

North Trail Study Area Inventory and Assessment Report Key Findings

Purpose of the Inventory and Assessment Report

The overall purpose of the North Trail Study Area (TSA) Plan is to provide the management direction and describe strategies and actions that will improve visitor experiences and increase the physical and environmental sustainability of trails, trailheads and visitor infrastructure in the North TSA while conserving natural, cultural and agricultural resources. The North TSA Plan will articulate the community's long-term vision and identify on-the-ground management actions directed at achieving that vision.

The Inventory and Assessment Report is a compilation and analysis of information about existing conditions of the recreational, natural, cultural and agricultural resources in the North TSA. The information is based on field work, research, surveys, resource inventories, system-wide monitoring programs and on-the-ground knowledge. The sources of information are as varied as the data, with community members, the Open Space Board of Trustees (OSBT), university researchers, partner agencies and OSMP staff members all contributing to the picture of the North TSA drawn in this report.



Photo credit: Philip Yates, OSMP

The purpose of the Inventory and Assessment Report is to inform discussions and decisions about how to achieve the goal of the North TSA Plan and assess how various plan recommendations could affect OSMP resources. The Inventory and Assessment Report provides information and analysis to help identify ways to enhance visitor experiences and conserve the most valuable and vulnerable natural areas, cultural sites and agricultural lands. Most of this information is shown on maps, so it can be overlain with proposed improvements to the designated trail system, possible new trail connections and decisions on how best to manage undesignated trails and entry points. In previous TSA planning efforts, the information from the inventory reports was essential in developing and establishing a sense that the overall set of recommendations was well-balanced and compatible with OSMP's multiple purposes.

Included in this brief summary are a description of the North TSA, key findings from the four resource sections (recreational, natural, cultural and agricultural) and common themes from the information shared by the public about current conditions in the TSA.

Description of the North Trail Study Area

The North TSA encompasses 7,700 acres of OSMP-managed lands north of Linden Avenue and the Diagonal Highway and includes diverse landscapes from hogback ridges to open grasslands and small lakes. The TSA includes OSMP-managed properties adjacent to lands managed by Boulder County Parks and Open Space and areas managed by the city's Parks and Recreation Department including Boulder Reservoir.

Recreation

Recreational opportunities occur throughout the North TSA and include a wide range of activities—such as hiking, bike riding, running, horseback riding, dog walking, hang gliding/paragliding, fishing, picnicking and nature study. Most visitors to OSMP (and likely to the North TSA) report a high quality of experience and enjoy the natural setting for passive recreation. The North TSA contains some very popular and frequently visited areas such as Wonderland Lake, the Foothills Trail corridor, Boulder Valley Ranch and some more remote and less frequented locations such as the Lefthand and Hogback Ridge trails.

The OSMP Visitor Master Plan (VMP) established an area-based framework for implementing management strategies, policies and priorities for visitor infrastructure improvements and service delivery. In the North TSA the following management area designations exist:

- 1,555 acres designated as Passive Recreation;
- 2,323 designated as Habitat Conservation;
- 1,729 designated Agricultural; and
- 266 need to have designations established.



Photo credit: Philip Yates, OSMP

Roughly 20 years ago the North TSA received an estimated 315,000 annual visits, now the number is roughly one million visits (one fifth of the overall OSMP visits). Most visitors (56.1 percent) come to the North TSA to participate in particular activities and fewer (39.9 percent) identified a desire to experience the place itself or to socialize with family or friends (4 percent). The North TSA is enjoyed by many types of visitors, but primarily by hikers (>50 percent), bikers (>15 percent), runners (>25 percent), visitors with dogs (>20 percent), equestrians (1 percent) and other (fishers/hang gliders/paragliders).

The North TSA contains a total of 35.7 miles of undesignated trail which indicates that the designated trail system (19.2 miles) does not provide access to some places visitors want to access. There are 15 designated entry points as well as 62 undesignated entry points that are located where an undesignated trail originates at the OSMP property boundary. Twenty five percent of the area's key destinations are not served and another 25 percent are only served by

undesigned trails. Several potential connections identified as not currently being served by a designated trail include:

- North Foothills Trail to Joder property
- Sage Trailhead to Eagle Trail
- Kelso Road to Hidden Valley Trail
- Wonderland Hill Trail to Old Kiln/South Foothills Trail
- South Foothills Trail (Wonderland Lake) to high ridge loop

Areas with connections underway include:

- 63rd Street to Cottontail Trail
- Fourmile Creek Greenway to Cottonwood Trail

Prior to the North TSA planning process, potential regional trail corridors through the study area have been identified and advanced through public planning processes, some led by departments or agencies other than OSMP. Relevant regional trail concepts put forward by OSMP planning processes are below:

- **Visitor Master Plan**
 - A new multi-jurisdictional trail from Lyons to Boulder along the Boulder Feeder Canal. This trail has been put on hold due to public concerns and land ownership issues.
- **North Boulder Valley Area Management Plan**
 - East-west trail corridor through the Axelson property connecting to the North Rim Trail.
 - Assess a north-south trail corridor through the West Beech property, Six-Mile Fold (owned and managed by Boulder County) and Buckingham Park.

Half of North TSA visitors arrive by walking or running and 11 percent arrive by bike (unlike the rest of the OSMP system where 57 percent arrive by car). Although North TSA entry points are evidently easily accessed by foot or bike, most are not conveniently served by transit.

There is a trend of increasing trail miles with non-compliance with design standards and maintenance issues, but much of this increase can be attributed to the 2013 flood with grade, tread width, erosion and braiding being the most common issues.

Natural Resources

Many of the ecosystems west of Highway 36 in the North TSA are generally healthy and function naturally. Areas to the east of Highway 36 are more intertwined with properties that have historically been altered for agricultural production and contain important wildlife habitat and native plant populations. The North TSA is high in biodiversity due to the transition from prairie to foothills. Within this ecotone there is great variety in terms of topography, soils,

geology, hydrology – and a shift from drier conditions in the low elevation grasslands to higher precipitation levels in the foothills.

The North TSA provides habitat and refuge to several sensitive species such as Bell’s twin pod (plant), bobolink (bird), crossline skipper (butterfly) and Northern harrier (raptor). Some of these rare or uncommon species are or can be threatened by high levels of or dispersed visitor activities. A focus of the North TSA Plan is to maintain or increase the level of natural resource protection and restoration in order to continue achieving natural resource conservation goals. The Grassland Ecosystem Management Plan (Grassland Plan) and the Forest Ecosystem Management Plan (FEMP) provide information on natural resource conservation priorities and goals.

The area from Wonderland Lake north through the Joder Property and east to Lefthand Valley Reservoir has been identified as a potential conservation area by the Colorado Natural Heritage Program (CNHP) and five areas within the North TSA were identified in the Boulder County Comprehensive Plan as Critical Wildlife Habitat. The results of the CNHP surveys indicate that the North Boulder Grasslands (which include big and little bluestem) represent one of OSMP’s best opportunities to conserve threatened butterfly species and their native grassland habitats.



Photo credit: Christian Nunes, OSMP

Some of the largest habitat blocks of Mixedgrass Prairie Mosaic (MGPM) within OSMP occur in the North TSA. There are 4,925 acres in this conservation target which provides habitat for grassland birds, prairie dogs and associated species, prairie rattlesnakes and unusual plant communities such as New Mexico feathergrass. The North TSA MGPM also includes expanses of the more common western wheatgrass, rare shale barrens and the Bell’s twinpod – a rare plant found in Boulder and Larimer counties and nowhere else in the world. Within the MGPM areas there are seven known populations of rare plant species. The Xeric Tallgrass Prairie conservation target is comprised of 621 acres and includes 10 known populations of rare plant species.



Photo credit: OSMP staff

One known population of rare plant species can be found within the 552 acres of Wetlands and Riparian areas within the North TSA. The North TSA also contains all of the known Northern harrier nesting attempts on OSMP and three of the four known 2015 nesting attempts in Boulder County suggesting that wetlands in the North TSA represent an important opportunity to conserve Northern Harrier breeding habitat. The ponds in the North TSA represent an important

opportunity to cooperate with Colorado Parks and Wildlife to conserve plains topminnow (which is found in five ponds within the North TSA and only two other ponds within OSMP).

The 374 acres of Upland Shrublands and 39 acres of Exposed Rock and Cliff also provide valuable habitat. The North TSA contains highly suitable habitat for numerous species as detailed below:

- Grassland-dependent butterflies: 5.3 percent highly suitable habitat reduced to 4.7 percent with trail effect
- Lark sparrows: 26 percent highly suitable habitat reduced to 8 percent with trail effect
- Prairie rattlesnakes: 17.9 percent reduced to 15.8 percent with trail effect
- Lazuli bunting: 1.3 percent reduced to 1.2 percent with trail effect

Cultural Resources

The North TSA contains important paleontological, archaeological and historic resources. There are cultural features and sites that are important to indigenous people, sites and structures indicative of Euro-American settlement, agriculture, transportation and mining. There are three fossil-bearing formations within the North TSA including Fort Hays limestone, Smoky Hills Shale and the Pierre Shale. The Teegarden Wall, a low stone wall that spans down a slope on Dakota Ridge overlooking Highway 36, was an aboriginal gaming wall of note.

Some additional well-known North TSA historic sites include the Old Lime Kiln on the Old Kiln Trail and the north-south grade built for the failed Lefthand and Middle Park Railroad west of Highway 36. Other historic Buildings, Structures and Objects include Boulder Valley Ranch and Foothills Nature Center.



Photo credit: Sue Hirschfeld

Agricultural Resources



Photo credit: Bob Crifasi

Historically, agricultural lands in the North TSA have included beef production, dairy farms, sheep and poultry operations, horse boarding, dry land grain production, irrigated forage, irrigated grain harvesting and vegetable production. Today, the North TSA includes 2,438 acres of Agricultural Lands of Statewide Importance and 498 acres of Agricultural Lands of Local importance which are typically used for cattle grazing and hay production. In response to an uptick in interest in local foods, there is now a diversified organic farm in the TSA as well.

OSMP leases properties to local farmers and ranchers to run agricultural operations and just over

3,000 acres are part of agricultural leases in the North TSA. The Grassland Plan and an Agricultural Resources Management Plan (in development) provide information on agricultural resources, policies and goals.

Four properties (totaling 2,032 acres) within the North TSA have potential to be grassbanks (grasslands that are not leased for agricultural operations, but could be made available for cattle grazing during times of need).

The North TSA's agricultural land is important to bobolinks, which are ground-nesting songbirds that use irrigated hayfields as habitat. Within the North TSA, 43 hayfields support 1/3 of the bobolink population detected across OSMP. To balance maintaining traditional agricultural land use in the North TSA with preservation and maintenance of natural systems and native species, the highest density bobolink breeding areas delay hay cutting in order to preserve this habitat.

Community Assessment



Photo credit: Philip Yates, OSMP

100 comments were received through emails and Inspire Boulder. Several common themes emerged from this engagement.

Members of the public were invited to participate in the discussion about the current conditions and management actions in the North TSA in four ways: 1. Community workshops, 2. Inspire Boulder (an internet based participatory platform), 3. On-site and local store-front engagement with OSMP staff and 4. Email and social media submissions to OSMP staff. More than 240 people provided feedback through workshops, youth engagement, and outreach at trailheads and coffee shops and more than

Regarding recreation, many people reported appreciating the current opportunities for quiet and solitude in the North TSA, noting that the area does not get the high volume of visitors that some other OSMP areas experience. People also appreciate the access to key recreational opportunities that exist in the North TSA. This includes access to specific sites like Boulder Valley Ranch and Wonderland Lake, as well as access for multiple types of recreational activities such as hiking, mountain biking, dog walking, bird watching, nature appreciation, horseback riding, fishing and hang gliding /paragliding. However, participants repeatedly commented on a desire for more trails, with a greater variety and length also commonly cited as something they would like to see. In addition there was frequent mention of the lack of regional trail connections to areas north, west and east from the North TSA. Additionally, there was consistent concern raised over current trail conditions, with many believing that they could be improved throughout the TSA. Some viewed the current trail conditions as a factor contributing to visitor conflicts by forcing different types of activities to share narrow trails.

In terms of natural resources, common themes centered around the importance of the wildlife habitats, native species and natural features that occur in the North TSA. There was particular attention paid to the prairie ecosystem, the raptor populations, geological formations and the water resources. Many people expressed concern about current and potential future impacts to these resources from recreational access. Some people suggested that Habitat Conservation Areas (HCAs) and Natural Areas (NAs) as effective tools for management, while others questioned whether they have unnecessary and/or negative impacts on recreation. A need for balance in managing for natural resources and providing recreation opportunities was frequently stated. Some people also suggested that natural resource protection could be inhibited by the current lack of information about what species or habitats are being protected, why they are important, and how management prescriptions help maintain those resources. It was suggested that additional signage about these issues could improve adherence to natural resource rules and regulations and thereby improve resource protection without changing existing access or management prescriptions.

Regarding cultural and agricultural resources, participants identified many highly valued sites including Boulder Valley Ranch, the Joder property, the Old Cobalt Mill, and the Old Kiln. In general, people would like to see the historic structures in the North TSA preserved and maintained for the future. Some participants questioned whether all of the existing fences and gates are truly necessary and noted how they negatively impact some recreational activities. Additionally, many lamented the lack of interpretative information about these resources, suggesting that visitors to the area are missing opportunities to learn more about Boulder's natural and cultural history including its important agricultural roots. Some people also raised concerns about whether the agricultural resources in the North TSA are being appropriately managed in the public interest and whether additional recreational access to these areas should be permitted.