

**City of Boulder
Open Space and Mountain Parks**

Voice and Sight Tag Program

Monitoring Protocol Summary

June 2014



City of Boulder
**OPEN SPACE &
MOUNTAIN PARKS**



BACKGROUND

Open Space and Mountain Parks (OSMP) began the Voice and Sight Tag (Tag) Program in the summer of 2006. The program's original goal was to increase compliance with voice and sight control laws and decrease the potential for dog-related conflicts. Monitoring was conducted before, one year after, and then again four years after the program's launch. The [Voice and Sight Tag Program Monitoring Report \(Dec. 2011\)](#) documents the results of the monitoring study.

The Boulder City Council approved changes to the Tag Program in May of 2014 to ensure that Boulder trails remain a safe and enjoyable destination for visitors and their dogs while also protecting natural resources and wildlife. The changes go into effect on January 1, 2015. Details about the program changes are available on the OSMP Website at www.voiceandsight.org.

Monitoring coinciding with the launch of the revised Tag Program will again be conducted before, shortly after and then again several years after implementing changes to the program. The monitoring methods have been revised after the completion of a review of the initial monitoring protocols by staff, public feedback, and recommendations from the Open Space Board of Trustees. The monitoring methods have been reviewed by external subject area experts including staff from the National Park Service and local dog training and behavior experts. A summary of changes is available in Appendix A.

Monitoring has been designed to inform staff, community members, and elected and appointed officials about how well changes to the Tag Program have achieved intended outcomes. The Tag Program monitoring consists of two components:

1. Compliance with voice and sight control regulations.
2. Interviews with guardians to determine if they have a leash.

Staff will also be monitoring aspects of dog regulations that are related to the Tag Program:

- Compliance with nonseasonal and seasonal on-leash trail regulations.

Monitoring will be implemented in the spring of 2014 prior to the implementation of the Tag Program changes. The Tag Program changes will be implemented January 1, 2015, and monitoring will be repeated in the spring of 2015. A third monitoring period is currently scheduled for 2018, approximately three years after implementation.

DATA COLLECTION

1. Observable Voice and Sight Regulation Compliance Components

Tag Program monitoring will document compliance with the observable aspects of the voice and sight control regulation. Data will be collected during field monitoring to describe visitor party¹ attributes, dog behaviors, guardian actions and responses and the behaviors of others (dogs,

¹ The phrase “dog-containing visitor party” is defined as any single or group of visitors with one or more dogs being managed under voice and sight control (off leash).

wildlife, humans, livestock) in the vicinity of the observed party. Compliance indicators that can be directly observed (such as a voice and sight tag is not displayed or more than two dogs are off leash per guardian) will be reported using collected field data. Compliance indicators that are subjective and contextual (such as disturbing wildlife or another visitor party) will be evaluated using descriptive field-collected data. The descriptive data collected for each visitor party will be analyzed and the context and chronological sequence of each party's recorded behaviors and interactions will be used to determine a compliance outcome. Because dog control is context-dependent and situational, each visitor party will be evaluated and interpreted using only the data collected for that party. A summary of the visitor party attributes and compliance measures are listed below. Additional details are available in Appendix B and C.

Visitor Attributes

Visitor Party Attributes

- Visitor parties with at least one dog off leash
- People per visitor party
- Dogs per visitor party
- Dog interactions by interaction type
- Dog responses by interaction type

Compliance Measures

Directly Observable Compliance Measures

- Dogs off leash without a Tag Program tag visibly displayed on the dog
- Dogs off leash with unknown tag display (observer unsure)
- Visitor parties with at least one dog out of the guardians' sight
- Visitor parties with more than two dogs off leash per guardian
- Visitor parties with one or more dogs that enter an off-trail area closed to visitor access such as a seasonal wildlife closure or a dogs-prohibited area

Evaluative Compliance Measures

The evaluative compliance measures will be used to determine the compliance outcome of each observed visitor party with the following components of voice and sight control:

- Guardians who fail to comply with the regulation prohibiting their dogs from charging, chasing or other displays of aggression toward a person.
- Guardians who fail to comply with the regulation prohibiting their dogs from chasing, harassing or disturbing livestock or wildlife.
- Guardians who fail to comply with the regulation prohibiting their dogs from charging, chasing or otherwise displaying aggression toward any dog.

Measures

- Number of dog behaviors by code
- Guardian responses by code
- Visitor parties who issue one or more commands to a dog²

²Issue a command means that the guardian signaled (including but not limited to vocalizations [words, whistles, whoops, etc.], clapping, or by making noises with their person or a device, or by motions, movements or positions of their person); **and** that the signal appeared to the observer to be communication intended to establish control of the

- Commands by command theme (e.g. stay, come, leave it)
- Dog responses by behavior code
- Wildlife/livestock responses by behavior code
- Other visitor party (dog and human) behaviors by code

2. Possessing a Leash for Voice and Sight Regulation Compliance

The monitoring will document compliance with the requirement that guardians have a leash for each dog under their control through visitor interviews. Guardians with one or more off-leash dogs will be asked to show that they are in possession of a leash for each dog.

Compliance Measure

- Visitor parties in possession of a leash for each off-leash dog in their party

3. Nonseasonal and Seasonal Leash Regulation Compliance

The monitoring will assess dog guardian compliance with seasonal and nonseasonal leash laws on designated trails. Compliance with these regulations is *not specific to the Tag Program*.

Compliance Measure

- Visitor parties with one or more dogs not on a hand-held leash

MONITORING SITES

The 2014-2018 site selection methods are modeled after and similar to the 2006-2010³ methods. Because the seasonal and nonseasonal leash required components were added, sites were added to account for seasonal and nonseasonal trails requiring that dogs be on leash.

Trail Site selection criteria

These criteria were used when selecting the best location along the trail for each monitoring site in the field (not all sites meet all criteria):

- Sight distance of at least 400 feet (Voice and Sight Component only)
- Audio distance of at least 400 feet (Voice and Sight Component only)
- Few visual obstructions on/along trail such as boulders, shrubs, trees, trail undulations or switchbacks
- Ease of access and available legal parking for field technician
- Location along trail continuum; need to represent various locations along the trail (trailhead, first quarter mile, interior)
- Recreation setting (combination of biophysical, managerial and social conditions along with infrastructure development); need to represent a range of recreation settings

dog. Intended to establish control means that the direction of movement of the guardian, tone of voice and/or rate of speech used by the guardian is more urgent, directive or stern from actions to gain attention rather than a relaxed or noncommanding or directing behavior or tone would be. Establishing control includes but is not limited to gaining the dog's attention and/or requiring the dog to stop or return to the guardian.

³ During 2006-2010 there were 31 total monitoring sites. Additional details for the 2006-2010 monitoring sites are available in the [2011 Voice and Sight Tag Monitoring Report](#).

- Existence of a potential challenge for dog management (water access, prairie dogs, livestock)
- Topographical setting; need to represent flats, hills, peak access, canyons
- Not within a Trailhead Leash area
- Underlain by OSMP owned and managed property (OSMP has enforcement responsibility).

Appendix A: Summary List of Monitoring Protocol Changes

1. Removed conflictive behaviors terminology (as documented in 2006-2010); revised behavior definitions to reflect the voice and sight ordinance language
2. Added a mid-day weekday monitoring period
3. Added a late afternoon/early evening weekend monitoring period
4. Added observation of leash-compliance in nonseasonal and seasonal leash-required areas
5. Added a summary of ranger observations, incidents, summons and convictions
6. Added additional voice and sight monitoring sites including very low to high volume locations along with sites located more interior on the OSMP system
7. Modified behavior coding strategy and behavior definitions
8. Added recording commands given along with dog/guardian responses
9. Moved 2006-2010 off-trail sites as needed to facilitate auditory monitoring of dog guardian commands
10. Added additional leash interview sites including very low to high volume locations along with sites located more interior on the OSMP system
11. Added “livestock” to potential off-trail challenge list for dogs list
12. Removed determination of “negative” or “positive” interactions in the field
13. Revised determination of overall compliance to be evaluation outcome for each visitor party to include interpretation of each visitor party’s chronologically collected attributes, interactions and commands given; determination of compliance *will not occur in the field* by the data collector, and *will be determined later in the office* by a team representing monitoring, project team and ranger staff
14. Added documentation of all dog interactions instead of recording only the first instance of the behavior. For example, if a dog jumps up on more than one other visitor party, the number of times this occurs will be recorded. Previously, the behavior was recorded once per party and subsequent observations of the same behavior for the same visitor party were not recorded.

Appendix B: Recorded Attributes of Dog Containing Visitor Parties

The observer will record the following attributes of the visitor party:

1. The field VP number
2. The number of people
3. The activity type of the people
4. The number of dogs
5. The number of visible leashes
6. The number of dogs that are leashed the entire time in the observation area.
7. The number of dogs that are unleashed for some time or the entire time in the observation area.
8. The number of dogs, whether leashed or unleashed, with and without a green voice and sight tag (VST) and the number of dogs for which no determination could be made regarding whether they were wearing a VST or not due to poor visibility and/or the characteristics of some dogs (e.g. dogs with shaggy coats or wearing a tag pouch).
9. All observed human, dog, wildlife and livestock interactions and behaviors listed in Appendix C. The observer will record any pertinent notes regarding the interaction or behavior observed in the “Notes” section of the datasheet. (e.g., if the observer notes that a dog was barking repeatedly, the observer will record his/her speculation regarding what the dog is barking at, or if a dog jumps on a visitor, the observer will record the guardians’ reaction to the incident.)
10. The number of dogs that are not within view of their guardians. Within view means the guardian can see the dog immediately or by turning his or her head. Tall vegetation, topography, and winding trails are possible reasons why a dog is not within view. The reason the dog is not within view should be noted in the “Notes” section of the datasheet.
11. The number of commands issued to the dog(s) in the party, the type of command, the words used by guardian if possible, the dog response. The guardian will be observed for all attempts to obtain control of the dog.
12. Whether or not the dog entered a visitor closure area
13. Ranger or other staff presence in the area
14. Whether or not there were more than two unleashed dogs per guardian in the visitor party.
15. Whether or not any observable injury resulted from any interaction.
16. Anything unusual about the observation or anything that helps explain data entered in specific columns of the datasheet about the observation.

Appendix C: Person, Dog and Wildlife/Livestock Lists of Observed Behaviors

PERSON BEHAVIOR	DEFINITION	EXAMPLES	RELEVANT B.R.C CODE
No behavior observed			N/A
Verbal invitation	Vocalizations (e.g. words, whistles, sounds etc.) directed towards the dog; “attention-getting;” could be initiated or response	Approaching visitor says "Oh my gosh, you are so cute. Come here!"	
Physical invitation	Hand and/or arm is extended away from the person’s body and towards the dog; “contact seeking;” could be initiated or response	Approaching visitor kneels down and extends arm toward oncoming dog	
Avoidance	Moving away, head/body averted, hands up palms out	Approaching visitor steps laterally away or off trail to avoid contact with oncoming dog	
Verbal protest	Verbal statements and/or noises accompanied by gestures (hands up palms out, shaking head, etc) directed towards dog and/or guardian expressing objection to dog presence and/or behavior	Approaching visitor says "Keep your dog away from me"	
Physical protest	Body movements directed towards getting dog to stop the behavior or for harming the dog	Approaching visitor kicks leg out to get dog away from his/her feet	
Other	Any other behavior observed		

DOG BEHAVIOR	DEFINITION	EXAMPLES	RELEVANT B.R.C CODE
No behavior observed			N/A
Jumping/pawing	PHYSICAL CONTACT REQUIRED; A jumping or pawing dog is one with movements between the moment the paws leave the floor until they are back in contact with the ground (front or all paws) with front paws working independently of each other. A pawing action corresponds to repeated backwards pulls toward the dog's belly and hind legs of a single paw	A dog jumps up and makes physical contact with another human; a dog paws a child's legs as he/she walks by	6-1-16. Dogs Running at Large Prohibited. 6-1-20. Aggressive Animals Prohibited. (Would need to be combined with a negative response from receiving party or a prohibited behavior to be considered violation)
Charging/chasing	A charging or chasing dog is one that incorporates gaits galloping and trotting resulting in forward motion of the dog and/or a "violent rush forward" with the head/body oriented toward "other" present; other present could be wildlife, livestock, person or dog	Dog chasing a fleeing deer or charging an approaching dog	6-1-16. Dogs Running at Large Prohibited. 6-1-20. Aggressive Animals Prohibited. 8-3-5. Wildlife Protection
Aggression display	An aggressive animal is one that bites, claws, or attempts to bite or claw any person; bites, injures, or attacks another animal; or in a vicious or terrorizing manner approaches any person or domestic animal in an apparent attitude of attack, whether or not the attack is consummated or capable of being consummated.	Frontal display with teeth and lips showing; Continuous vocalizations of low tones (growling); Attempts to make firm mouth contact or attempts to bite	6-1-16. Dogs Running at Large Prohibited. 6-1-20. Aggressive Animals Prohibited. 8-3-5. Wildlife Protection

ATTACHMENT A

DOG BEHAVIOR	DEFINITION	EXAMPLES	RELEVANT B.R.C CODE
Barking	Barking is vocalization of loud sounds. The head is often elevated and thrown forward at the moment of the bark; can be directed at other; “attention-getting;” elevated intensity or frequency	A dog is repeatedly barking at a bird on the side of the trail; dog is standing still on the trail continuously barking at an approaching visitor party	6-1-16. Dogs Running at Large Prohibited. 6-1-20. Aggressive Animals Prohibited. (Would need to be combined with a negative response from receiving party or a prohibited behavior to be considered violation) 8-3-5. Wildlife Protection

WILDLIFE AND LIVESTOCK BEHAVIOR	DEFINITION
No response	
Flee	Wildlife is observed fleeing/moving away; displaced from original location
Alert	Wildlife exhibits alert behaviors that may include vocalizations
Charge	Wildlife charges towards dog/visitor party