

INCREASE THE POWER OF TRAIL COUNTS

As discussed in the evaluating existing demand section of this document, Salt Lake City has been maintaining trail count data throughout its networks since 2016. This document recommends continuing to use the systems in place, but leveraging and utilizing that data through new partnerships, big data resources, and community surveys.

Permanent vs. Mobile Counters:

With approximately 16 counters in place, the City should ensure that several counters stay fixed to locations where counts have proven to be reliable and use is known to be 'typical' for the Foothills. Over time, these permanent counters will provide important baseline information regarding system use patterns, growth, and relative demands through the system. Historically, the consistent counter locations have been the Mouth of Dry Creek, Emigration Canyon TH, Ensign, and I Street TH.

Once permanent counter locations are determined, a series of additional counters should be deployed on a rotating basis to analyze use levels throughout the system. Temporary counters can help understand the efficacy of various land closures, impacts of a trail reroute, or gather data where none was available prior.

Increase Depth with Manual Counts and Community Surveys:

The data available from a perfect trail counter system will never tell us why some people don't feel comfortable or welcome using the Foothills. It will be important for Public Lands to conduct trailhead demographic surveys to understand who uses the trail networks, and which demographics or geographies in Salt Lake City are under-represented at the trailhead. Similarly, targeted community surveys to groups who are not well represented in current trail user demographics can help the City understand barriers to access to the Foothills.

| Trail Count System Comparison | | | | |
|-------------------------------|---------------|--|--|--|
| Technology | Relative Cost | Pros | Cons | Examples |
| Manual Counts | \$-\$\$ | Can determine precise use types, demographics, or specific details like QR code usage. | Cost-prohibitive if not using volunteers. Labor-intensive to coordinate and report out. | counterpointapp.org/ |
| Infrared Counters | \$\$ | Relatively inexpensive 24/7 costs. Proven technology and relatively simple to operate | Can not distinguish between use types, often require monthly 'data pulls', limited to one location per unit. | www.TrafX.com |
| Video Detecting Systems | \$\$\$\$ | Can offer 24/7 counts and distinguish between bikes and pedestrians | Can require additional expertise to operate, often requires subscription to service for processing. | https://miovision.com/scout |
| Big Data | \$-\$\$\$\$ | Can offer a 'global' view of use | Not representative of all users, can be very costly. | https://metro.strava.com/ https://www.placer.ai/ |

Key: lower cost = \$ higher cost = \$\$\$\$

Increase Breadth with Big Data:

Additional insights can be gained by correlating physical trail count data with the broad coverage offered by big data sources. From the free (to municipalities) resource of Strava Metro, to more expensive but broad reaching datasets like Placer AI, Many platforms available can offer a chance to see beyond the individual counts. It is worth noting that big datasets will not capture ALL trail users, but they represent a specific percentage across the entirety of the Foothills network.

Increase Power with Universities:

It is time consuming enough to procure trail counters, deploy them, pull data from them, and aggregate the data - to say nothing of the time needed to analyze one or more datasets and assemble useful insights.

Partnerships with regional universities may offer a solution to this workload challenge, as there are many degrees at local institutions that could benefit from a partnership with the City. Analyzing big datasets, developing trail count dashboards, or delivering and analyzing community intercept surveys are just a few of the ideas that could become a classroom or thesis project.