



2024 Trail Counter Program Report

Program Overview

Data collection shows strong use in our 10th year.

In the summer of 2024, RCR placed and monitored 24 trail counters in the Emerald Mountain, Buffalo Pass, Spring Creek and Core Trail areas. Of these, 18 were infrared (captures most movement) and 6 were magnetic (captures mountain bikes - or the occasional swinging trail tool). Counters process data on the quantity of users throughout the season and provide valuable information to land management partners, helping make decisions related to focus areas and priorities. The counter program is funded by the the City of Steamboat in partnership with Routt County Riders. Counters have been placed starting in 2014, installed on a rolling basis as trail inventory increases and our usage patterns require new or updated monitoring.



Important note:

Natural challenges exist within this system, including counter malfunctions, occasional vandalism, and data inconsistencies. These are mentioned when possible.



2024 Impact snapshot

24

Counters monitored on USFS, BLM, and CoSS land

2,500+

Average number of users per day across all trails*

200

Average number of cyclists per day on trails with MTB counters*

*Based on Average Daily Traffic



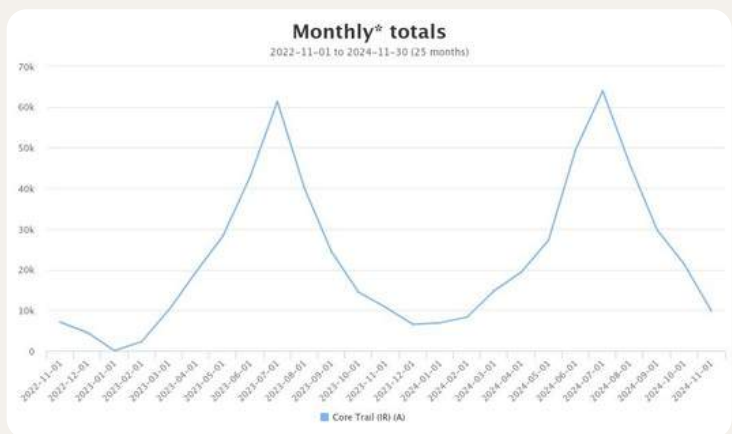
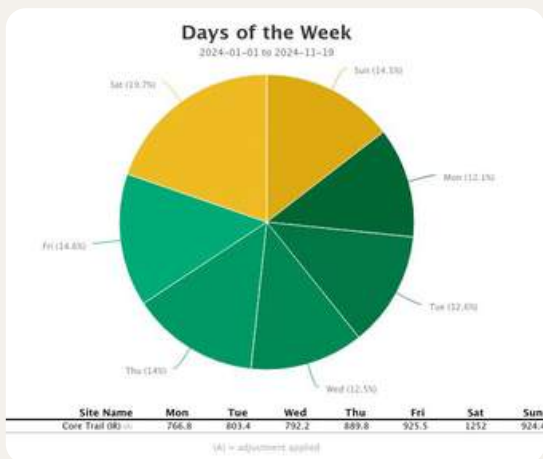
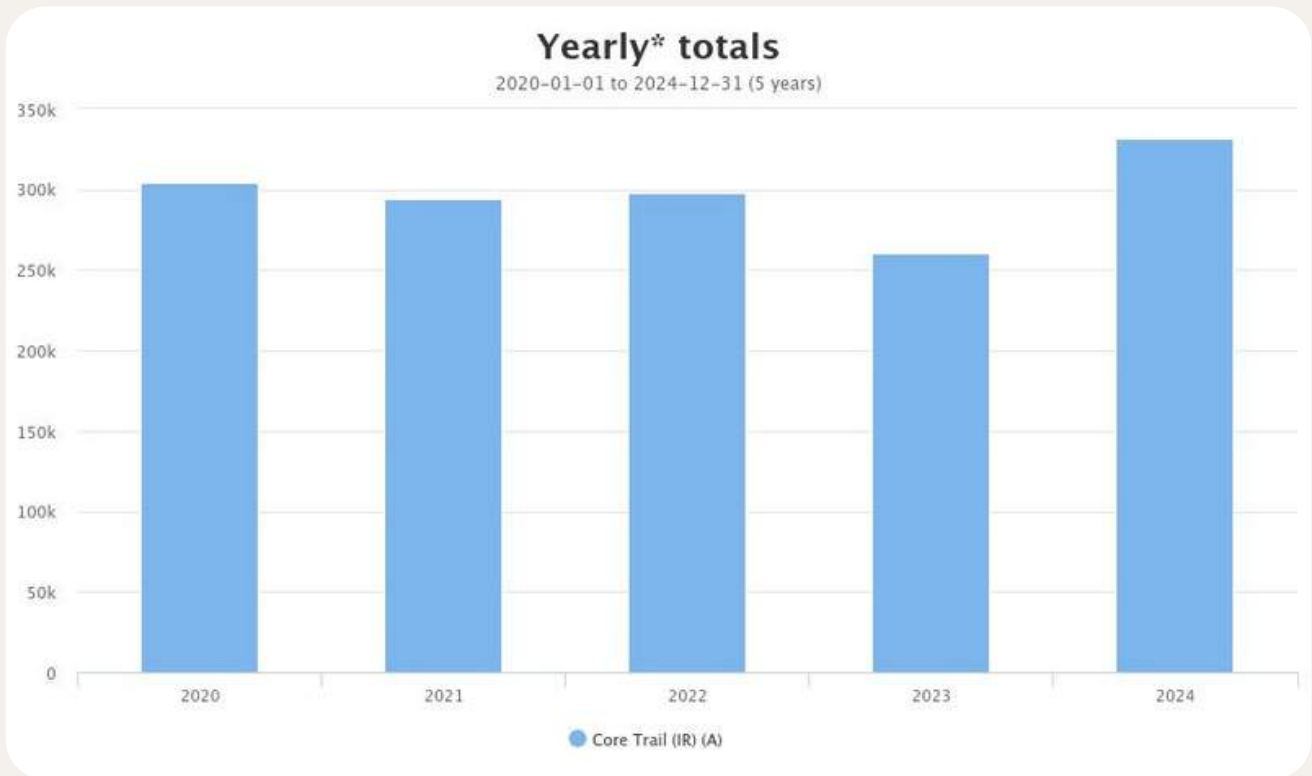
Core Trail

at Little Toots Park

330,000

uses in 2024

The Core Trail saw a significant increase in use in 2024 compared to the last four years, with an average of 1,000 users every day for an approximate total count of 331,387 users from the beginning of the year to mid-November, surpassing previous usage record set in 2020.



The Core Trail remains popular all days of the week in 2024, with an increased usage on weekends, particularly Saturdays.

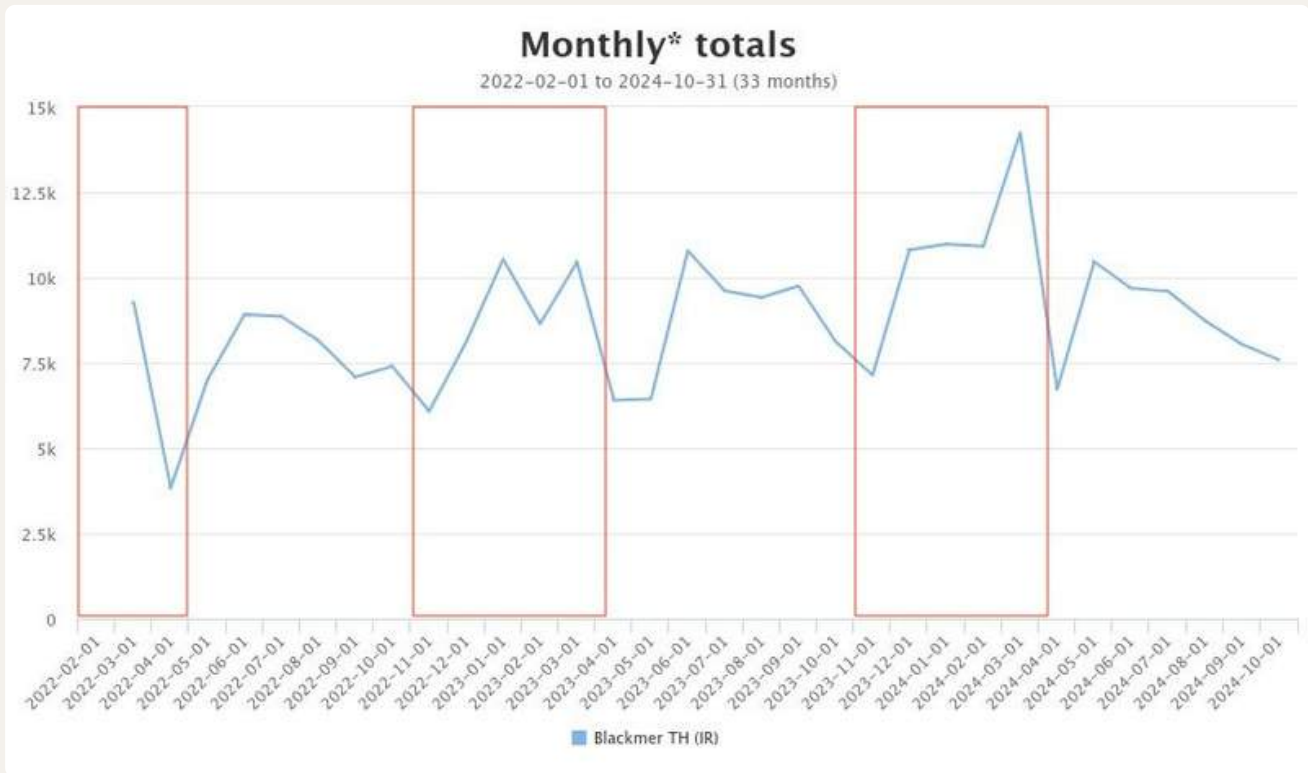
June, July, and August were the most popular months for use of the Core Trail through Little Toots Park. Winter use in the 23/24 season shows a noticeable increase from 22/23.



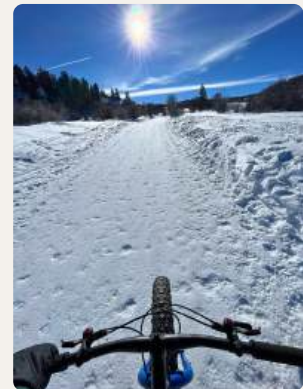
Blackmer Trailhead

Evidence of increased winter usage

The Blackmer trail counter experienced vandalism in 2024. Twice it was found either blocked (May 2024) or buried in the snow (October 2024), rendering multiple weeks of missing or excluded data. In November, the counter location was moved closer to the Blackmer trailhead and a permanent post was erected with a lock box to house the Blackmer trail counter. We are hoping this will help with more consistent data in future seasons.



The Blackmer trail counter has been installed since March of 2022, giving us a perspective of winter use vs. summer use. Though there are some inexplicable spikes in the above graph, the general trend from year to year shows a slightly higher usage rate during the winter months (in red boxes, Nov-Apr) than the summer months. However, it can be assumed that those using the Blackmer Trail in winter are also returning the same way, leading these users to be counted twice and therefore boosting the number of users in the winter. We are hoping that the counter’s new location will capture those returning to their vehicles and we can divide each day’s counts in half to reflect the two-way travel.



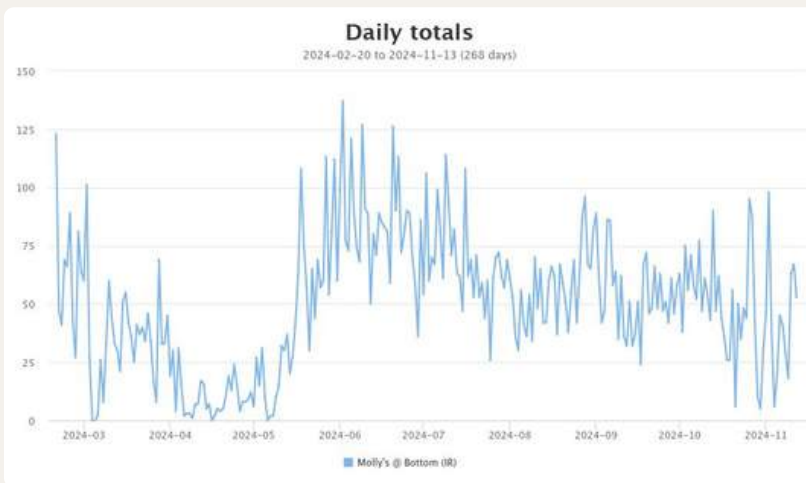
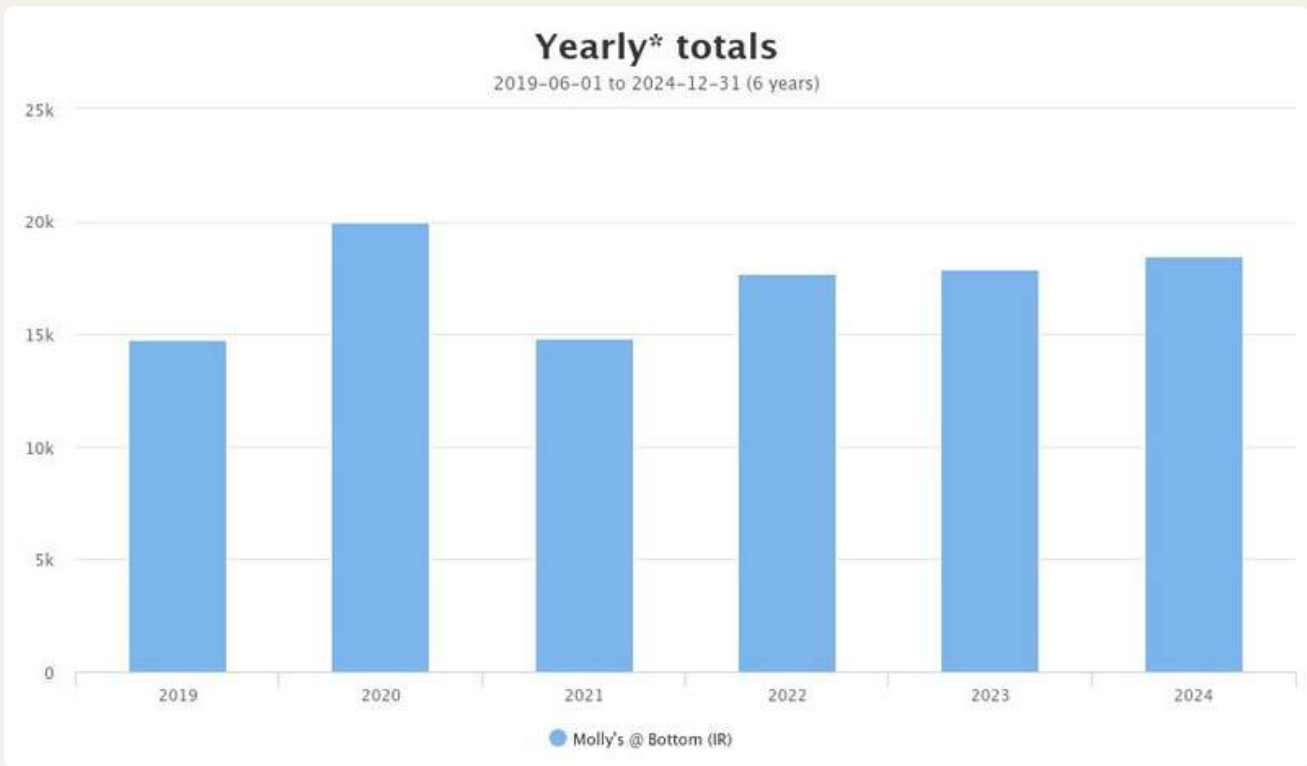
Despite missing chunks of data from this season due to vandalism, the Average Daily Totals for Blackmer Trailhead in 2024 are similar to previous years’ traffic. The summer use also follows a very similar trend as the previous three years with a very similar number of users.



Molly's Trailhead

Continuing to follow an upward trend

in 2024, Molly's was at its peak popularity since 2020. The winter of 2023/2024 was the first time Molly's was used as a year-round counter. However, daily data totals show no data from November 2023 to mid-February 2024, suggesting that something happened to the trail counter in this time period, though our technicians can only speculate. Removing this data still suggests that Molly's is at its peak popularity and that usage continues to rise. Molly's increase in popularity could be attributed to being a popular egress route to the Fairview neighborhood, while continuing to be a staple of local area dog-walkers and bikers going in both directions.

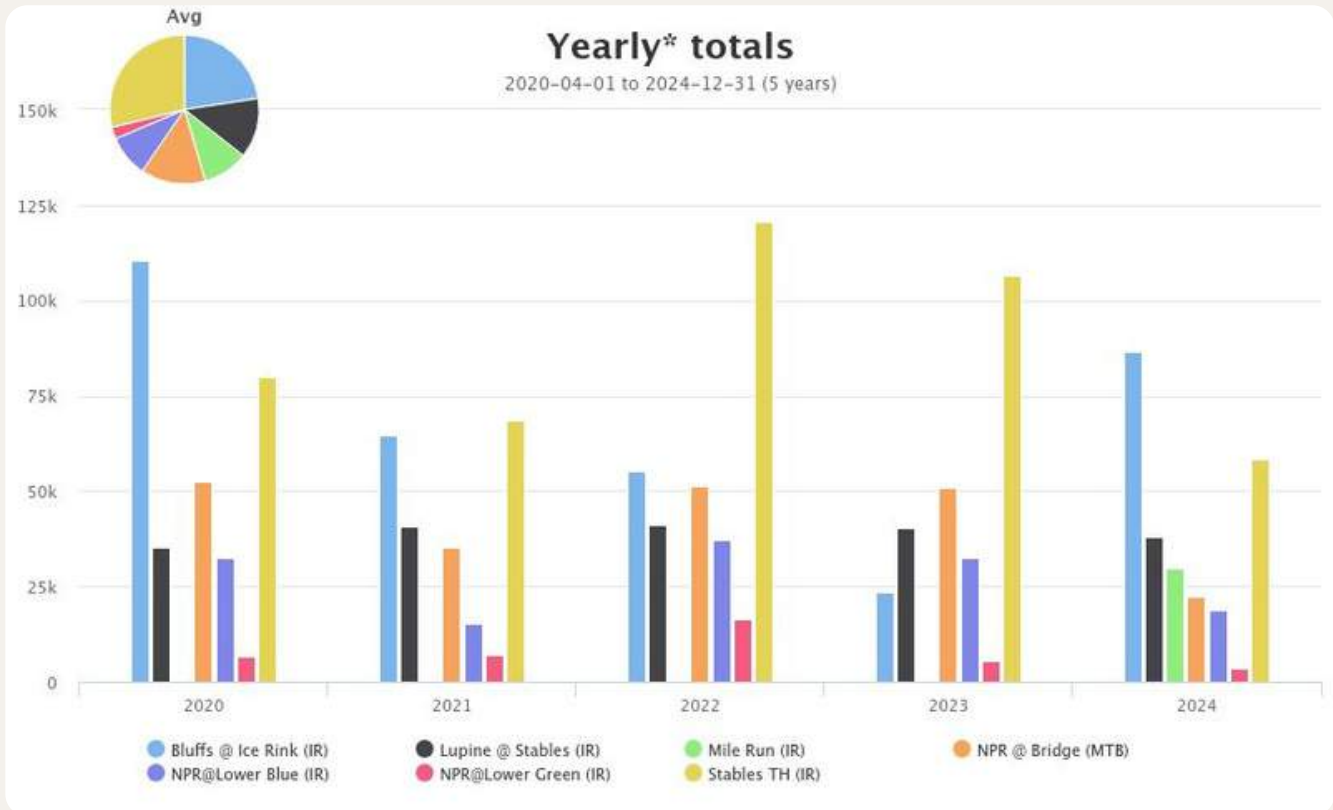


The Daily totals graph (left) shows the flow of traffic by each day throughout the recorded months of 2024 (February-November). This trail rarely sees zero traffic, indicating the importance of the trailhead to local Fairview residents and Emerald access.

This graph is based on actual counts of movement, not an average.



Frontside of Emerald



Trails

Trend

Bluffs Trail

Bluffs Trail saw a large increase in traffic this year, but this can possibly be attributed to the hosting of local race events. Outside of these two spikes, daily usage patterns look similar to the previous seasons' data.

Lupine Trail

Lupine Trail shows similar usage to previous years - around 104 users per day with peak traffic in June.

Stables Trailhead

Stables Trail reported less traffic than normal, but follows the same daily use trends as previous seasons, with a large jump in early September (also possibly attributed to local race events).

Mile Run

Mile Run counter was intended to replace Robbie's Cut counter this year due to the ongoing issues with that location. We will have more to report on this new location in future reports.



NPR

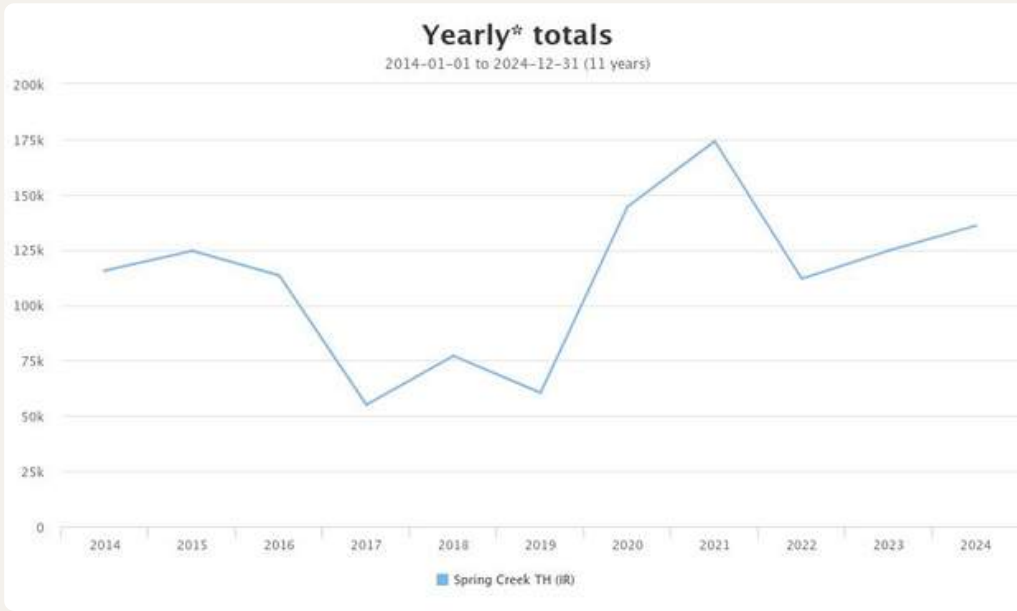
All parts of NPR followed the same trend in 2024, with Upper NPR getting the most use followed by Lower NPR Blue and then Lower NPR Green being used the least. The usage decrease of nearly 50% is interesting and can possibly be attributed to late summer trail conditions, making it less appealing to ride.



Spring Creek Trailhead

1,139

Peak number of users in a day since 2014
September 13th, 2024



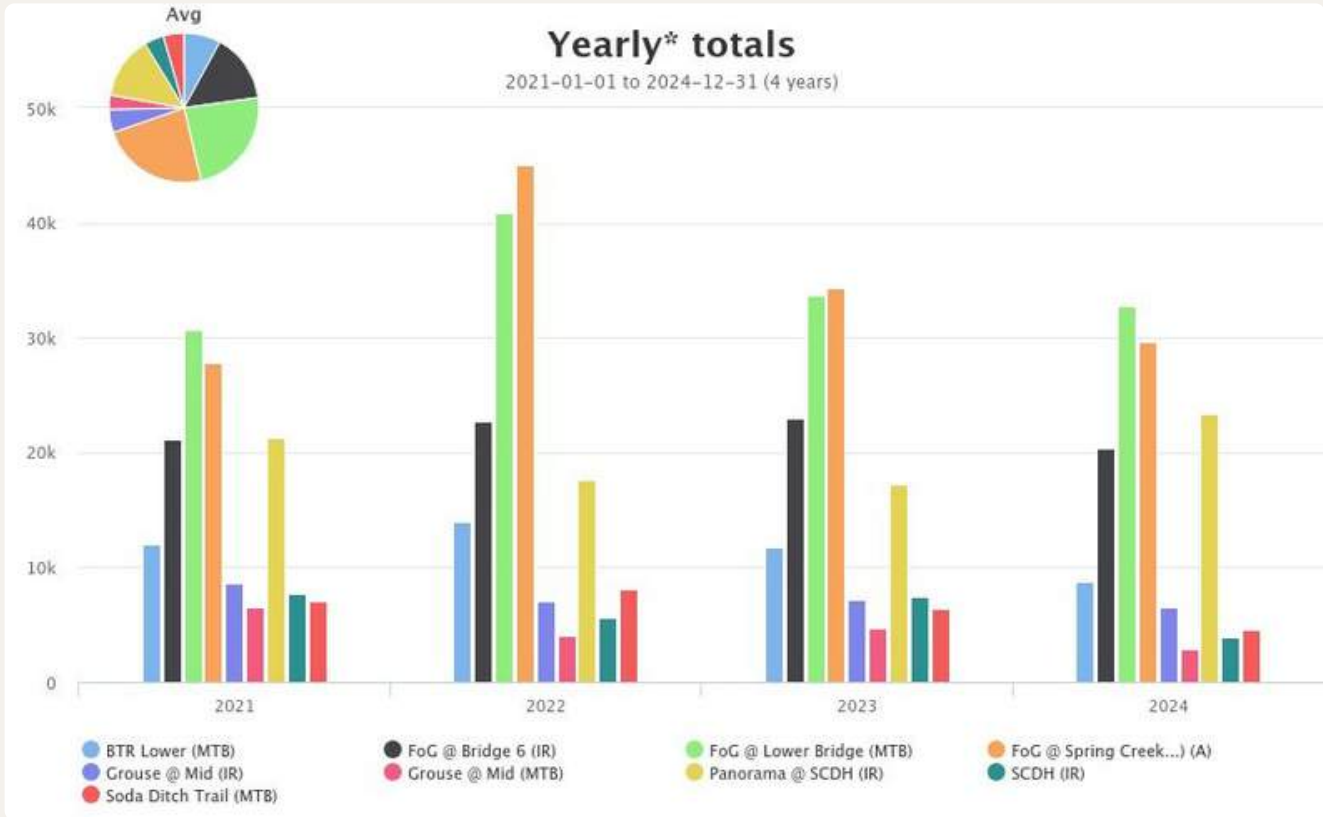
Spring Creek Trailhead has been one of the longest monitored trail counters in this program. A quick glance at the yearly totals shows a continued upward trend after 2022.

For years with consistent winter data (2022-2024), it is interesting to note a pattern of a spike in use in March of each year (below).





Buffalo Pass



Trails

Trend

Flash of Gold

Saw a general decreased usage this year compared to previous 3 years, although mountain biking traffic remained similar at the Lower Bridge

Grouse

Usage on Grouse for hikers and bikers was much lower than in previous years. This could be due to the counters being installed later than normal in the season, skewing the ADT.

Panorama

Important to note that the Panorama counter was removed mid-August and replaced mid-September. ADT numbers with this timeline removed show much higher traffic this season on Panorama, specifically in early July, with another spike at the end of September.

Spring Creek Downhill

Spring Creek Downhill had a much lower number of users than compared to years past.

BTR

BTR saw a lower rate of use by mountain bikes this year compared to the previous four years.

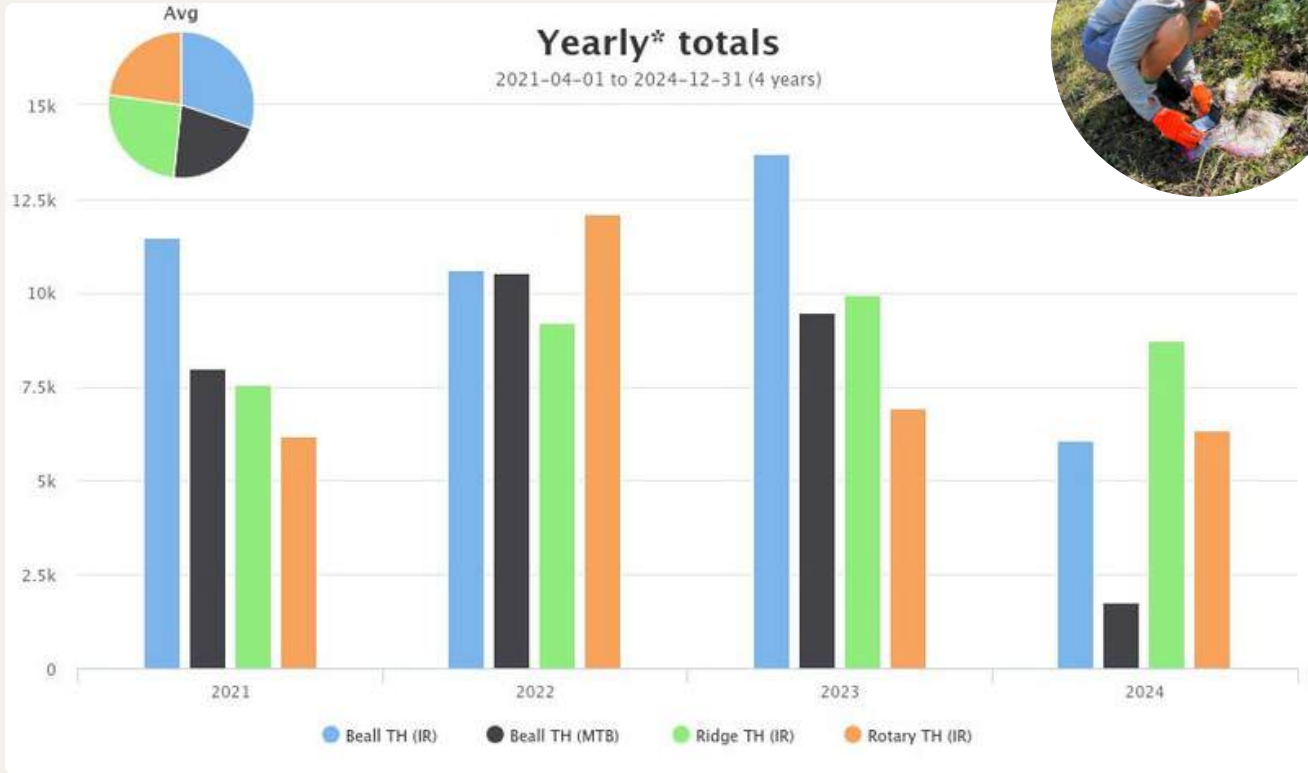
Soda Ditch

Soda Ditch also saw less traffic from mountain bikes this year compared to the last four years.





Backside of Emerald



Trails

Trend

Beall Trail (IR)

Beall Trail saw a significant decrease (nearly 44%) in use from 2023. This counter was placed later in the season than usual, but monthly ADTs show minimal use over August, September and October as compared to the previous three seasons.

Beall Trail (MTB)

The decreased usage trend on Beall was replicated in the MTB counter as well. Record lows for this counter show an ADT count of <5, whereas previous years are well over 20 counts per day.

Rotary Trailhead

Rotary Trail saw similar numbers to previous years, with the exception of October, which showed only 46 total counts as compared to over 300 counts in previous years. We speculate that the first snow in October made Rotary inaccessible compared to previous years.

Ridge Trailhead

Ridge Trail traffic was on par to the previous three seasons, with the exception of July and August, which show significantly higher traffic in 2024. The month of October also shows much lower usage, again due to weather.

Notes on Data Collection

We use two types of counter out in the forest, one is an infrared sensor that picks up movement from pretty much anything in front of the sensor - this is hikers, elk, bikers, an errant tree branch that falls in front and swings lazily, etc. Our magnetic counters are meant to capture the metal of each bike that passes but will not pick up hikers, elk, and whatnot. The infrared sensors are used more broadly to capture all trail use, and magnetic counters are deployed on some bike-specific trails and to accompany an infrared if we have the stock of counters to do it concurrently on one trail.

Data errors can occur for myriad reasons, not limited to -

- **A dead battery that halts data collection until the counter gets a visit**
- **Swinging branches, elk, and anything not human-related passing in front of a sensor repeatedly**
- **People using the trail in side-by-side will typically only be picked up as 1 user by a sensor**
- **Delay and spacing - we set a 'delay' to reset the counter after a person passes by. If two hikers or riders are following each other in very quick succession, sometimes that second person (or anyone following rapidly) will not be counted.**

Outside of errors, we are limited in counter placement by the unpredictability of the seasons in Northwest CO. Sometimes it will take a while to be able to gain access on higher-elevation Buff Pass trails in the spring, and then an early October snow will halt our program as our Counter Tech makes her rounds picking up the units before winter. This year we transitioned managers for this program, which had the potential to lead to data inconsistencies due to new responsibilities and timeline discrepancies.

Please email lucy@routtcountyridders.org with any questions regarding our Trail Counter Program.



RCR thanks the City of Steamboat Springs for continuing to fund this program and aid in its success.



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