



EXECUTIVE SUMMARY

In spring 2009, following the opening of the Spring Brook Loop Trail (SBL), and one year later (2010), the City of Boulder Open Space and Mountain Parks Department (OSMP) conducted observational monitoring to evaluate visitor compliance with on-trail and dog regulation requirements. Visitor compliance levels were compared to ranges of acceptability developed by OSMP with community input. After the first year of monitoring, OSMP met with community groups to discuss adaptive management responses for activities outside of acceptable ranges of compliance. Informational signs advising visitors of monitoring results and reiterating desired goals for compliance were posted as the preferred adaptive response. OSMP observed visitor parties on only a portion of the SBL, therefore compliance rates reported below refer only to compliance for a portion of the visitor party's trip.

Compliance Results

- On-trail compliance
 - Cyclists maintained an acceptable level of compliance (>95%) with on-trail travel requirements in both 2009 and 2010.
 - In both 2009 and 2010, the proportion of equestrian and “dog & guardian” parties fell below the acceptable range of 95-100% on-trail compliance.
- Dog-regulation compliance:
 - In both 2009 and 2010, compliance with on-leash requirements were below the 90-100% range of acceptability. Fewer than 60% of observed “dog & guardian” parties complied with requirements to keep dogs on leash and on trail.
 - In both years, compliance with regulations prohibiting dogs from a section of SBL was also below the 90-100% range of acceptability.

Other Results

- Observed visitor parties
 - In both 2009 and 2010, most observed visitor parties (nearly 70%) were cyclists.
 - Pedestrian parties (i.e., hikers and runners) accounted for about 30% of observed parties.
 - Equestrians represented fewer than 2% of observed parties.
- Pedestrian on-trail rates:

Although no on-trail requirements existed for pedestrians, about 75-80% of pedestrian parties remained on-trail.
- Reasons for leaving the trail

In general, the most commonly perceived reason for leaving the trail was yielding off trail to other visitors. Avoiding muddy or wet trail conditions was the second most common reason for cycling and running parties to travel off trail. Visitors, including dogs, leaving the trail to yield or avoid muddy conditions were never considered out of compliance with the on-trail requirement.

- Distances traveled off trail: Most (approximately 86%) off-trail visitor parties remained within 10 feet of the trail edge in both 2009 and 2010. Fewer than 70% of off-trail dog parties observed remained within 10 feet of the trail edge in both years. However, travel beyond 10 feet from the trail edge primarily occurred when off-trail dogs were also off leash.

Management Considerations and Recommendations

Staff developed the following recommendations to improve compliance with SBL on-trail and dog regulations:

On-trail compliance

General:

- Since the majority of off-trail observations were associated with travel required to responsibly share the trail, some degree of off-trail travel near the trail edge can be expected when single-track trails are constructed.

SBL Specific:

- Reduce evidence of past noncompliance (e.g., off-trail tracks, secondary trails) that may prompt additional off-trail travel. This could be accomplished by:
 - Maintaining well-drained trail conditions,
 - Closing trails when muddy, and
 - Restoring or at least concealing newly developing undesignated trails.
- Communicate persuasive messages to encourage on-trail travel by:
 - Integrating Front Country Leave No Trace principles¹ into signs and other educational materials,
 - Increasing awareness of the negative consequences of off-trail travel,
 - Appealing to a visitor's sense of social responsibility for stewardship of open space, and
 - Encouraging peer groups to promote on-trail travel as what is expected and normal.

Dog regulation compliance

General:

- Support research aimed at understanding and changing the underlying beliefs that form the basis of dog-guardians' noncompliant behaviors.
- Continue to educate visitors about the negative consequences of off-leash dog travel not only on natural resources but also on dog safety and the experiences of other visitors.

SBL Specific:

- Consider prohibiting dog travel on the SBL.
- Consider modifying external factors:
 - Increase fines for noncompliance;
 - Increase the potential for personal contact with
 - rangers,
 - volunteer stewards,
 - specially-trained peer group of dog-patrollers modeling behavior and communicating reasons to keep dogs in compliance with SBL rules
 - Develop persuasive messages about dog compliance using multiple message sources and types.

¹ Leave No Trace practices are available at: <http://www.lnt.org/programs/principles.php>

Importance of a system-wide approach to improving on-trail and dog regulation compliance on OSMP lands.

While the results in this report highlight the need for specific management responses at SBL, the results and responses may also be placed in the context of the larger OSMP land system, where off-leash dogs and off-trail travel can negatively affect visitor experiences, resource protection, and OSMP staff and financial resources (National Research Center, 2010). Thus, OSMP should consider which management actions aimed at improving compliance with dog-control and travel requirements at SBL are likely to be more efficiently and profitably implemented at the system-wide scale.