSTEMS

COMMUNITY OUTREACH • RANGER NATURALIST SERVICES • ENVIRONMENTAL PLANNING • RESOURCE INFORMATION SYSTEMS

RESOURCE SYSTEMS

Ecological Systems: Research Program

Research Program

Open Space and Mountain Parks (OSMP) administers a research program to sponsor studies that increase the understanding of the condition and functioning of the biological, ecological, agricultural, geologic, paleontologic, and hydrologic resources on OSMP land. Research conducted on OSMP has also included social science projects which pertain to land use and public opinion. OSMP offers an excellent outdoor laboratory for studying wildlife and plant communities at the Great Plains and Southern Rocky Mountain ecotone, particularly for research questions involving the effects of urban and exurban proximity to ecological systems. OSMP benefits from this collaboration with local and regional researchers by gaining knowledge that can be used to improve conservation strategies and land management techniques on OSMP and by contributing to studies that help other land managers and programs.

Reports and literature generated from research conducted on OSMP are posted on the department's website: http://www.bouldercolorado.gov/index.php?option=com_content&view=article&id=2989&Itemid=1124

Examples of 2009 Research Projects conducted on OSMP:

Wildlife

- Censusing and radio-tracking bats
- Survey for Preble's meadow jumping mouse in association with RTD's Northwest Rail project
- Front Range cougar study in association with Colorado Division of Wildlife
- Butterfly survey on OSMP grasslands
- The effectiveness of rock-ramps on the movement of native and non-native fishes in South Boulder Creek
- Describing patterns and mechanisms of exotic plant invasions on prairie dog (*Cynomys ludovicianus*) colonies to develop a predictive model for managers
- Long-term effects of plague on prairie dog populations
- Linking land-use, biodiversity, and amphibian disease
- Determining the effects of habitat fragmentation and climate change on local grasshopper species richness and distribution
- Coal Creek riparian area bird monitoring in association with Boulder County Nature Association
- Evaluating the use of copper and copper-based compounds to prevent the upstream movement of New Zealand mudsnails



Vegetation

- Impacts of Mountain Pine Beetle Infestation on Forested Ecosystems and Social Values in the Front Range, Colorado
- Potential Invasion of Non-native Species across the Forest/Grassland Ecotone Following Low Severity Fire
- Surveys for the Biological Control Herbivore *Calophasia Lunula* on Dalmatian Toadflax
- Size-specific Growth and Flowering in *Opuntia macrorhiza* [prickly pear cactus]
- Developing Sustainable Management Procedures for Widespread Noxious Weeds on Public Lands in the Colorado Front Range
- Spatial Heterogeneity of Nitrogen in Plant Invasion



Ecological Systems: Forest Ecosystem Management Plan

Forest Ecosystem Management Plan

The 2009 field season was the sixth consecutive year OSMP committed full time resources to the implementation of the city's Forest Ecosystem Management Plan. The Forest Ecosystem Management Plan or FEMP has the overarching goals of improving forest health in Boulder's forests and decreasing the risk of wildfire to the surrounding community. During the 2009 season, OSMP focused its efforts on the ponderosa pine forests above Chautauqua on the Enchanted Mesa. This project decreased the overall tree density which decreases the risk of wildfire, improves habitat for wildlife and vegetation, and could decrease the impacts of a future mountain pine beetle outbreak.

The 2009 season also included a continued and very effective collaboration between OSMP and the Boulder Fire Department on thinning and prescribed burn projects. The Fire Department provided over 1,400 person-hours to help OSMP meet the forest management goals. Staff hours related to FEMP implementation also included the implementation of extensive forest monitoring projects, ongoing integrated pest management work in the forests, and collaboration and coordination with other county and Front Range organizations.

2009 Accomplishments:

- Thinned a total of 122 acres of low elevation ponderosa pine forest on OSMP properties.
- Completed a 40-acre forest prescribed burn on Shanahan Ridge.
- Spent over 5,500 person-hours on forest management projects.
- Sampled over 130 vegetation cover plots in forest treatment areas to measure the effectiveness of management work.
- According to OSMP forest monitoring, on average, thinned forest stands have twice the number of birds, 40 percent more plant species, and 20 percent more vegetation cover than un-thinned forest stands.





Ecological Systems: Integrated Pest Management

Integrated Pest Management (IPM) plays an integral role in restoration, conservation and sound resource management. Many OSMP projects such as trail construction or other field operations create some level of disturbance. OSMP accompanies these efforts with resources and effort to restore the site to its natural state. With disturbances come invasive species. An integrated approach to invasive species management and best management practices helps curb the resources needed to assist sites to return to more natural states and reduces the ability of invasive species to infest the landscape in the future.

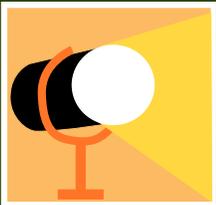
2009 Accomplishments:

- Mechanical control methods, including mowing, hand pulling and tree wrenching, were employed on approximately 3,800 acres to address invasive species across the system. Volunteers, AmeriCorps crews, Junior Rangers and IPM staff spent 2,000 hours on the landscape utilizing these approaches.
- Beneficial weevils were released to assist with the management of Dalmatian toadflax on four OSMP properties. Long-term monitoring plots were established at the Jewel Mountain property to track target and non-target effects.
- Wildlands Restoration Volunteers (WRV) and volunteers from the Google Serve program helped remove the State of Colorado listed noxious weed, Mediterranean sage, from 400 acres.
- Staff carried out New Zealand mudsnail surveys and Eurasian watermilfoil removal in Boulder Creek. IPM staff also coordinated with other City of Boulder departments to implement strategies to prevent zebra and quagga mussels from entering Boulder Reservoir.
- In October, a restoration project on South Boulder Creek focused on stabilizing severely eroded banks, replacing invasive trees and shrubs with native species, and restoring undesigned trails.
- Trail and trailhead projects provided plant salvage opportunities. A segment of the Prairie Vista Loop was rerouted and staff was able to salvage plants from this project and plant them at the Flatirons Vista Trailhead.
- Monitoring plots were established to measure the success of weed whipping as a control measure for Tall oatgrass (*Arrhenatherum elatius*) within the ponderosa pine forest community.
- Garlic mustard was managed by handpulling from a drainage west of Chautauqua Meadow with assistance from AmeriCorps.
- Approximately 550 acres of conifer forest west of the Flatirons were surveyed for invasive species to expand knowledge regarding invasive species presence for the West Trail Study Area planning process.



What to look for in 2010:

- The city's IPM Policy and Weed Ordinance will be revised in 2010.
- Continued work on South Boulder Creek will entail removal of invasive plants and replacement with native species, maintenance of past work, and ongoing restoration of eroded stream banks and undesignated trails.
- This will be another good year for working with volunteers on Mediterranean sage and myrtle spurge. OSMP and WRV have also scheduled a restoration project along South Boulder Creek to remove invasive tree and shrub species and replace them with native species.



Spotlight on Restoring the Prairie Landscape

Over the past three years, staff conducted extensive effort to restore the character of large prairie blocks to open native grass and forb plant communities. These areas had become dominated mainly by two invasive species, Russian olive and common teasel. Both invasives alter the structure and capacity of the system to provide food and shelter for species that would typically be found in these habitats. Teasel and Russian olive were removed from over 450 acres of high priority grasslands and riparian areas in the vicinity of Cherryvale Rd. and US 36 over the past three years, with over 200 of those acres being treated in 2009. Removal methods include: use of herbicides, hand pulling, timed grazing, prescribed fire, and mowing. Following invasive removal efforts (photos below), these areas again reflect the tallgrass, wetland, and mixed-grass prairie communities expected. These types of control efforts in native systems typically have fast recovery times, with native species rapidly filling the space once occupied by the invasive species.



Before



After

Community Outreach: Education Services

In 2009, the OSMP education team offered 278 programs to the community, reaching over 12,000 people. These programs took the form of both free public educational hikes known as Natural Selections and programs requested of the department by various community groups and schools. Of the 278 programs offered in 2009, 200 were requested by the community. The other 78 were offered free of charge to the community as Natural Selections hikes. These programs covered a range of topics including general wildlife, ecology, geology, astronomy, history, various arts, accessible trail use, bird watching, OSMP 101, Habitat Conservation Areas, pine beetles, forest ecology, wetlands, grasslands, full-moon hikes, and bike rides. Additionally, these programs take visitors all over the OSMP system.

Education and outreach staff and rangers are the primary personnel leading education programs for the public. In addition to staff, the education team trains and maintains a Volunteer Naturalist program which greatly enables OSMP to reach more of the community with educational programming. In 2009, approximately 40 active Volunteer Naturalists were involved in 98 programs. Many programs require multiple naturalists, so supplementing staff with volunteers is the only way OSMP can meet the educational needs of the community. In 2009, OSMP was able to accommodate the majority of educational hike requests from the public.

2009 Accomplishments:

- Offered 278 programs to the community.
- Provided educational programming to more than 12,000 people.

What to look for in 2010:

- New and interesting Natural Selection hikes and programs for kids, families or anyone wanting to explore OSMP.
- Special “Trail Safety Days” during the summer at either Flatirons Vista or Doudy Draw Trail providing information on trail sharing courtesies and safety.

Links:

- www.bouldercolorado.gov/requestahike
- www.naturehikes.org





Photo by Doug Grinberg

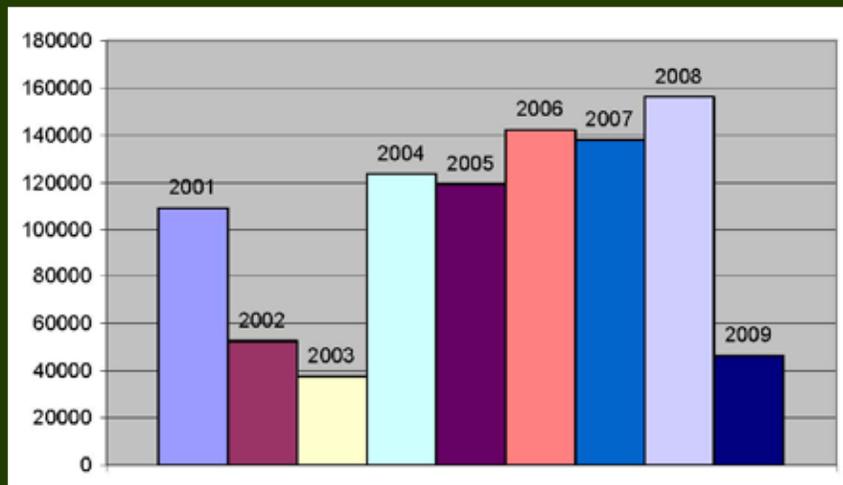
Community Outreach: Outreach Services

Outreach staff members are often the “faces of OSMP” as they are present at trailhead tables, the Ranger Cottage, community events such as the Farmer’s Market, Fourth of July at Folsom Field celebration and other events. Outreach efforts are critical to OSMP and result in thousands of face-to-face conversations about the values of our open spaces. The vitality of OSMP is directly tied to making connections with the community. Outreach improves and enhances the community’s OSMP experience, fosters community appreciation, and encourages visitors to safely enjoy their experiences while taking actions compatible with conserving resources while enjoying a variety of activities.

Budget reductions in 2009 reduced the number of seasonal outreach staff and resulted in fewer contacts than previous years. The Ranger Cottage at Chautauqua was open at a greatly reduced schedule and the number and types of events the department could attend to provide the community with information about OSMP was also diminished.

2009 Accomplishments:

- Outreach staff made 21,720 face to face contacts at the Chautauqua Ranger Cottage.
- Staff coordinated 2,400 contacts at the Flagstaff Summit Nature Center and 1,000 contacts at the NCAR Science Festival.
- OSMP staff, volunteers and seasonal employees treated over 20,000 attendees at the Fourth of July event at Folsom Field to musical outreach and education.



This graph charts OSMP outreach contact numbers since 2001.

What to look for in 2010:

- The OSMP outreach staff will be at a number of events in 2010. Highlights include over ten wildly popular Meadow Music programs and OSMP again provided entertainment/education at the Fourth of July event at the Folsom Field.
- OSMP is back at the Farmer's Market, on Wednesdays (4:00 p.m. - 8:00 p.m. in the summer) and Saturdays (8:00 a.m. to 2:00 p.m. in the spring/summer/fall)
- Beginning in May and going through the end of September, the Ranger Cottage will be open from 9 a.m. - 4 p.m. weekdays and 8 a.m. - 6 p.m. on weekends. October through the end of December the Ranger Cottage will be open 9 a.m. - 4 p.m. every day.



Community Outreach: Volunteer Services

Volunteer Services

Volunteers help OSMP reach its mission in a variety of ways. They greet visitors at public events and on trails, provide educational programs, monitor wildlife, restore natural habitats, pull noxious weeds, build trails, monitor rare plants, and assist staff in many other ways. In 2009 more than 1,000 volunteers contributed over 27,360 hours to Open Space and Mountain Parks. Stewardship projects provided approximately 15,000 hours including AmeriCorps crew work, short-term group projects by organizations and businesses, and community service. Volunteer Services provided over 1,000 hours of training to OSMP volunteers in 2009.

These dedicated volunteers assisted in many ways including:

- restoring natural habitats,
- maintaining and building trails,
- teaching interpretive programs,
- monitoring frogs, bats and birds,
- monitoring rare plants,
- eradicating weeds,
- greeting visitors at public events and on trails, and
- serving as inspiration to the greater community.



Volunteer Program Summary

- Trail Guides provide visitor information on area features, natural and cultural history, seasonal changes, policies, regulations and more. 3,200 Hours
- Hosts greet the public and provide information and education, reaching thousands of visitors at Flagstaff Summit Nature Center, Chautauqua Ranger Cottage, and at community events. 500 Hours
- Volunteer Naturalists provide interpretive nature programs for all ages, both on trails and in classrooms. 1,800 Hours
- BearCare Team members educate Boulder citizens about how to live safely with bears. 70 Hours
- Native Garden Team helps to plant and maintain the Ann Armstrong Memorial Native Garden at the Chautauqua Ranger Cottage. 400 Hours
- Nesting Raptor Monitors enjoy the unique and rare opportunity to observe courtship, nest development and fledging of Front Range birds of prey. 2,300 Hours
- Hayfield Monitors play a vital role in protecting rare birds that nest in OSMP grasslands. 50 Hours
- Bat Monitors adventure out at dusk to ponds and known bat roosts. They perform auditory and visual population counts. 700 Hours
- Herbarium and Rare Plant Monitors support conservation of native eco-systems by observing, inventorying, collecting and adding plant specimens found on OSMP lands. 400 Hours
- Bike Patrollers assist, educate and inform bikers and other trail users, helping to increase visitor compliance and promote positive sustainable experiences on the land. 600 Hours
- Staff Assistants and Interns provide support with individual research and field work in numerous areas. 500 Hours
- Open Space Board of Trustees, appointed by City Council, researches issues, advises on policy, recommends purchases, and guides OSMP staff. 900 Hours
- Stewardship Projects provided 15,000 hours in 2009, including AmeriCorps crew work, short-term group projects by organizations and businesses, and mandated community service. 15,940 Hours

What to look for in 2010:

- Recruiting and training our 2010 volunteers.
- AmeriCorps will again be assisting OSMP with a variety of projects.
- The schedule for stewardship projects is taking shape including two with the Sierra Club and the annual PUP (pick up poop) Derby. Let OSMP know if you have an interest in volunteering.



Ranger/Naturalist Services

Ranger / Naturalist Services

Rangers play a key role in building and maintaining connections for visitors to OSMP lands. They are the “eyes and ears” of the department and the “jacks of all trades.” They provide individual personalized contact with visitors in the system by answering questions and providing guidance about natural resources and visitor services. The visibility of the ranger in uniform on patrol creates an identifiable representative of OSMP for visitor interaction. Rangers also provide formal and informal interpretative programs, presenting and interpreting natural history, adding to visitor enjoyment and visitor safety. Ranger patrol on trails and presence in the system provide OSMP the ability for rapid response to incidents and emergencies. Rangers are certified in law enforcement, EMS, and wildland firefighting skills and continuously update training and practice of these skills to assist when needed. Rangers are also trained to respond to wildlife incidents throughout the City; especially those involving mountain lion and bear.

2009 started out dramatically with the “Olde Stage Fire” on January 7. Fueled by high winds, the fire shoved flames across grasslands including parts of OSMP, and led to reverse 911 calls to more than 11,500 homes. OSMP rangers and other staff provided essential first response as well as follow-up to insure visitor and resource protection measures were in place in the weeks following. In all, the fire burned 1,400 acres and an estimated 1,300 to 1,400 people were forced to leave their homes. Only two structures, one being occupied, were destroyed.

2009 Accomplishments:

- Completed study of Chronic Wasting Disease in Boulder deer herd in collaboration with Colorado Division of Wildlife (CDOW).
- Continued radio telemetry study on Mountain Lions (also with CDOW).
- Participation by two rangers as members of the West TSA – Community Collaborative Group.
- Active in numerous volunteer, educational outreach, and biological monitoring projects.





Spotlight on Kelly Idema

I was born on the Oregon coast and grew up in Corvallis, OR. After high school, I attended Northern Arizona University in Flagstaff and graduated in 2003.

In 2004, I took a job with the City of Boulder on the first OSMP FEMP crew, and was the only woman on the forestry crew for three seasons. In 2006, I was offered a job as a seasonal ranger which turned into a full-time position in December of 2007. I graduated from the police academy in early 2008 with my fellow Ranger, Erin O'Leary. I am very happy being a full-time Ranger for the city.

When asked what I like best about my job, I had a hard time narrowing it down. Being a Ranger provides opportunities as diverse as the open spaces we patrol and the people we encounter. This is one of my favorite aspects of my job. It always amazes me that I can patrol by horse in the morning, spend the afternoon responding to a rescue in the Flatirons and, before going home, respond with my colleagues to a wildland fire. Everyday is different and Rangers must be ready for it all. What makes my job truly unique is the amazing people I get to work with everyday. The Ranger group and the staff at OSMP are an incredible resource and great to work alongside. More experienced Rangers have helped me immensely and I hope to continue in that tradition as I progress in my career.

During my days off, I enjoy relaxing with a good book in my back yard and gardening, weather permitting. Even on my days off, I use OSMP trails as I love trail running, biking and cross-country skiing. While not the best artist, I also spend free time painting and taking photographs of nature.



Environmental Planning: Grassland Ecosystems Management Plan



Grassland Ecosystem Management Plan

The Grassland Ecosystem Management Plan proposes specific on-the-ground management actions, public policies and lands & water acquisition priorities to conserve the ecological values of OSMP's grasslands and ensure on-going agricultural production. The plan will not only provide direction for OSMP's management of grasslands, but will include management guidance for the stewardship of wetlands, riparian areas, shrublands and other habitat types nested within OSMP's prairies. The Grassland Planning Area contains approximately 24,000 acres of OSMP lands held in fee, and another several thousand acres protected through conservation easements held by the City of Boulder.

2009 Accomplishments:

- Summary of public comments.
- OSBT Study Session.
- Final draft Grassland Plan.
- Open Space Board of Trustees Approval.
- System-wide Grassland Vegetation Monitoring Program Established.
- System-wide Grassland Vegetation Monitoring Year One Data Collection.

What to look for in 2010:

- Staff and City Council Study Session to discuss the Grassland Plan.
- City Council acceptance.
- Wildlife and vegetation Monitoring.
- Implementation of other highly ranked strategies.

More information about the Grassland Plan is available at www.grasslandplan.net





Photo by Dan Fogelberg

Environmental Planning: West Trail Study Area Plan

West Trail Study Area Plan

The overall purpose of the West Trail Study Area (TSA) Plan is to provide the management direction and implementation strategies that will protect natural and cultural resources, and improve the visitor experience in the West TSA. The West TSA consists of the spectacular mountain backdrop to the City of Boulder (11,250 acres) and includes OSMP lands west of Broadway and SH 93 from Linden Avenue to Eldorado Springs Drive.

The juxtaposition of high natural and cultural resource values and high visitor use creates many challenges to sustaining the health of ecosystems and providing high-quality visitor opportunities that are compatible with resource protection.

The West TSA planning process started in mid-2008 and is slated for completion in 2010.

2009 Accomplishments:

- Completed the West Trail Study Area Targets, Attributes, and Indicators Report.
- Completed the West Trail Study Area Inventory Reports. The Inventory Reports are a compilation and analysis of information about existing conditions for the natural, cultural, and recreational resources in the West TSA.
- Creation and start-up of the Community Collaborative Group . OSMP instituted a collaborative planning process that includes much more extensive community engagement. With the support of the Open Space Board of Trustees (OSBT), OSMP established a citizen advisory group, the Community Collaborative Group (CCG), to develop plan recommendations that staff and the OSBT will consider for inclusion in the final plan.

What to look for in 2010:

Work to be accomplished with the CCG:

- Look for the completion of the recommendations, which describe what OSMP is trying to achieve in delivering a quality visitor experience, sustainable access opportunities, and protection of natural and cultural resources to be delivered to the OSBT by the end of 2010.
- Consensus-based recommendations including strategies and specific on-the-ground management actions designed to maintain and achieve desired future conditions.
- Integrating the CCG recommendations and staff recommendations into a draft West TSA Plan.

www.westtsa.org



Spotlight on Surveys

OSMP is interested in knowing how well the department is delivering open space services to the community. In 2010, staff will prepare and initiate surveys to measure both visitor and community experiences with service delivery as well as tracking specific attributes of the visitor experience and community satisfaction.

The Visitor Survey documents attitudes and characteristics of OSMP visitors. This information will be used to inform and improve OSMP management. The survey is filled out by visitors as they leave OSMP. The year-long field survey is scheduled to begin in June 2010 and will run through the spring of 2011.

The Resident Survey documents City of Boulder residents' attitudes about program direction and management approaches. As with the visitor survey, information gathered will be used to track and make changes to the way OSMP delivers community services. During the spring of 2011, a randomly selected group of Boulder residents will be contacted by phone and asked to complete this survey.

Once the surveys have been completed, the results will be available on the OSMP website.



Environmental Planning: Trail Study Area Monitoring

Trail Study Area Monitoring

Over the past couple of years, OSMP implemented several projects to improve the visitor experience (e.g. construction of new trails) and/or restore natural resources (e.g. closing undesignated trails) in the Marshall Mesa/Southern Grasslands and Eldorado Mountain/Doudy Draw Trail Study Areas (EM/DD TSAs). OSMP is monitoring the impact and/or effectiveness of these projects and their associated regulations in achieving the overall goals of the Visitor Master Plan (VMP) of enhancing the visitor experience and protecting natural resources. Documents and presentations describing the monitoring objectives, methods, and other details for the EM/DD TSA can be found on the OSMP website (EM/DD TSA Monitoring details).

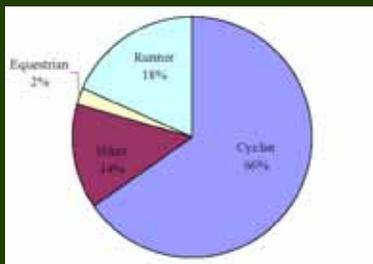
2009 Accomplishments:

Eldorado Mountain/Doudy Draw (EM/DD TSA)

- Surveys of the physical conditions and undesignated trails along the Goshawk Ridge.
- Trail and undesignated trails near Spring Brook Loop.
- Visitation estimate for the Eldorado Mountain HCA and Spring Brook Loop Trail.
- On-trail and dog regulation compliance observational study (summary results available on the OSMP website).
- Recreational conflict survey (766 surveys administered).
- Restoration monitoring of 11 undesignated trails.
- Wildlife monitoring including pellet plots (deer, elk, turkey), songbird point counts, raptor call-back surveys, turkey and grouse transects, and deer bed mapping.

What to look for in 2010:

- Repeat observational study of compliance with on-trail and area-specific dog regulations.
- Spring Brook Loop recreational conflict survey results.
- Continuation of specific wildlife and undesignated trail closure and restoration monitoring projects.
- Completion of undesignated trail, visitation estimates and trail condition monitoring for Spring Brook Loop and/or Goshawk Ridge Trails started in 2007 and 2008.



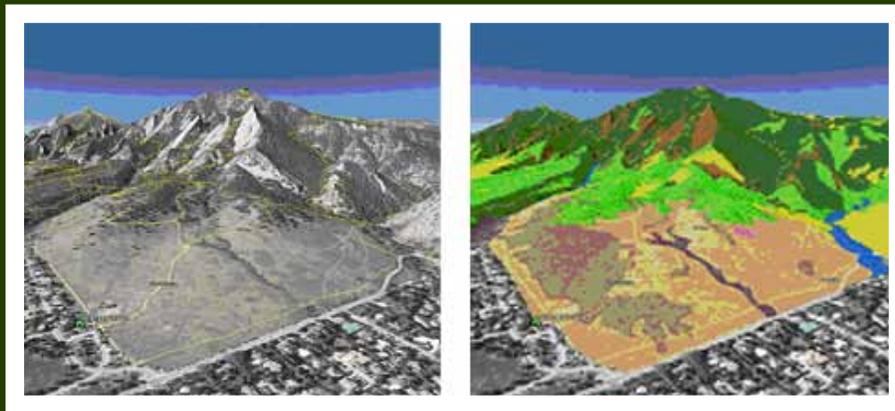


Resource Information Systems

Resource Information Systems

This year the Resource Information System (RIS) lab started to utilize Google Earth to display OSMP's spatial data in a way that is more easily accessible to the public. Along with other GIS data made public from other departments, the latest OSMP Google Earth KMZ (a zipped-up package of layers) is freely available from the city's eMaps Resources website at the bottom of the page.

Two example snapshots are shown indicating how Google Earth can be used to visualize OSMP land and resources beyond a regular two dimensional map. The first map is OSMP designated trails draped onto Google Earth's imagery and viewed "obliquely." The second image shows OSMP's Natural Resource Conservation Targets (based on the vegetation mapping) draped on top of Google's imagery. This information is being used in the West TSA planning process. The Google Earth KMZ has many more layers to choose from and can help in anything from planning a trail hike, to viewing dog regulations and raptor closure areas, or seeing where highly suitable black bear habitat is located. Have fun exploring OSMP from the convenience of your home!

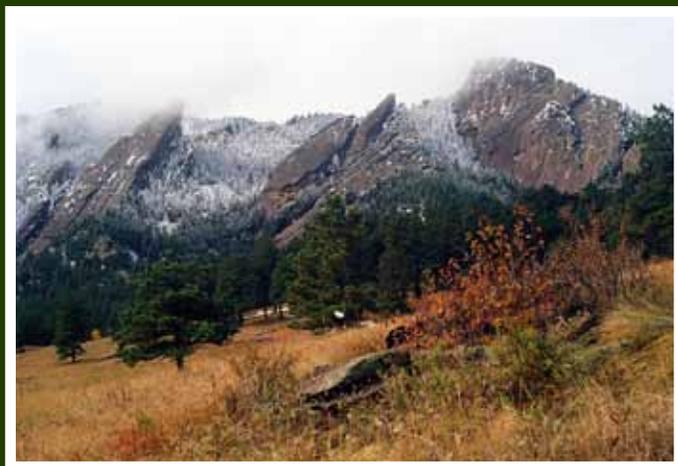
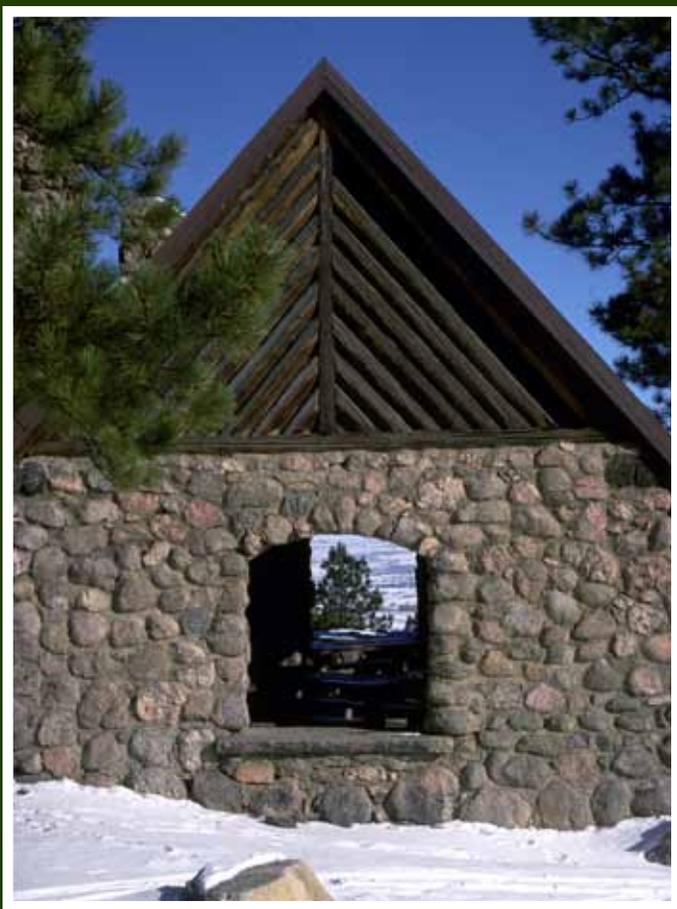


Spotlight on Habitat Suitability Models

West Trail Study Area (WTSA) Habitat Suitability Models

The WTSA Natural Resource Inventory Report presented a chance for the RIS lab to find a new way to map the best opportunities for natural resource conservation on the ground. Seven "indicator" species were selected by OSMP's Wildlife and Plant Ecologists to act as umbrella species over the myriad of other species found within their same ecosystem. The RIS lab used the best available GIS data and expert opinion to create individual Habitat Suitability Models for each of the seven species. The output indicates where the best habitat for each indicator species can be found in the WTSA. Mapping the best available habitat for these species will help with decisions regarding tradeoffs between natural resources and recreation throughout the WTSA planning process and beyond. The entire report can be found on the WTSA website, www.westtsa.org, under Library, West TSA Reports. The black-hatched areas are considered highly suitable habitat and the best habitat for the indicator species in the West TSA.







TRAIL AREA STUDY IMPLEMENTATION • TRAILS PROGRAM •

LAND AND VISITOR SERVICES



TRAILHEAD AND MAINTENANCE SERVICES • JUNIOR RANGER PROGRAM • AGRICULTURAL PROGRAM • WATER RESOURCES •

Land and Visitor Services: Trail Study Area Implementation

Trail Study Area Implementation

Marshall Mesa/Southern Grasslands and Eldorado Mountain/Doudy Draw

The Visitor Master Plan set forth goals and initiatives that establish an overall framework for enhancing visitor experience and services while protecting resources on OSMP lands. Trail Study Area plans are area-specific plans that focus VMP implementation by assessing visitor access and resource protection needs and developing recommendations for improving the visitor experience and creating more physically sustainable trails and trailheads. Two TSA plans have been completed and are being implemented: the Marshall Mesa / Southern Grasslands and the Eldorado Mountain / Doudy Draw TSAs. Both plans called for new trails, resource protection measures, trail and trailhead improvements, and new recreational opportunities. In 2009, OSMP continued with the implementation of both plans.

2009 Accomplishments:

Eldorado Mountain/Doudy Draw TSA

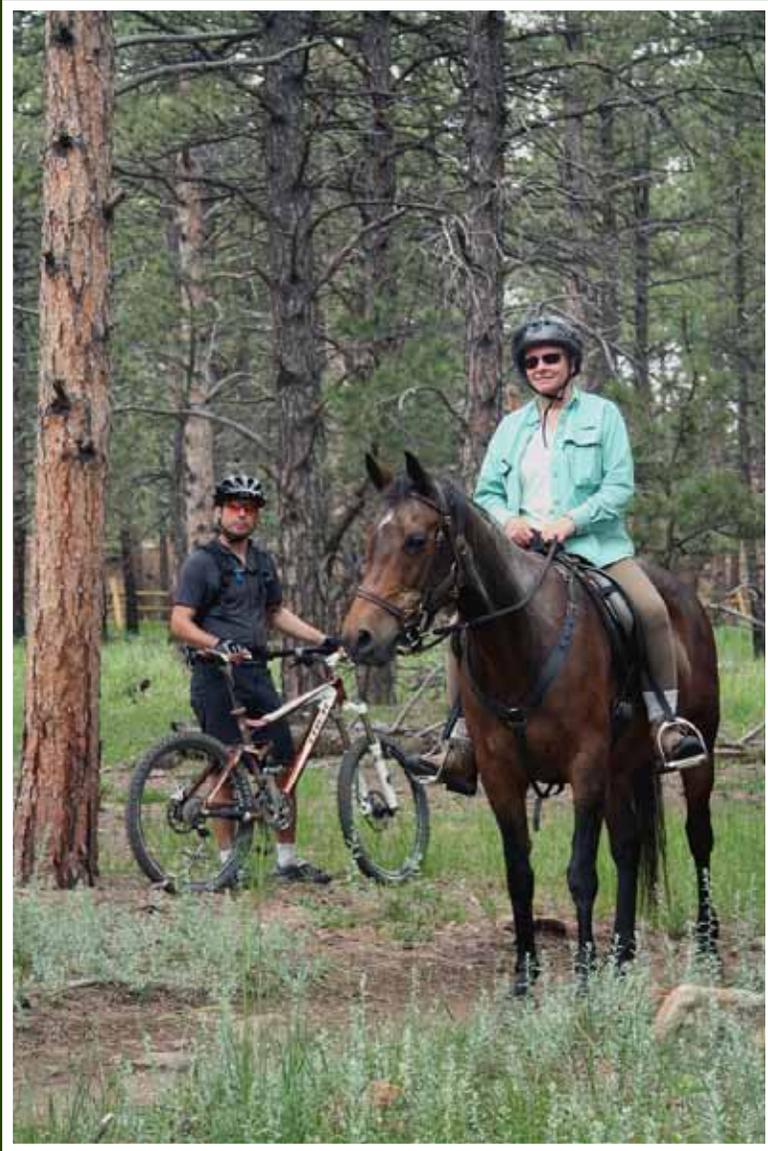
- South Boulder Diversion Canal bridge for Goshawk Ridge Trail installed and the trail opened.
- Began off-trail permit program for Eldorado Mountain Habitat Conservation Area (HCA).
- Trail improvements: Doudy Draw rebuild (wheelchair accessible improvements from trailhead to Community Ditch).
- Refurbished Doudy Draw picnic area.
- Improved and refurbished Doudy Draw and Flatirons Vista Trailheads.
- Visitor experience and natural resource monitoring.

Marshall Mesa/Southern Grasslands TSA

- Construction began on Singletree to Cowdrey Draw connection (Boulder County Parks and Open Space manage construction).

What to look for in 2010:

- Assessment of undesignated trails in the Marshall Mesa/Southern Grassland TSA for designation or closure and restoration.
- Interpretive signs for Doudy Draw Trail and Flatirons Vista Trail.
- Continued trail planning for improving the connection between Community Ditch Trail and Greenbelt Plateau.
- Visitor experience and resource monitoring continues.



Land and Visitor Services: Trails Program

Trails Program

The Visitor Master Plan was created to establish a balance between increasing visitation on OSMP lands and natural resource concerns. One of the primary tools identified in the VMP to attain this balance is creating a system of sustainable trails. In order to create a system of sustainable trails from the existing trail system, many trail projects (of various scope and sizes) need to occur, along with on-going regular maintenance of existing trails.

The OSMP trails group has a budgeted amount of resources: staff hours, seasonal hours, Junior Ranger hours, and money for equipment, contractors, and construction materials. A certain amount of those resources are committed to light maintenance and an allocation of time/materials for unforeseen trail work (such as trees blowing down and blocking a trail). In 2009, all OSMP trails received light maintenance.

2009 Accomplishments:

In addition to light maintenance, OSMP must also complete numerous larger projects to create a sustainable trail system.

In the mountain backdrop:

- A portion of Bear Canyon Trail was re-routed and the old trail tread was closed for restoration.
- A portion of EM Greenman Trail was re-routed and the old trail tread was closed for restoration.
- Gabian steps at 1st Flatiron Climbing Access trail were rebuilt.
- Ditch work was needed to keep trails from flooding in the Sanitas Area.

In Eldorado Mountain / Doudy Draw Trail Study Area:

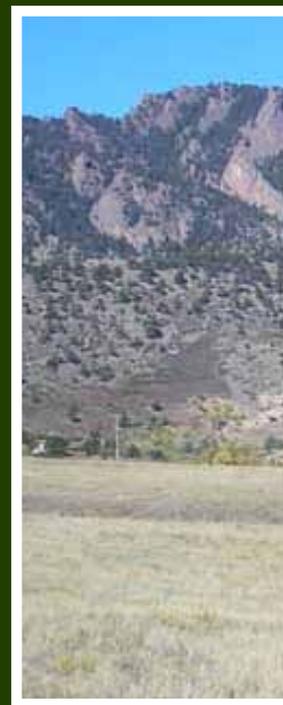
- The Doudy Draw Trail, from the parking lot to Community Ditch, was reconstructed.
- A bridge was installed to connect Spring Brook Loop and Goshawk Ridge Trail.
- The rock steps at the Doudy Draw Picnic Area were completed.

Other projects included:

- Wonderland Lake Trail was resurfaced with crusher fines on the north and west side of Wonderland Lake.
- The approach to bridges on South Boulder Creek Trail to restore ADA access was fixed.

What to look for in 2010:

In 2010, look for major trail projects to occur across all the OSMP trail system.





Land and Visitor Services: Junior Ranger Program

The Junior Ranger Program

The Junior Ranger Program engages youth in meaningful work that makes a difference to our open lands, parks and community. Since 1965, the program has provided youth employment which incorporates job skills, stewardship and environmental education. Junior Rangers are teens, 14 to 17 years old, from Boulder and the surrounding area. Crew members are hired through a selective application and interview process to serve for five weeks during the summer.

Junior Rangers contribute to essential maintenance projects on Open Space and Mountain Parks. Job duties include general trail maintenance, noxious weed removal, clean-up work and other maintenance projects. Junior Rangers also participate in environmental education and team-building activities. Participants are encouraged and supported in exploring the land around them - defining their relationship to the land on which they work and live. The department relies on the program to accomplish a major portion of the general maintenance conducted on system trails.

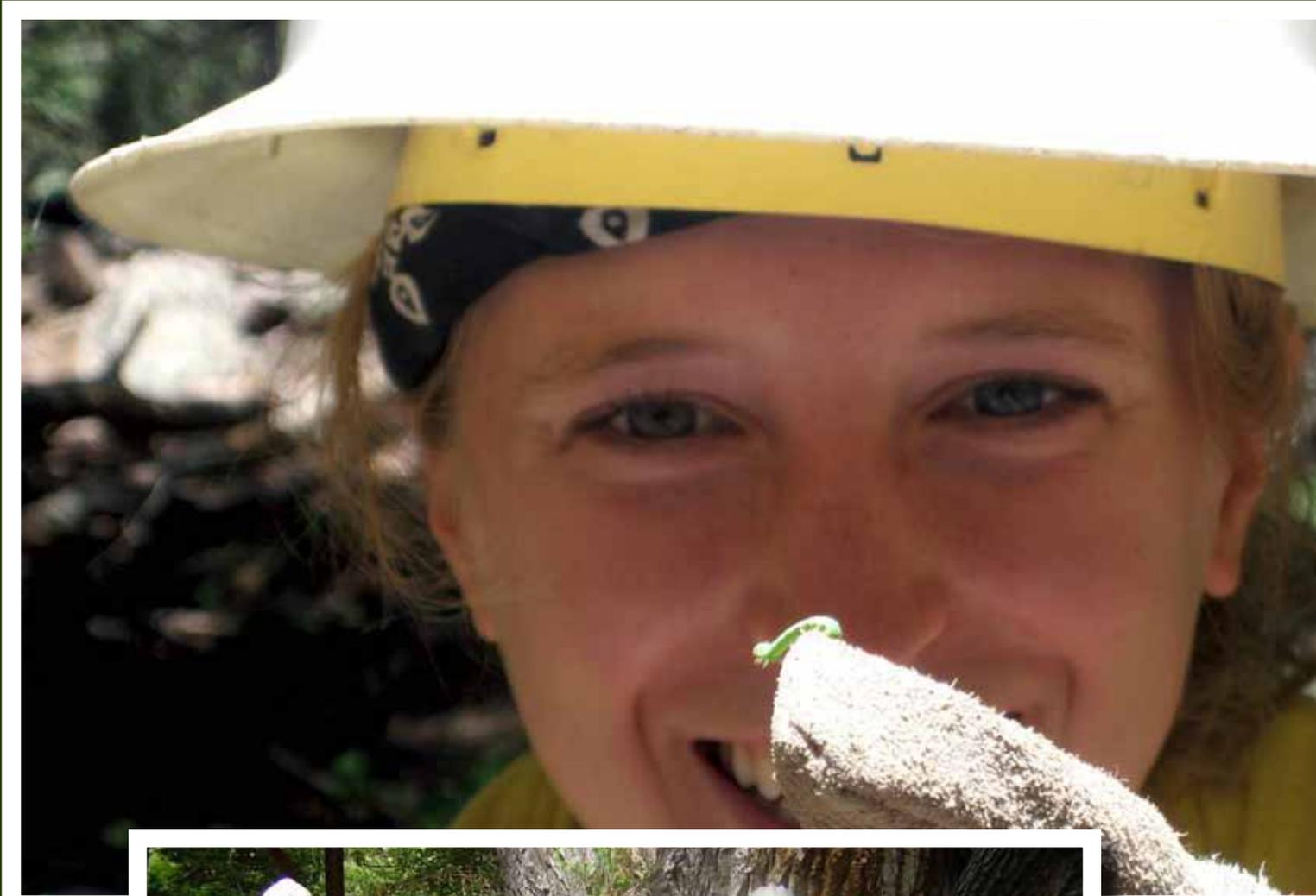
2009 Accomplishments:

- Five Junior Ranger crews provided 10,416 person-hours of maintenance on 36 miles of trail.
- Eighty teens were hired to serve OSMP from a pool of more than 250 applicants.
- This was the largest pool of youth applicants ever. All eligible applicants were offered interviews.
- Over 2,300 person-hours were dedicated to the completion of the EM Greenman re-route.
- Junior Rangers removed priority invasive plants from 306 acres of OSMP lands.
- The program newsletter was produced and distributed to all participants.
- Stewardship and community pride was fostered throughout program.

What to look for in 2010:

- Work by the Junior Rangers on assisting with the maintenance of trails, helping with the management of invasive plants, and collaborating with trails staff on in-house trail projects will continue.
- Unfortunately, there will only be four crews this year with 224 applicants vying for the coveted positions.





Land and Visitor Services: Trailhead and Maintenance Program

Trailhead and Maintenance Services

Trailhead crews spent a majority of their time with cyclic maintenance of trailheads and access points. 2009 presented staff with an increase in the number of vandalism issues and challenging graffiti removal projects. Trailhead staff assisted with construction at the newly refurbished Doudy Draw and Flatirons Vista trailheads with much of their efforts centered on laying out and installing the vehicle parking structures. Staff also dedicated time to identifying access points needing improvement for wheelchair accessibility related updates. This effort continues OSMP's commitment to improving access for all visitors.

More than 36 individual issues of citizen and staff concern were addressed to improve or resolve problems occurring on OSMP lands. In addition to general maintenance, staff handles many other maintenance tasks including: hazard tree complaints, hazardous waste management and remediation efforts, and private property access, encroachment and boundary issues.

2009 Accomplishments:

- Supervised over 2,900 hours of volunteer groups assisting on maintenance projects, including community service commitments, Eagle Scout projects and jail crew services.
- Maintained the condition and safety of OSMP's trailheads, access points, and visitor facilities, including fixing worn or broken infrastructure, keeping the infrastructure clean, snow removal, vegetation mowing and management, and many small site-specific projects that improve places visitors enjoy.

What to look for in 2010:

- Continued regular maintenance of trailheads, access points, and the many things in OSMP's visitor infrastructure that unexpectedly wear out or break.
- In-depth and comprehensive review of restrooms on OSMP property.
- Assisting with trail projects as needed. Junior Ranger Program



Land and Visitor Services: Agricultural Program

Agricultural Program

The Agricultural Program serves the community and maintains the rich agricultural history in the Boulder Valley by managing 14,000 acres of OSMP land for ranching and growing crops. The most wide-spread agricultural use was livestock grazing. In addition to benefiting local ranchers, livestock grazing also acts as an important grassland management tool. Livestock grazing provides for weed management and healthy habitats for most of the native grassland communities on the OSMP landscape. Livestock grazing also enhances OSMP's sustainability initiatives by providing an option for natural agricultural production. Four of OSMP's beef producers are certified to market natural beef, including OSMP's largest cattle producer and agricultural tenant.

The irrigated cropland areas on OSMP lands are used primarily to produce hay products including grass hay and grass / alfalfa hay mixtures. This forage is fed to the producer's own livestock and sold to small acreage animal owners throughout the Boulder Valley. Other major products included wheat, barley and corn.

2009 Accomplishments:

- Renewed 17 agricultural contracts and collected \$156,392.00 in agricultural lease revenue.
- Participated in reclamation, revegetation, and facility improvement projects such as the Doudy Draw Trail, Cherryvale Road Bridge, Flatirons Vista livestock corral and repairing fences after the January Old Stage Fire.
- Replaced or repaired irrigation structures on the Autrey, Anderson and King Hodgson properties
- Insulated and updated several small outbuildings to save energy and prevent maintenance issues during cold weather.
- Coordinated with surrounding agencies involved with agricultural management including Boulder County Parks and Open Space and the U.S. Department of Agriculture (Farm Service Agency and Natural Resources Conservation Service).





Land and Visitor Services: Water Resources

Water Resources

OSMP has a large and valuable portfolio of water rights. Many of these rights are in the form of ditch company stock. This means that OSMP is actively involved in the management and operations of ditch companies. Accordingly, staff represented OSMP interests at 33 ditch and lateral company annual meetings. In addition, staff regularly attended board meetings and performed other duties related to these ditches. Staff sits on 13 ditch boards, and serves various capacities on those boards, including president, vice president, and secretary treasurer. Activities related to ditch companies include payment of annual assessments, coordination and consultation on ditch maintenance and operations. Staff also inspects and supervises construction projects for ditch companies.

In addition to ditch company matters, staff operates various ditches and reservoirs owned by OSMP. Staff hand-cleaned about 15 linear miles of ditches and laterals with the help of the AmeriCorps and jail crews. Additional duties for ditch operation include record keeping for state reporting purposes. Staff contracted to remove trees from various ditch banks and dams.

2009 Accomplishments:

- Staff helped organize and produce the Boulder sesquicentennial program, “150 Years of Irrigation Ditches: Constructing Boulder’s Landscape” at the Dairy Center for the Arts and the Boulder Public Library that included over 40 local artists. The program also included a symposium on ditches, and bike rides and hikes to discuss the history and operation of local ditches.
- There were many infrastructure improvements, including diversion boxes, headgates, culverts, and ditch lining on properties and ditches such as Burke 1, Steele, King –Hodson, Bixler, Gisle, Enterprise Ditch, Ditzel Lateral of Farmers Ditch, Green Ditch/ Kolb White Rock Lateral, and Silver Lake Ditch.
- GIS water resources covers and databases were updated and water databases were maintained and updated.
- Staff completed water surveys, water right applications, and managed various water and ditch management agreements.
- Staff completed the acquisition of 53 shares of North Boulder Farmers Water with the help of the Real Estate Division.

What to look for in 2010:

- Gross Reservoir Enlargement aquatic mitigation negotiations.
- Arapahoe Pit augmentation.
- Goodhue ditch fish passage project.
- Acquire bids for Bennett Property irrigation upgrades.





CULTURAL RESOURCES



CULTURAL RESOURCES

Cultural Resources Program

Cultural Resources Program

People have lived on and enjoyed the lands of Open Space and Mountain Parks for thousands of years. Their stories and the evidence they've left behind are what Cultural Resources is all about. Cultural Resources promotes the study and appreciation of people through the ages and their effect on the land as well as the preservation of historic structures and archaeological sites. OSMP has also included paleontology, the study of what fossils tell us about the ecologies of the past, in Cultural Resources.

The Cultural Resources program began in 2008 and continued to grow in 2009. In the past year, the focus has been to educate staff and the community about these important resources and the rehabilitation of some of our most prominent structures.

2009 Accomplishments:

West TSA

Cultural resource inventories of West TSA were re-surveyed and updated.

Cultural resource staff has participated with the Community Collaborative Group (CCG) to help educate and inform them on pertinent issues within the West TSA.

Structure Rehabilitation

Masonry was repaired on Green Mountain Lodge, Halfway House, Panorama Park Restroom, Flagstaff Summit Shelter. Bluebell Shelter received masonry and roof repair. Paint and landscaping were updated with help from AmeriCorps. The amphitheatre near the Bluebell Shelter was also repaired.

Chapman Drive

An historic preservation and engineering assessment was conducted on Chapman Drive.

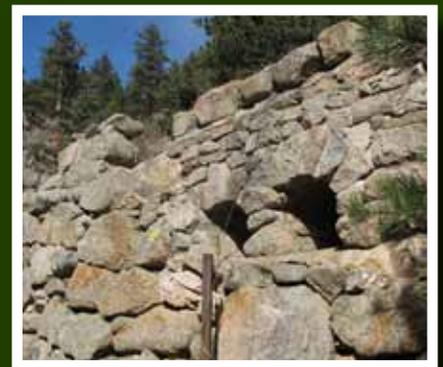
An application to nominate Chapman Drive as part of the already existing Boulder County Flagstaff Historic District was prepared and submitted. Nomination was approved by Historic Preservation Advisory Board. Nomination approval by Boulder County Commissioners was received in January 2010.

Speaking Engagements

The Cultural Resource Programs Coordinator, Julie Johnson, was asked to speak to several organizations about OSMP cultural resources, including Historic Boulder, Inc., Colorado Open Space Alliance (COSA) and Colorado Preservation, Inc. (CPI) Annual Conference.



Photo by Doug Goodin







ACQUISITIONS

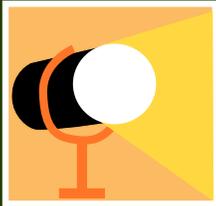
REAL ESTATE ACQUISITIONS • CONSERVATION EASEMENTS • SPOTLIGHT ON LINDA VANDERVORT •

Acquisitions: Real Estate Acquisitions and Conservation Easements

Real Estate Acquisitions

The City of Boulder owns and manages more than 45,000 acres of Open Space and Mountain Parks land in and around Boulder, Colorado. The very first piece of land, 80 acres at the base of Flagstaff Mountain, was purchased by the city in 1898 to be used as one in a series of Chautauqua cultural centers around the country. Since then, the Open Space program (established in 1967) has acquired over 395 separate properties. An animated map series on the OSMP website (http://www.bouldercolorado.gov/images/departments/openspace/images_gis/osmp-4.gif) shows purchases over time. Although many current acquisitions are not as large as in the early days of the program, each piece of property serves as a critical connection to the existing system and fulfills the purposes of the City of Boulder Charter section on Open Space.

The Acquisition Program implements the Open Space Acquisitions and Management Plan 2005-2011, adopted by the Boulder City Council in 2005. The Plan proposed a long-term acquisition goal of 7,900 acres (http://www.bouldercolorado.gov/files/openspace/pdf_properties/acquisition-area-2005-2011_050509.pdf). These remaining lands include those properties most threatened by development, properties adjacent to or nearby existing open space lands, and areas of prime riparian and wildlife habitat. There are 5,815 acres of land remaining to be protected. As land is acquired, it will be added to the existing 45,090 acres of land in the OSMP system.



Spotlight on Linda Vandervort

Prior to being the Conservation Easement Specialist for OSMP, I was a real estate attorney. I also had a passion for preserving the natural environment and enjoyed hiking and camping. In addition, I was born and grew up in the west and have a long connection with Colorado.

I like working for OSMP because it gives me deep satisfaction to work to preserve the beautiful land around Boulder and to work with great committed people. My job combines my personal “save the environment” philosophy with my background as a lawyer. It is always challenging and interesting and has required me to learn many new things such as agricultural management, map making, natural resource evaluation, weed control guidelines, conservation easement law, etc.



Conservation Easements

From the beginning, the City of Boulder has used conservation easements as part of its acquisition strategy in preserving and protecting Open Space and Mountain Parks lands. OSMP conservation easements cover approximately 9,400 acres, which is about 20 percent of the total OSMP acreage. There are more than 100 easements on several types of land including forested land, wetland/stream areas, small acreage rural properties, and ranches/farms. OSMP is tasked to provide stewardship of these conservation easements which includes monitoring, managing, and creating partnerships with the landowners. It also includes preparing Present Condition Reports, as well as accurate maps and photographs, all in archival condition.

2009 Accomplishments:

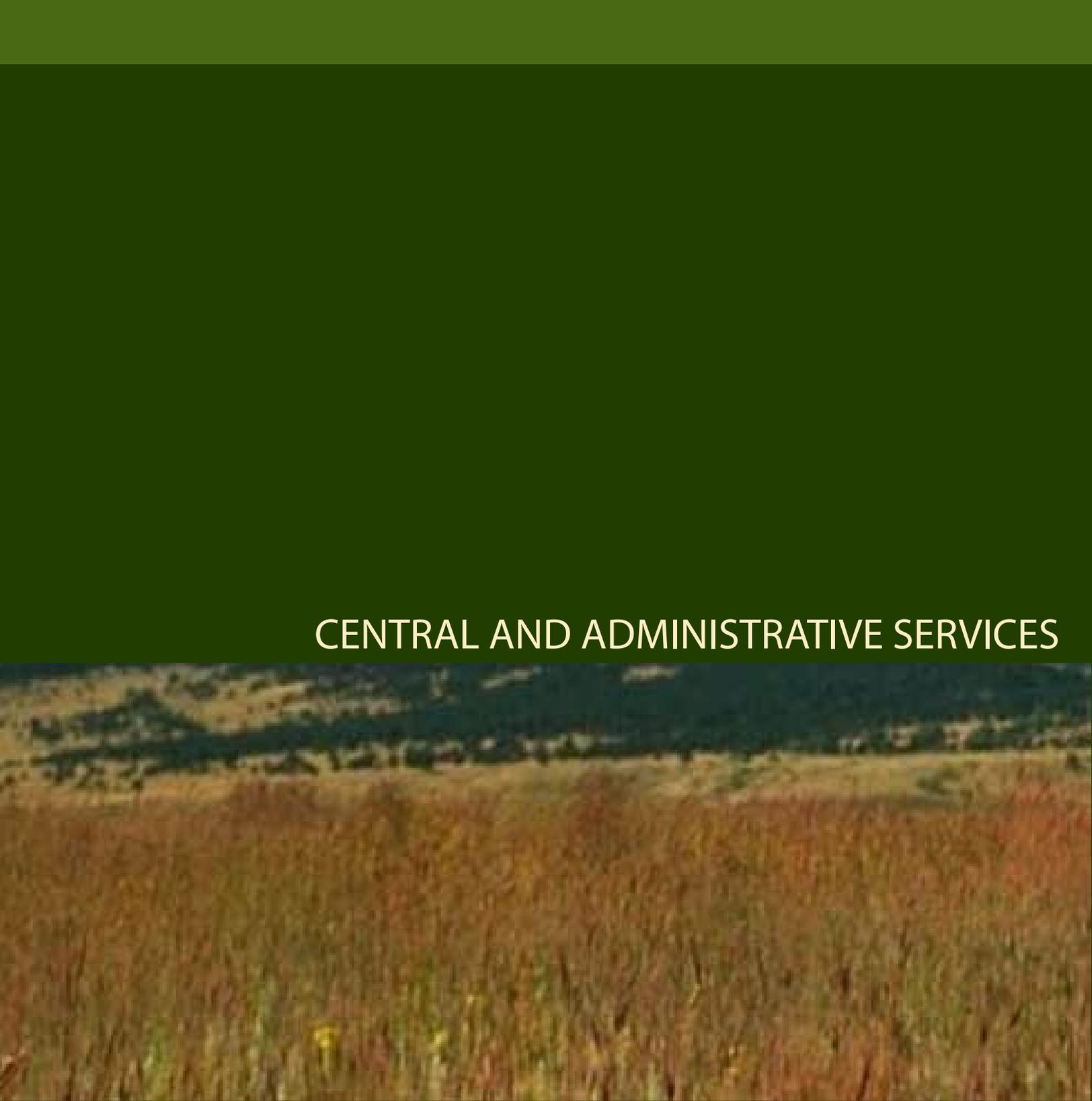
- Formal monitoring visits were conducted on conservation easement properties. Changes of ownership had occurred on several properties and the new owners were educated about the conservation easements on their property.
- Preparation of Present Condition Reports for several older conservation easements were completed. In particular, the report for the National Institute for Science and Technology (NIST) easement was extensive, complicated and involved a great deal of research and interviews.
- Several landowners were potentially interested in donating conservation easements to OSMP but all decided against donation. It was a difficult year for donations, in part due to the continued uncertainty surrounding the conservation easement tax credit.
- A busy 2009 also included coordination with Boulder County on conservation easement issues, and assisting the City's Utilities department with their conservation easements.

What to look for in 2010:

- Continue monitoring conservation easements.
- Complete more Present Condition Reports.
- Address management issues that come up related to conservation easements.
- Keep up-to-date on the legislative activities surrounding conservation easements, and continue to be a resource to the public and staff regarding conservation easements.
- Promote donations in 2010 because the tax credit program will be reduced for the following three years.







CENTRAL AND ADMINISTRATIVE SERVICES

FINANCIAL SERVICES • SPOTLIGHT ON PERMITS • SPOTLIGHT ON VOICE & SIGHT DOG TAG PROGRAM

Central and Administrative Services: Financial Services

Financial Services

In 2009, staff of the Financial Management Services group performed a study of parking fees at area parks and open spaces. It was determined that the fees charged by the Open Space and Mountain Parks Department for parking on Flagstaff Mountain were below the lowest fees charged by other local agencies. Based on this data, the department recommended to both the Open Space Board of Trustees and the City Council that the fees for parking on Flagstaff Mountain be increased from \$3.00 per day to \$5.00 per day and the annual permit be increased from \$15.00 to \$25.00. Both the Board of Trustees and the Council agreed with this recommendation and the respective fees were increased effective January 1, 2010.





Spotlight on Permits

Commercial Use, Special Use, and Off-Trail Permits manage commercial and large group activities, and off-trail use in Habitat Conservation Areas (HCAs). OSMP has designed these programs to help minimize impacts to natural, agricultural and cultural resources and preserve the quality of the visitor experience. Learn more about the permit programs at www.osmppermits.org.

Commercial Use Permits are designed for any activity for which fees are charged or a donation is required for services and that bring people or dogs to OSMP lands. Examples include guiding or instruction in climbing, environmental education, horseback riding as well as dog walking, filming and photography. Special Use Permits and Permission Letters are designed for any group activity with 25 or more participants. Examples include group hikes, rides or picnics, and school field trips.

Off-Trail Permits are designed for any activity occurring off a designated trail in a Habitat Conservation Area (HCA). To learn more about HCAs, see the "Rules and Regulations" section of the OSMP website. Designated trails are marked with signs that include a trail name and can be found on our online maps. Dog walking is not an allowed off-trail permit activity. Bicyclists must remain on designated trails that are open to bikes.

2009 Accomplishments:

- Continued administering the permit programs.
- Reviewed monitoring information for off-trail permits; did not adjust requirements based on visitor activity or any need for additional resource protections.
- Implemented off-trail permit requirements in the Eldorado Mountain HCA.
- Continued to provide education and outreach to community about the permit program and HCA values.

What to look for in 2010:

- Review Commercial Use permit program.
- Continue administering the permit programs.

Permits Issued in 2009

Permit Type	Number of Permits Issued	Number of Planned Trips	Number of People
Commercial Use*	53	2,155	30,687
Special Use**	54	197	9,643
Off-Trail	482	482	738
Total:	591	2,836	41,071

*Total number of commercial use planned trips and people are the estimated numbers given by permit holders at the beginning of 2009.

**Permission letters included in total number of special use permits, trips and people.

Central and Administrative Services: Spotlight on Voice and Sight Dog Tag

Voice and Sight Dog Tag Monitoring

Following implementation of the Voice and Sight Dog Tag Program, OSMP observed:

- an increase in leash use in areas where voice and sight control was allowed.
- a decrease in dog-related conflict.
- an increase in compliance with observable portions of the Voice and Sight ordinance.
- a decrease in compliance with excrement removal regulations.

What to look for in 2010:

OSMP will repeat the monitoring associated with the Voice and Sight Dog Tag Program in 2010 and compare the results to data collected in 2006 (before implementation of the program) and 2007 (after implementation of the program).



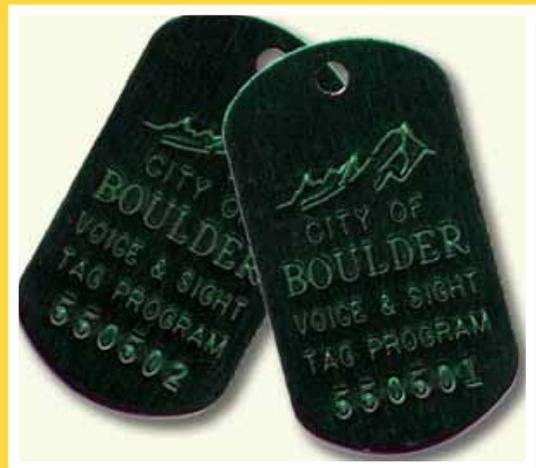
Spotlight on Voice and Sight Dog Tag Program

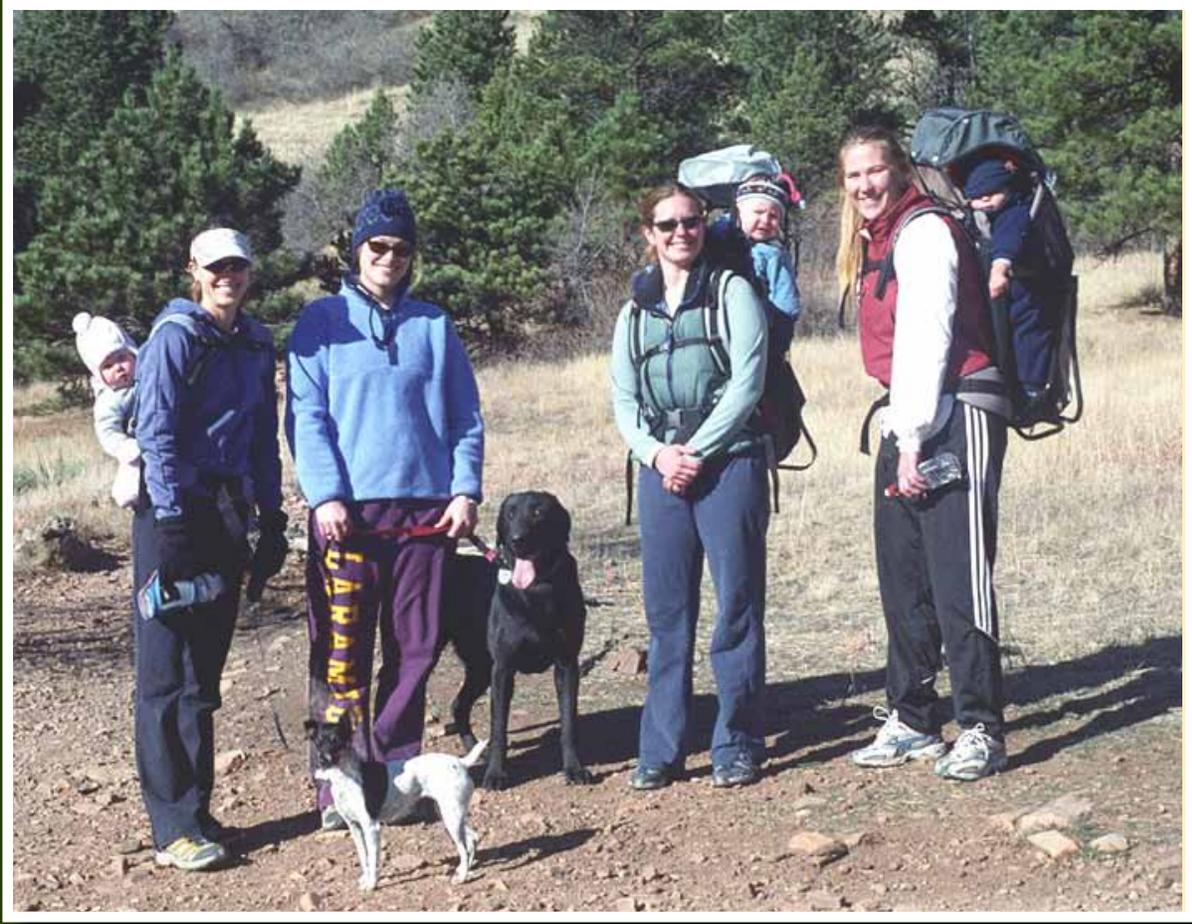
The program began in 2006 to reduce conflicts between visitors, dogs, and wildlife by helping dog guardians understand the Voice and Sight control standards. At the start of 2010, 16,000 households are registered in the program and 20,795 tags have been issued.

The City of Boulder is one of only a few open space or natural land systems on the Colorado Front Range which allows dog guardians to walk dogs off-leash. This opportunity is possible only if dogs are responsibly managed in Voice and Sight control areas.

The Voice and Sight Dog Tag Program has been designed by the City of Boulder and members of the Boulder community to help dog guardians better understand Voice and Sight control standards. Understanding and meeting these standards will help increase compliance and reduce conflicts that can occur between dogs, visitors, and wildlife.

The Voice and Sight Dog Tag Program requires dog guardians to watch a video about Voice and Sight control, register with OSMP and display a Voice and Sight tag on dogs they wish to walk off-leash. This program is only for dog guardians who intend to walk their dogs under Voice and Sight control and only applies to City of Boulder properties where Voice and Sight control is allowed.





NOTES:



Photo by Doug Goodin

ENJOY.



PROTECT.