

# 2024 Trailhead Utilization Study

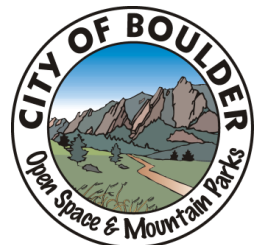
Vehicle Parking, Bike Parking, and Picnic Table Use



Human Dimensions Work Group

City of Boulder Open Space & Mountain Parks

August 2025



# Acknowledgments

Sincere thanks to Shaylene Kole, Matison Lakstigala, and Rachel Stafford for data collection, and Deonne VanderWoude, Colin Leslie, and Heidi Seidel for guidance and support.

Report prepared by: Anna Reed, Human Dimensions Sr. Analyst

Cover photo taken by Shaylene Kole: bicycles and vehicles parked at Chautauqua trailhead.

Suggested citation:

Reed, A. (2025). 2024 Trailhead Utilization Study: Parking Lot, Bike Rack, and Picnic Table Use. The City of Boulder, Department of Open Space and Mountain Parks. Boulder, Colorado.

## Table of Contents

1	Introduction.....	1
1.1	Purpose of this Report .....	1
1.2	Background.....	1
2	Methods .....	2
2.1	Methods and Sampling .....	2
2.2	Locations .....	3
3	Results and Applications.....	8
3.1	Vehicle Parking.....	8
3.1.1	High Demand: Chautauqua.....	11
3.1.2	Exceeding Capacity: Dry Creek.....	12
3.1.3	Horse Trailers: Various Locations .....	13
3.1.4	Unauthorized Parking: Flatirons Vista .....	13
3.1.5	Lower Demand Locations .....	14
3.1.6	Vehicle Parking Trends.....	14
3.2	Bike Parking .....	15
3.2.1	Peak Use .....	17
3.2.2	Unattached bikes .....	19
3.2.3	Bike rack styles and locations .....	20
3.3	Picnic Tables.....	20
4	Additional Sources and Next Steps .....	22
5	References .....	23

# 1 Introduction

## 1.1 Purpose of this Report

This report documents vehicle parking, bike parking, and picnic table use at Open Space and Mountain Parks (OSMP) locations. This builds on a previous study conducted 2019-2020 (Reed, 2022) which solely measured vehicle parking at formal OSMP trailheads. This follow-up includes baseline data for bike parking and picnic table use, which have not been systematically measured to date. In addition to formal trailheads, this study also includes manually selected access points where visitors can access trails, but OSMP does not manage vehicle parking. These locations are generally less developed and have fewer amenities, but still provide significant means of access to OSMP trail systems. This expanded scope allows OSMP to better understand where amenities are over- or under-utilized, help prioritize future infrastructure needs, and assess trends over time.

## 1.2 Background

The 2019-2020 parking study used a mixed-methods approach to document vehicle parking at OSMP-managed trailhead parking lots from June 2019 to March 2020. The methods consisted of a combination of vehicle counters, trail counters, field cameras, and direct observation. To collect new data on bike and picnic table use this 2024 study solely relied on direct observation for data collection.

## 2 Methods

### 2.1 Methods and Sampling

All locations in the study were grouped into six driving routes that could each be completed in under an hour: East, Northeast, North, West, Flagstaff, and South. A single session was composed of three routes, allowing half of the system to be surveyed per session. The starting route was randomized so the hours at which each location was visited was more varied.

Each site was visited about 42 times from June 3, 2024 to November 3, 2024, with half of the visits occurring on weekdays, and half on weekends. Times were similarly balanced across three time periods: AM (starting at 7:00), Mid-day (starting at 11:00), and PM (starting at 15:00).

The following were counted and inputted into an ArcGIS Survey123 form:

- **Vehicles**
  - **Standard:** vehicles parked inside the formal trailhead. This includes cars, SUVs, motorcycles, trucks, buses, and vehicles with trailers (excluding horse trailers which are documented elsewhere).
  - **Accessible:** vehicles parked in accessible spaces. These vehicles were not checked for compliance.
  - **Horse trailers:** vehicles with horse trailers attached.
  - **Outside lot informal:** vehicles parked outside of formal OSMP trailhead parking lots. This includes areas pre-selected for observation that were determined to likely be used for trail access, although some vehicles may be there for other purposes (e.g., neighborhood parking).
  - **Unauthorized:** vehicles parked in unauthorized areas (e.g., in front of no-parking signs, standard vehicles parked in horse trailer areas).
- **Bikes**
  - Bikes were categorized as “Standard” or “E-bike” based on the best judgment of the observer. In addition, bikes were categorized as:
    - **Extended:** bikes longer than an average bike, including tandem, cargo, and bikes with trailers.
    - **Unattached:** bikes not attached to a bike rack (e.g., standing alone, attached to a pole or tree)
- **Picnic tables**
  - Number of occupied picnic tables.

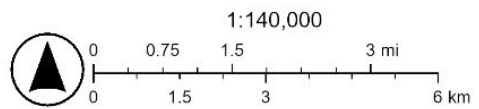
Not all infrastructure was necessarily included in the study. For example, picnic tables are present at Chautauqua and interior at Doudy Draw, but these were excluded for ease of data collection.

## 2.2 Locations

Fifty locations were included in this study: 36 trailheads and 14 access points, which encompasses all OSMP trailheads except for Fourth of July and NCAR (Figure 1). OSMP has over 100 access points, and a small selection were manually selected for the study. These were selected because they were near areas with new trails being constructed (North Sky Trail which opened July 2024, and Vesper Trail which was closed during most the study period but will provide baseline data), higher visitation areas, and other areas of interest.

The map displays the Boulder, Colorado area, including surrounding regions like Niwot, Louisville, and Superior. Key features include the Boulder Reservoir, Boulder Mountain, and the Indian Peaks Golf Course. Major roads shown are Highway 36, Highway 7, Highway 119, and Highway 52. Sampling locations are indicated by red and blue dots. A high density of red dots is visible in the western part of the map, particularly near the Fourmile Canyon and Seven Hills areas. Blue dots are scattered throughout, with notable clusters near Boulder Reservoir and in the northern part of the map. The map also shows various creeks and ditches, such as Williamson Ditch, Dry Creek, and Bear Canyon Creek.

- Trailhead
- Access Point



4



The intended vehicle capacity at a trailhead, or number of parking spaces available, can vary based on several factors. The capacity was determined based on painted line delineations and wheel stops if available. When the capacity was unclear, the available space (approximately 8.5 feet wide per vehicle for pull-in parking and 24 feet long per vehicle for parallel parking), and the number of vehicles present when the area was observed as “full” (i.e., another standard-sized vehicle could not fit), were also taken into consideration. Select areas were identified to document spillover parking outside formal trailhead areas at a few locations. These were selected if staff determined they are primarily used for OSMP access and were reasonably feasible to include in data collection. Certain areas were excluded from vehicle data collection if we could not reasonably distinguish trail access parking from other uses or if vehicles could not be safely counted in the time allotted.

Bike capacity varies as well. To estimate capacity, each loop (inverted-U) was counted as one “structure” that could fit two bikes. In Figure 2 below, the stand-alone inverted-Us on the left are the new standard OSMP uses that allow two bikes to attach to each structure (with four structures allowing for eight bikes to park in this example). Capacity on the “wave” bike rack on the right can vary based on how bikes park. For purposes of this study each inverted-U portion of the “wave” was also assumed to fit two bikes, so the structure in the photo below would fit six bikes. For all locations that did not have bike racks at the time of the study, the estimated bike capacity was listed as one, as bikes were included in the count if they were parked in the area but not attached to a bike rack (e.g., they were attached to a post or a tree).

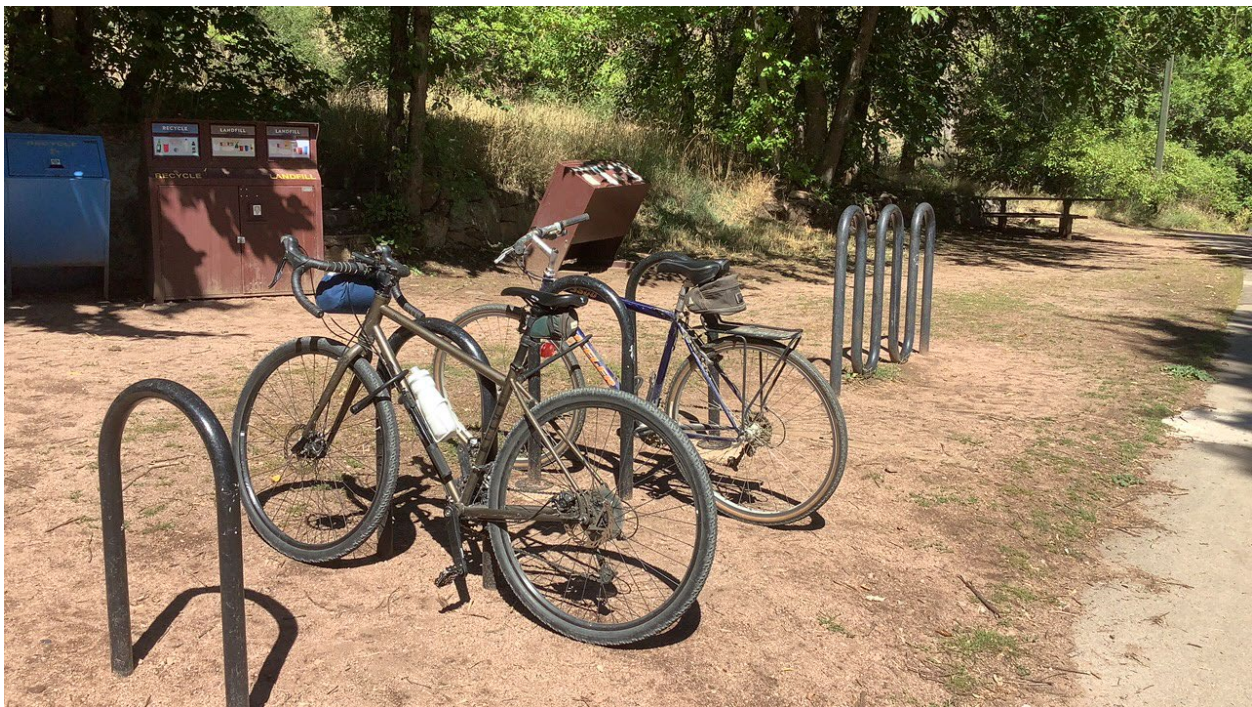


Figure 2. Two primary types of bike racks at OSMP locations.



Table 1 shows the locations included in the study, if they are a trailhead or access point, the estimated number of vehicle and bike parking spaces included for purposes of the study, and the number of picnic tables included.

Table 1. Names and characteristics of locations included in the study.

<b>Location</b>	<b>Location Type</b>	<b>Estimated Vehicle Capacity</b>	<b>Estimated Bike Capacity</b>	<b>Number of Picnic Tables</b>
Bobolink	Trailhead	22	12	1
Boulder Valley Ranch	Trailhead	14	8	0
Buckingham Park	Trailhead	24	6	3
Centennial	Trailhead	30	6	2
Chapman Drive	Trailhead	15	6	0
Chautauqua	Trailhead	48	38	0
Cherryvale	Trailhead	17	6	0
Cottonwood	Trailhead	15	8	0
Cragmoor Connector	Access Point	20	1	0
Crown Rock	Trailhead	6	6	1
Doudy Draw	Trailhead	41	6	0
Dry Creek	Trailhead	17	6	1
East Boulder Trail at Boulderado and Cambridge	Access Point	77	6	0
East Boulder Trail at Boulderado and Durham	Access Point	45	1	0
East Boulder Trail White Rocks	Trailhead	9	4	0
Eagle	Trailhead	23	4	0
Enchanted Mesa	Trailhead	8	4	2
Flagstaff Nature Center	Trailhead	35	6	2
Flagstaff Summit East	Trailhead	12	1	4
Flagstaff Summit Rd Lower	Access Point	10	1	0
Flagstaff Summit Rd Pull-Offs	Access Point	16	1	0
Flagstaff Summit West	Trailhead	16	1	48
Flatirons Vista	Trailhead	29	6	0
Foothills	Trailhead	22	6	0
Foothills at Second and Denver	Access Point	20	1	0
Foothills at Second and Dakota Blvd	Access Point	9	6	0
Fourmile Canyon Creek	Trailhead	36	6	0
Fowler at CR67	Access Point	31	1	0
Greenbelt Plateau	Trailhead	18	6	0
Gregory Canyon	Trailhead	37	14	0
Halfway House	Trailhead	11	4	1
Joder Ranch	Trailhead	8	6	0
Left Hand	Trailhead	36	4	0
Lion's Lair at Sunshine Canyon	Access Point	9	1	0

<b>Location</b>	<b>Location Type</b>	<b>Estimated Vehicle Capacity</b>	<b>Estimated Bike Capacity</b>	<b>Number of Picnic Tables</b>
Lion's Lair Spur	Access Point	7	1	0
Lost Gulch	Trailhead	24	4	3
Marshall Mesa	Trailhead	28	6	3
Mt Sanitas Trail at Sunshine Rd	Access Point	0	8	2
North Fork Shanahan at Lehigh	Access Point	0	4	0
Panorama Point	Trailhead	14	4	3
Realization Point	Trailhead	16	6	2
Sanitas Valley South at Sunshine Rd	Access Point	0	8	0
Sawhill Ponds	Trailhead	19	6	6
South Boulder Creek at Marshall Rd	Access Point	31	4	0
South Boulder Creek West	Trailhead	29	6	2
South Mesa	Trailhead	52	12	7
Teller Farm North	Trailhead	41	6	0
Teller Farm South	Trailhead	32	6	2
The Peoples' Crossing	Trailhead	26	14	3
Wonderland Lake	Trailhead	19	6	0

## 3 Results and Applications

### 3.1 Vehicle Parking

The most consistent way to compare trailhead parking utilization rates was to focus on the number of spaces available for a “standard” vehicle to park inside the formal trailhead, knowing there are exceptions at many locations. While formal trailhead parking was the primary focus on the study, spillover parking was recorded most frequently at Boulder Valley Ranch, Dry Creek, and The Peoples’ Crossing. It was excluded at some key locations such as Chautauqua and Centennial for feasibility of data collection. Table 2 shows all OSMF trailheads, the max number of vehicles observed in the defined areas (inside and sometimes outside the formal trailhead), average percent occupancy overall, by day type (weekday/weekend), and time of day (AM/Mid-day/PM). The highest relative average percent occupancies are highlighted in orange, mid-range occupancies are highlighted in green, and the lowest occupancies are highlighted in blue.

Table 2. Average trailhead parking percent occupancy overall, by day type (weekday/weekend), and time of day (AM/Mid-day/PM). Locations with an asterisk most frequently incorporated vehicles parked in the areas surrounding the formal trailhead.

Location	Estimated Vehicle Capacity	Max Vehicles in Area	Average Overall Occupancy (%)	Weekday (%)	Weekend (%)	AM (%)	Mid-Day (%)	PM (%)
Dry Creek*	17	49	94	88	100	165	59	53
Chautauqua	48	49	94	92	98	92	98	94
Centennial	30	33	83	77	90	90	90	70
The Peoples' Crossing*	26	42	81	62	96	46	108	85
Enchanted Mesa	8	9	75	75	75	88	75	75
South Mesa	52	55	60	38	79	75	60	42
Flatirons Vista	29	53	59	38	79	72	62	45
Bobolink	22	23	50	50	55	50	59	50
Boulder Valley Ranch*	14	21	50	43	57	71	50	29
Crown Rock	6	6	50	50	50	17	67	67
Realization Point	16	17	50	38	69	44	75	44
Gregory Canyon	37	35	49	35	59	49	59	35
Wonderland Lake	19	19	47	47	47	53	42	47
Buckingham Park	24	26	42	29	54	13	50	58
Marshall Mesa	28	31	39	32	50	61	32	29

Location	Estimated Vehicle Capacity	Max Vehicles in Area	Average Overall Occupancy (%)	Weekday (%)	Weekend (%)	AM (%)	Mid-Day (%)	PM (%)
Doudy Draw	41	45	39	17	61	61	39	20
Flagstaff Summit East	12	14	33	25	50	25	42	50
Sawhill Ponds	19	15	32	26	37	26	42	37
Fourmile Canyon Creek	36	33	31	28	36	31	42	25
Panorama Point	14	11	29	21	36	7	36	36
South Boulder Creek West	29	30	28	14	38	45	21	14
Chapman Drive	15	16	27	20	33	20	33	27
Cottonwood	15	10	27	27	27	33	27	13
Eagle	23	16	26	22	30	39	26	17
Joder Ranch	8	9	25	13	38	38	25	13
Greenbelt Plateau	18	18	22	11	33	33	22	17
Teller Farm North	41	27	22	17	24	37	17	15
Flagstaff Nature Center	35	23	20	14	29	3	34	26
Foothills	22	20	18	14	18	18	18	14
Halfway House	11	11	18	9	27	9	9	36
Lost Gulch	24	13	17	17	21	4	25	29
Teller Farm South	32	25	16	19	16	25	13	9
Left Hand	36	26	14	8	17	19	14	6
Flagstaff Summit West	16	12	13	13	13	6	13	19
Cherryvale	17	5	6	6	6	12	6	6
East Boulder Trail White Rocks	9	1	0	0	0	0	0	0

In parking management, a parking area may be considered “effectively full” when it reaches 85% of its capacity, which is when a visitor may have a harder time finding a parking space (Shoup, 2021). The results for how frequently each trailhead was observed at or above this effective capacity are provided in Figure 3.

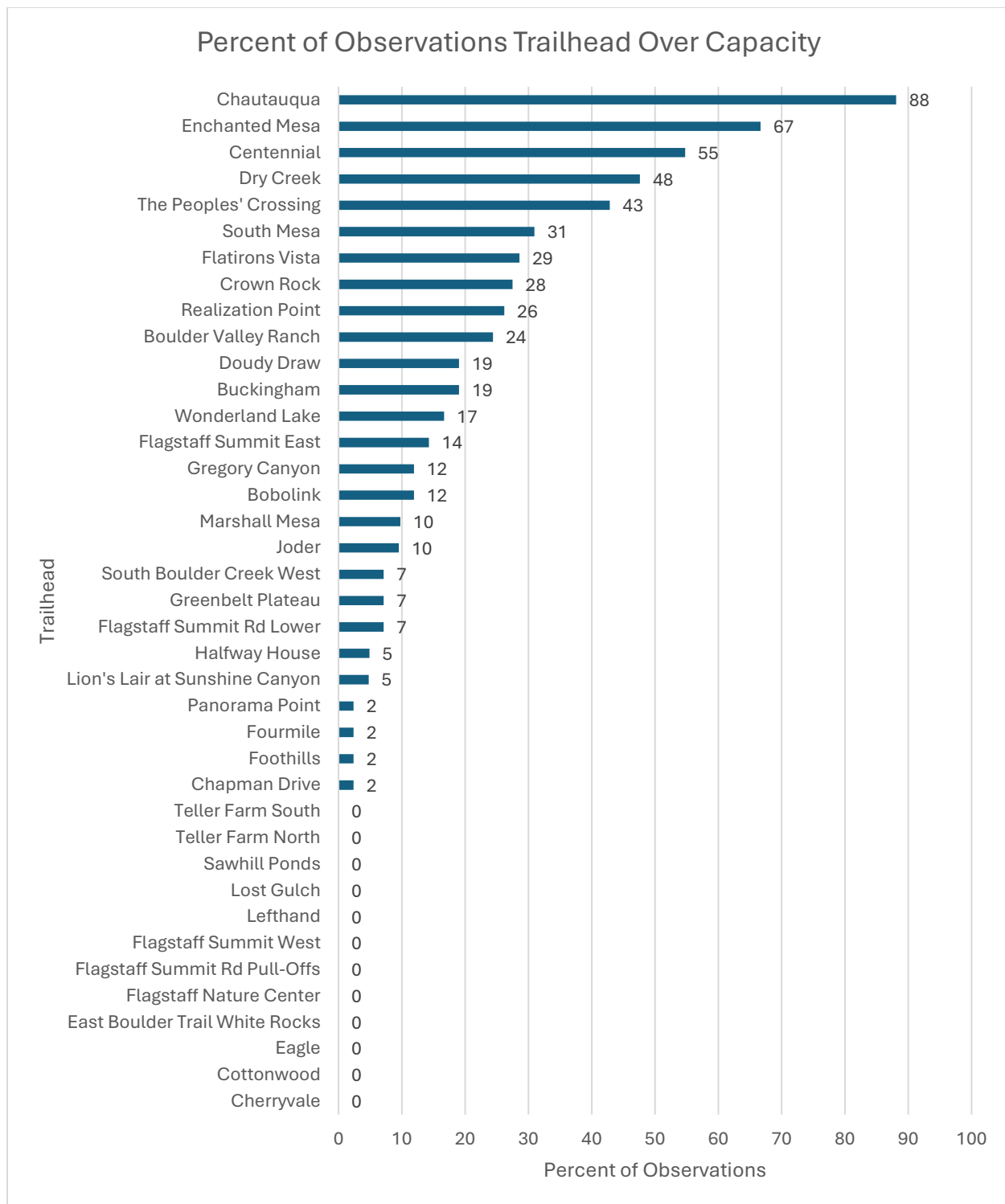


Figure 3. Percent of observations when the trailhead was over capacity (number of vehicles in the area was at or over 85% occupancy).



### 3.1.1 High Demand: Chautauqua

Using this guidance, the Ranger Cottage parking area at Chautauqua was considered effectively full when 40 of 48 parking spots were taken (85% of 48, rounded down to exclude partial vehicles). At Chautauqua this occurred on 37 of 42 observations (88%). This lot was frequently at 100% capacity (Figure 4), and vehicles additionally frequently park in areas surrounding this lot such as around the green and along Baseline.

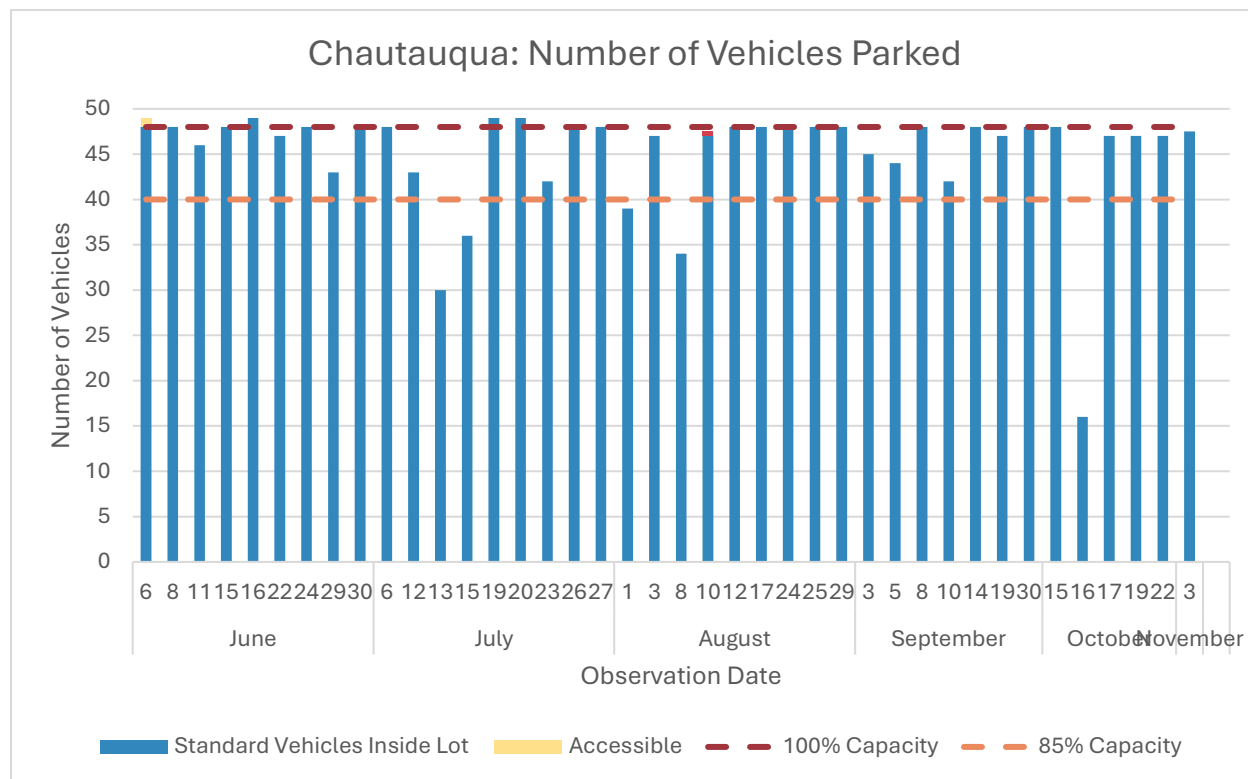


Figure 4. Number of vehicles observed at Chautauqua.

#### Applications

- Dedicated parking studies have been conducted in the Chautauqua area that included assessments in the Chautauqua campus and the nearby neighborhood.
- A free park-to-park shuttle is in place seasonally on holidays and weekends to support access to the trail system. A summary of the Chautauqua Access Management Program (CAMP) evaluation can be found in the [Open Space Board of Trustees packet dated September 13, 2023](#).
- A trailhead camera was installed with a view of the parking area so visitors can be informed of the parking conditions and allow them to better plan their trip.

### 3.1.2 Exceeding Capacity: Dry Creek

At select locations, a separate count of vehicles parked outside of the formal trailhead lot was also included. These were most frequently recorded at Dry Creek (up to 17 vehicles observed immediately outside the lot, with an additional 12 along Baseline Road), The Peoples' Crossing (up to 16 vehicles), and Boulder Valley Ranch (up to six vehicles). Figure 5 below shows vehicles exceeding the intended capacity of the formal trailhead parking area at Dry Creek. We can gain additional insights by filtering by different variables. For example, at Dry Creek the trailhead, including spillover vehicles, was effectively at capacity 48% of observations. If we just look at the observations conducted in the morning period (7:00 am to 10:00 am), the effective capacity was exceeded on 93% of observations.

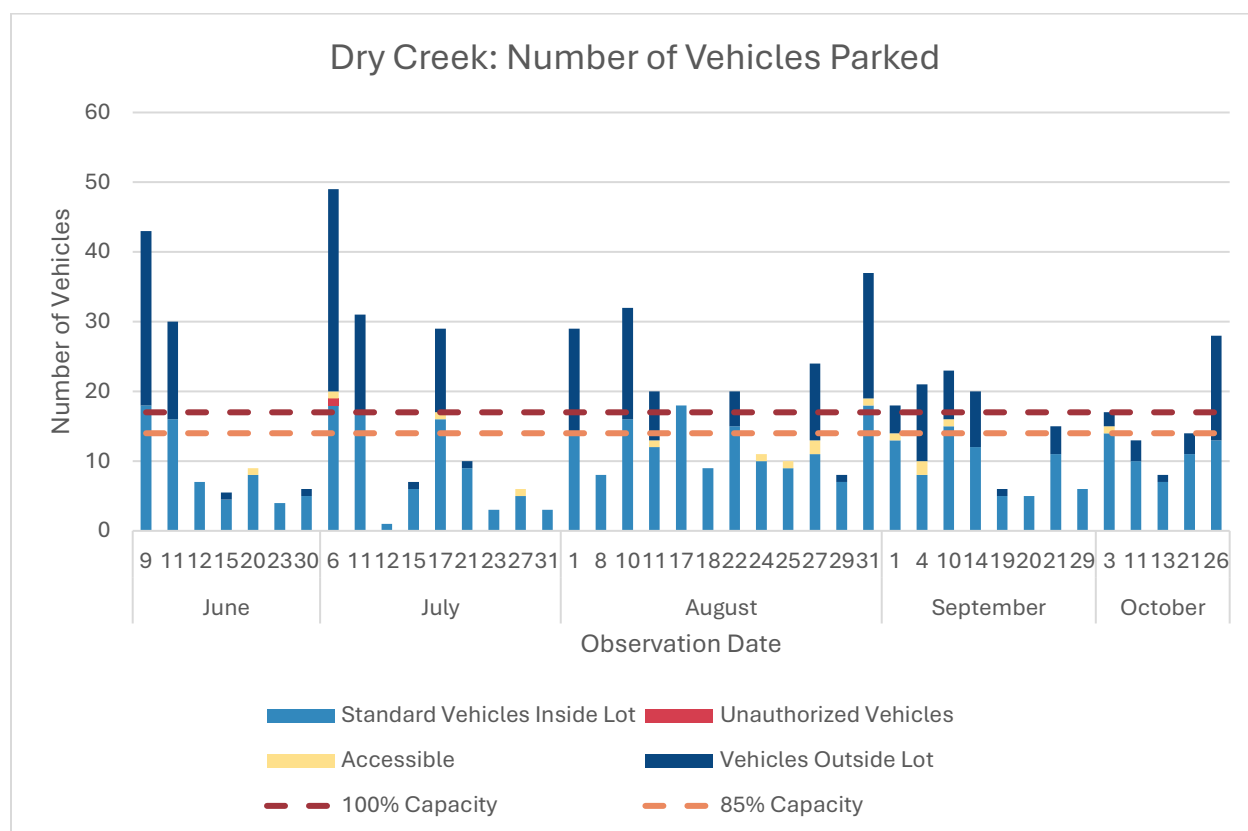


Figure 5. Number of vehicles observed at Dry Creek.

#### Application

- A new trailhead is currently in development for Dry Creek that will provide additional parking spaces to support demand while balancing ecology, visitor experience, safety, and cost.

### 3.1.3 Horse Trailers: Various Locations

Horse trailers were observed at Eagle, Flatirons Vista, Joder Ranch, Left Hand, Marshall Mesa, South Boulder Creek West, Teller Farm North, and Teller Farm South during the study period. Horse trailers were most frequently observed at Douady Draw, at four out of 42 observations (10%).

#### Application

- Douady Draw was redesigned in 2022 to better accommodate horse trail parking. Flatirons Vista, Joder Ranch, Marshall Mesa, and Teller Farm North are all either in the process of being redesigned, or it is planned in the future. In some cases minor adjustments can be made within the existing footprint to improve the parking experience. In others a larger scale effort is warranted that is part of a larger process to assess and balance impacts.

### 3.1.4 Unauthorized Parking: Flatirons Vista

Unauthorized parking, or standard vehicles parked in front of no-parking signs or in horse-trailer areas, were most frequently observed at Flatirons Vista with up to 22 vehicles observed (primarily parked in the horse trailer only area; Figure 6).

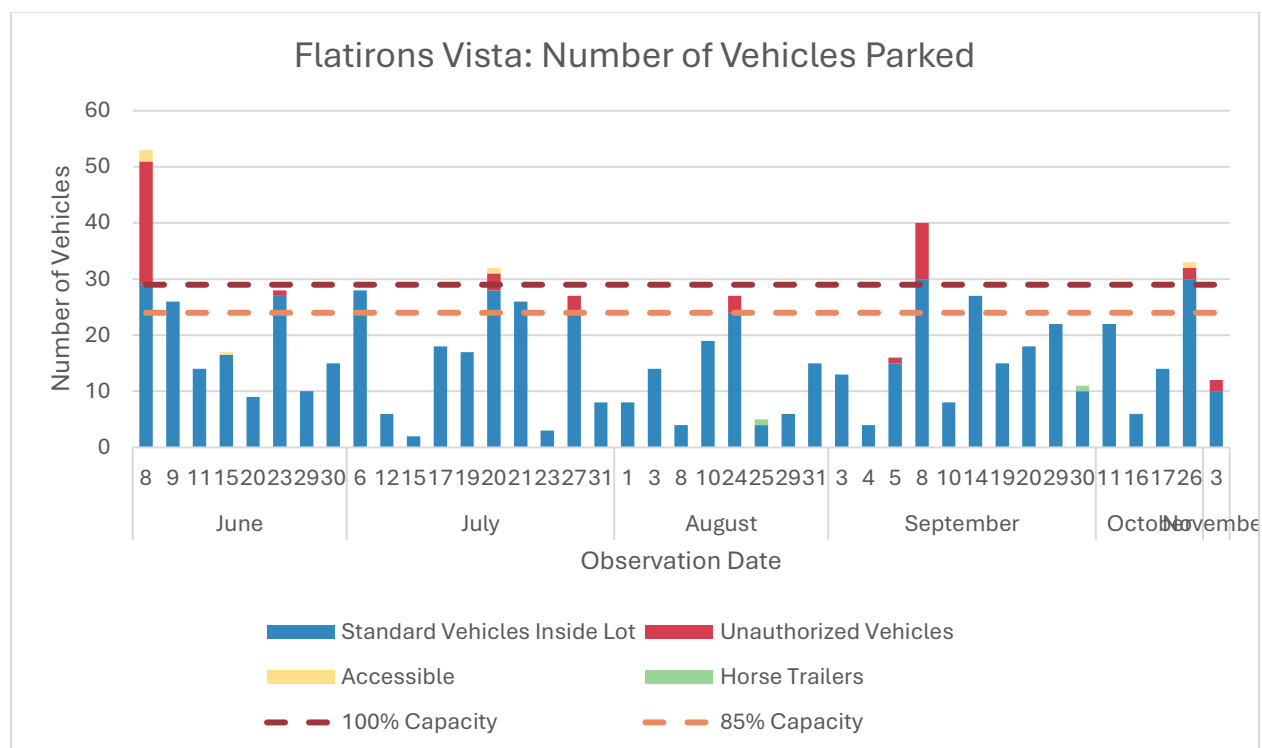


Figure 6. Number of vehicles observed at Flatirons Vista.

## **Applications**

- The Flatirons Vista trailhead is being reconfigured in the near future to provide additional parking spaces, and a separate area for horse trailers that requires passing through a gate to enter.
- In many cases the Flatirons Vista parking area may be full, but space is available at Greenbelt Plateau which is located nearby and connects to the same trail system. Trailhead cameras were installed at both locations this year, and may help visitors decide which trailhead to head to.

### **3.1.5 Lower Demand Locations**

There are clearly locations that are in high demand, and the parking lots are frequently at capacity, such as the Chautauqua and Sanitas areas. There are many other locations where utilization is comparatively low, and the parking lots were never observed at capacity, including East Boulder Trail White Rocks and Cherryvale.

#### **Application**

- People choose which trails to visit based on a variety of factors, including the type of experience they seek (such as scenic views, incline, solitude, or shade), regulations (such as whether bikes or dogs are allowed), proximity (close to home, convenient access), and facilities (restrooms, available parking, bike racks). A recreation opportunities study is currently in development to better understand desired visitor experiences and their relation to the range of services OSMP provides.
- In this case there may be opportunities to shift visitation to lower use areas to reduce congestion at higher use areas. For example, in cases where visitor goals may be achieved at alternative locations, or the same trail system can be reached by a less utilized location. Trailhead cameras can help visitors plan their trips, and perhaps choose a less congested location.

### **3.1.6 Vehicle Parking Trends**

The 2019-2020 study focused on vehicles parked in formal OSMP trailhead lots where OSMP manages the parking. If we compare those same figures with formal trailhead parking in 2024, the average number of vehicles parked has remained fairly consistent over time (Figure 7), despite some trailhead changes and modified data collection methods. The largest difference was at Buckingham Park which had an average of 4 vehicles parked in 2019-2020 and 10 vehicles in 2024. This location may be more heavily impacted by seasonal use, and as a result more sensitive to the modified data collection months, but could be worth a closer look. Trail counter and vehicle counter data may also provide additional insight into trends.

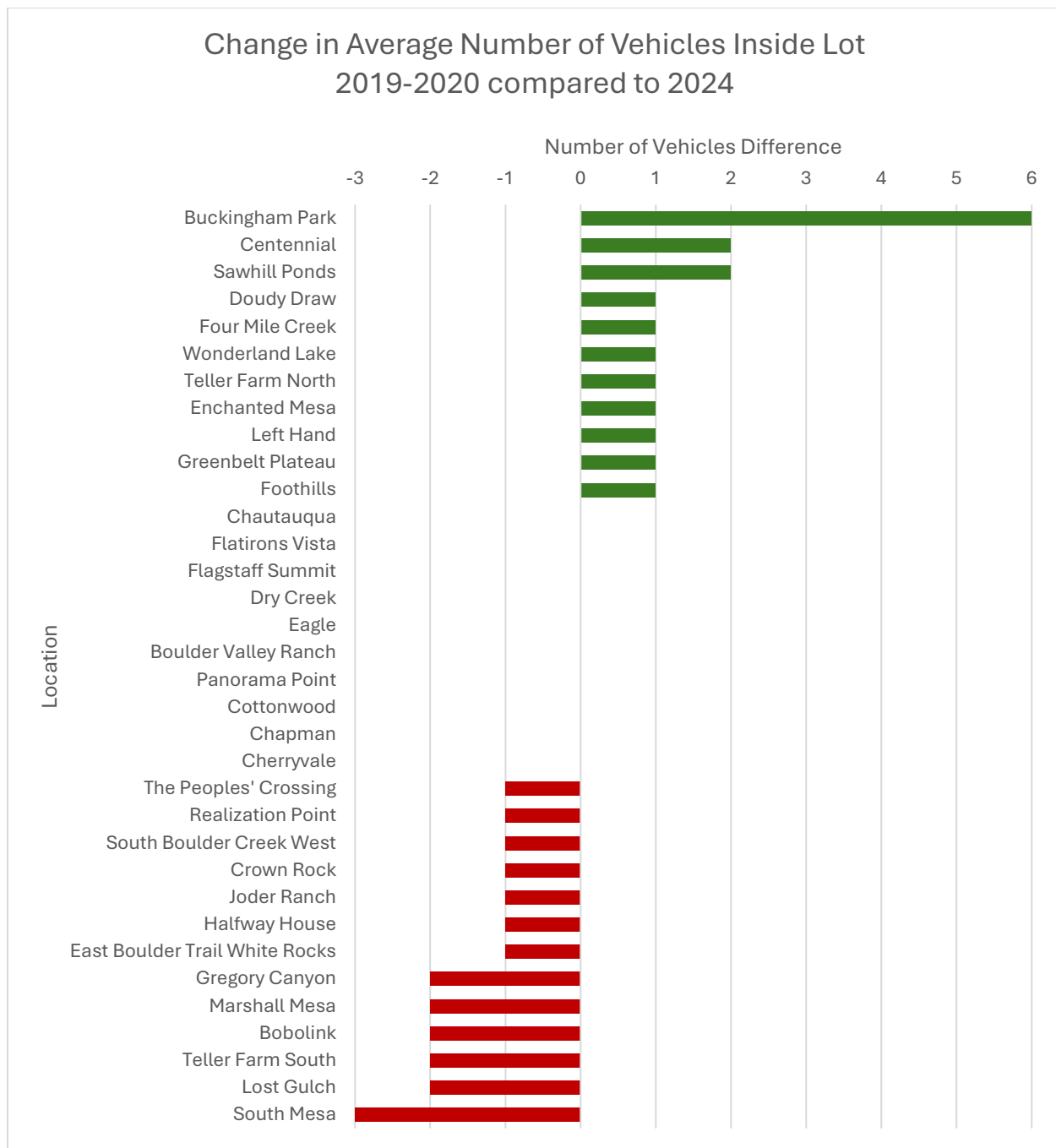


Figure 7. The number of vehicles parked inside formal trailhead parking areas in 2024 compared to 2019-2020.

### 3.2 Bike Parking

Bike parking was used less frequently compared to vehicle parking, but there were still some notable locations (Table 3). Bikes were most frequently observed in the Chautauqua and Sanitas areas, which also tend to have higher visitation and vehicle congestion.



## Application

- People may be more willing to bike to a location if they know vehicle parking may be challenging. Many bike racks have been or are planned to be installed or upgraded in many locations since this study. Future bike rack installations may focus in areas with higher vehicle congestion.

Table 3. Average bike parking percent occupancy and number of bikes parked.

Location	Estimated Capacity	Max Number of Bikes	Average Number of Bikes	Average Percent Occupancy	Percent of Observations with Bikes Present
Chautauqua	38	28	3.5	9.1	83%
Sanitas Valley South at Sunshine Rd	8	4	0.8	10.4	52%
The Peoples' Crossing	14	3	0.7	4.9	38%
Gregory Canyon	14	3	0.6	4.3	36%
North Fork Shanahan at Lehigh	4	5	0.4	10.7	26%
Centennial	6	3	0.3	5.2	19%
South Mesa	12	2	0.2	2.0	17%
Cragmoor Connector	1	1	0.1	14.3	14%
Fourmile Canyon Creek	6	3	0.2	4.0	14%
Bobolink	12	2	0.1	1.2	12%
Foothills	6	1	0.1	2.0	12%
Mt Sanitas Trail at Sunshine Rd	8	2	0.1	1.8	12%
Buckingham Park	6	1	0.1	1.6	10%
Chapman Drive	6	2	0.1	2.0	10%
Cottonwood	8	2	0.1	1.5	7%
Enchanted Mesa	4	3	0.1	3.6	7%
Foothills at Second and Denver	1	2	0.1	9.5	7%
Marshall Mesa	6	2	0.1	1.7	7%
Wonderland Lake	6	2	0.1	1.6	7%
Doudy Draw	6	2	0.1	1.2	5%
Eagle	4	2	0.1	1.8	5%
South Boulder Creek at Marshall Rd	4	2	0.1	1.8	5%
Flagstaff Summit West	1	1	0	2.5	2%
Flatirons Vista	6	1	0	0.4	2%
Foothills at Second and Dakota Blvd	6	2	0	0.8	2%
Greenbelt Plateau	6	1	0	0.4	2%
Realization Point	6	1	0	0.4	2%
South Boulder Creek West	6	1	0	0.4	2%
Teller Farm South	6	14	0.3	5.7	2%

Location	Estimated Capacity	Max Number of Bikes	Average Number of Bikes	Average Percent Occupancy	Percent of Observations with Bikes Present
Boulder Valley Ranch	8	0	0	0	0%
Cherryvale	6	0	0	0	0%
Crown Rock	6	0	0	0	0%
Dry Creek	6	0	0	0	0%
East Boulder Trail at Boulderado and Cambridge	6	0	0	0	0%
East Boulder Trail at Boulderado and Durham	1	0	0	0	0%
East Boulder Trail White Rocks	4	0	0	0	0%
Flagstaff Nature Center	6	0	0	0	0%
Flagstaff Summit East	1	0	0	0	0%
Flagstaff Summit Rd Lower	1	0	0	0	0%
Flagstaff Summit Rd Pull-Offs	1	0	0	0	0%
Fowler at CR67	1	0	0	0	0%
Halfway House	4	0	0	0	0%
Joder Ranch	6	0	0	0	0%
Left Hand	4	0	0	0	0%
Lion's Lair at Sunshine Canyon	1	0	0	0	0%
Lion's Lair Spur	1	0	0	0	0%
Lost Gulch	4	0	0	0	0%
Panorama Point	4	0	0	0	0%
Sawhill Ponds	6	0	0	0	0%
Teller Farm North	6	0	0	0	0%

### 3.2.1 Peak Use

The highest number of bikes were observed on two occasions: during an evening event at Chautauqua (Figure 8, Figure 9, Figure 10), and for a kids organized bike group at Teller Farm South (Figure 11).

#### Application

- Future site planning may also consider accommodating bike use during events, and focus on ensuring safe multi-use paths are available. The new Marshall Mesa trailhead is incorporating a gathering area and bike repair station that should be conducive to biking events.



Figure 8. A full bike rack observed at Chautauqua during an event.



Figure 9. A partially full bike rack at Chautauqua during an event with scooters parked nearby.





Figure 10. Bikes attached to posts at Chautauqua during an event.



Figure 11. A biking event at Teller Farm South.

### 3.2.2 Unattached bikes

Unattached bikes could be an indication of demand for bike racks. Outside of events at Chautauqua and Teller Farm South, these were most frequently observed in the Shanahan area, North Sky area, Buckingham Park, and Gregory Canyon.

#### **Application**

- Bike racks have been or are planned to be installed in the Shanahan and North Sky areas. They are already present at Gregory Canyon and Buckingham Park, but perhaps could be updated or relocated. For example, at Gregory Canyon bikes were occasionally observed at the bottom of the steep hill leading up to the trailhead

where the bike racks are located. North Sky was opened during the study period and could warrant future assessment.

### 3.2.3 Bike rack styles and locations

Bike racks in the Sanitas area provide an example of how use varies by visibility and convenience. Bike racks were most recently installed at the Sanitas Valley South at Sunshine Road access point, which are highly visible, the standard inverted “U” design, and located on the eastern side closer to where most visitors are coming from. Bikes were observed here on 52% of observations, compared to 12% and 19% of observations at Mt Sanitas Trail at Sunshine Road and Centennial respectively. The bike racks at both locations are less visible, the less preferred “wave” design, and located further west on Sunshine Canyon Drive which may feel less safe to get to.

E-bikes were most frequently observed at Chautauqua at 15 out of 42 observations (36%), followed by Sanitas Valley South at Sunshine Rd (6 out of 42 observations; 14%) and The Peoples’ Crossing (5 out of 42 observations; 12%). Extended bikes (e.g., tandem, cargo, or bikes with a trailer) were most frequently observed at Chautauqua at 5 out of 42 observations (12%).

#### **Application**

- Future bike rack installs could ensure they are installed in highly visible locations, the standard inverted “U” design that can better accommodate different bike types, and with safe access.

## 3.3 Picnic Tables

Similarly to bike racks, the highest picnic table use was observed during an event (a wedding at Flagstaff Summit West). Outside of that event, the most consistent use was at rest or viewpoint areas: Buckingham Park, Flagstaff Summit West, The Peoples’ Crossing, Centennial, Lost Gulch, and Panorama Point (Table 4). They may be most valued at scenic locations where picnicking is a primary purpose of the visit, for events such as weddings, a place to wait for other members of a group, or to relax after using the trail.

#### **Applications**

- Picnic tables are a relatively low-cost amenity that can improve visitor experiences, provide a durable surface to wait for other members of a group, and make trailheads more welcoming and accessible. Although current use is relatively low, nearly all locations had a table occupied at least once during the study period (out of about 42 observations).
- Future picnic table placement could be prioritized in scenic areas (near viewpoints or water), fishing areas, locations that can be reserved for events, and at locations that tend to have higher group sizes.



Table 4. Average number of picnic tables used.

Location	Number of Picnic Tables	Max Picnic Tables Occupied	Average Picnic Tables Occupied	Percent of Observations with Occupied Table
Buckingham Park	3	3	0.6	40%
Flagstaff Summit West	48	32	1.7	38%
The Peoples' Crossing	3	3	0.5	33%
Centennial	2	1	0.3	31%
Lost Gulch	3	1	0.3	29%
Bobolink	1	1	0.2	21%
Panorama Point	3	2	0.3	21%
South Mesa	7	2	0.2	19%
Sawhill Ponds	6	3	0.2	17%
Enchanted Mesa	2	2	0.2	14%
Realization Point	2	1	0.1	12%
Flagstaff Nature Center	2	2	0.1	10%
Flagstaff Summit East	4	1	0.1	10%
Mt Sanitas Trail at Sunshine Rd	2	1	0.1	10%
Halfway House	1	1	0.1	7%
Marshall Mesa	3	1	0.1	5%
Crown Rock	1	1	0	3%
Dry Creek	1	1	0	2%
South Boulder Creek West	2	1	0	2%
Teller Farm South	2	0	0	0%

## 4 Additional Sources and Next Steps

Data from this report is also summarized in an interactive data explorer where you can see data spatially and filter by different variables: [2024 Trailhead Utilization PowerBI Report](#). Visitation data and trends can be further explored in the [2021 – 2023 Visitation Estimate Report PDF](#) (Leslie, 2024). Perceptions of crowding, visitor arrival modes, and other visitor data can be explored in the [2021–2023 Public Opinion and Visitor Experience Survey \(POVES\) Report PDF](#) (VanderWoude et al., 2024) and [2021-2023 POVES Explorer](#).

Additional data will be compiled and analyzed with respect to [City of Boulder’s Citywide Strategic Plan 2024 – 2026](#), which commits to reducing vehicle miles traveled and greenhouse gas emissions, including encouraging multi-modal options to access open space areas (City of Boulder, 2024). Supplemental data sources include parking data collected by Community Vitality, the [2025 City of Boulder Transportation Report on Progress](#), as well as Lime and B-Cycle.

Recently installed [trailhead cameras](#) provide an opportunity for staff to better understand trailhead utilization, and for people to plan out their visit knowing what parking conditions look like beforehand. Continued monitoring should be targeted at high-demand and new locations as priorities, capacity, and funding allow to measure impacts and assess trends.

## 5 References

City of Boulder. (2024). City of Boulder Citywide Strategic Plan 2024-2026. Link: [Citywide Strategic Plan](#)

City of Boulder. (2025). 2025 City of Boulder Transportation Report on Progress. Link: [2025 City of Boulder Transportation Report on Progress](#)

Leslie, C. (2024). 2021-2023 Visitation Estimate: City of Boulder Open Space and Mountain Parks. City of Boulder Open Space and Mountain Parks Department. Link: [2021 - 2023 Visitation Estimate](#)

Reed, A. 2019-2020 Parking Study Report. (2022). City of Boulder Open Space and Mountain Parks Department. Link: [2019-2020 Parking Study Report](#)

Shoup, D. (2021). High Cost of Free Parking (1<sup>st</sup> ed.). Routledge.  
<https://doi.org/10.4324/9781351179539>

VanderWoude, D., Seidel, H., Leslie, C., and Reed, A. (2024). City of Boulder Open Space and Mountain Parks 2021-2023 Public Opinion and Visitor Experience Survey Report. City of Boulder Open Space and Mountain Parks Department. Link: [2021-2023 Public Opinion and Visitor Experience Survey Report](#)