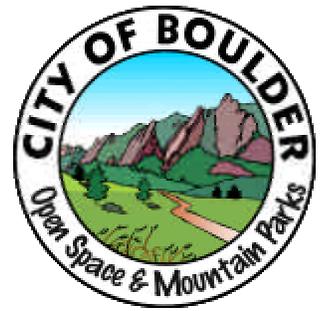


City of Boulder Open
Space and Mountain Parks



Compliance with Leave No Trace Frontcountry Principles

A preliminary examination of visitor
behavior



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An Preliminary Examination of Visitor Behavior

Purpose of this Study

To provide baseline information about rates of compliance with six desired behaviors for visitors to City of Boulder Open Space. These behaviors are referred to as the *Leave No Trace* (LNT) frontcountry principles (table 1). This study preceded an educational initiative aimed at raising awareness of these principles.

Table 1: Leave No Trace Frontcountry Principles

- Manage your dog
- Pick up after your dog
- Stick to the trail
- Leave it as you find it
- Trash your trash
- Share the trail

Methodology

Visitor behaviors were assessed during September 1999 at seven trailheads on the Open Space land system in Boulder County, Colorado. (figure. 1). The trailheads were selected on the basis of their relatively high use levels, geographical distribution and varied terrain. All trailheads used in the study allowed dogs under the city's "voice and sight" regulation. The approximate location of the trailheads is shown in figure 2.

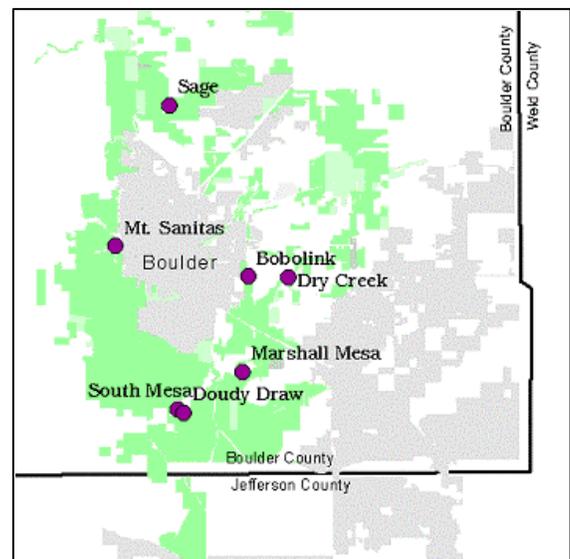
Inconspicuous observers were stationed at vantage points near trailhead parking lots from where they could observe approximately 100 meters down the trail. The observers were engaged in typical visitor activities, and not identifiable as Open Space staff members.

There were three observations at each trailhead. One observation was conducted during each of the following times:

- mid-day on weekends (1000-1400hrs Saturday and Sunday)
- mid day on weekdays (1000-1400hrs Monday through Friday)



• Figure 1: Location of study area in western USA



• Figure 2: Location of study areas (filled circles) within City of Boulder Open Space lands (green). Urban areas in gray

- “after work” 1600-2100 hrs, Monday through Friday)

Observers recorded the number of people and dogs entering the Open Space. In addition, the following data were collected about the six Leave No Trace principles.

Manage your dog

Measurements of compliance with dog management was cast in terms of the City’s dog regulations. Dog were consider under control if they were leashed. Dogs exhibiting any of the following behaviors were considered out of control:

- **Charges/chases/shows aggression toward wildlife**
- **Charges/chases/shows aggression toward livestock**
- **Charges/chases/shows aggression toward people**
Observers made judgements about what constituted “chasing, charging or showing aggression”. Typical “peaceful” dog interactions with visitors and other dogs were not considered chasing, charging or showing aggression. When there was a question about the nature of the interaction, it was considered a peaceful interaction.
- **Charges/chases/shows aggression toward other dogs**
Observers made judgements about what constituted “chasing, charging or showing aggression”. Typical “peaceful” dog interactions with visitors and other dogs were not considered chasing, charging or showing aggression. When there was a question about the nature of the interaction, it was considered a peaceful interaction.
- **Dog out of sight of guardian**
If dogs were very far away, or in dense vegetation, they were considered out of sight. Dogs trotting directly behind the guardian were not considered out of sight.
- **Visitor with more than two dogs**
- **Dog not responsive to commands of guardian**

Pick up after your dog

Observers recorded the number of defecating dogs. For each time a dog defecated, the observer recorded whether or not the excrement was picked up and deposited in a trash can.

Stick to the trail

Observers recorded the number of visitors leaving the trail. Observers made judgements about what constituted off-trail travel. For example leaving the trail to pick up after a dog and then returning to the trail, was **not** considered leaving the trail.

Leave it as you find it

This measure was a count of the number of times visitors were observed taking some natural or cultural feature from Open Space.

Trash your trash

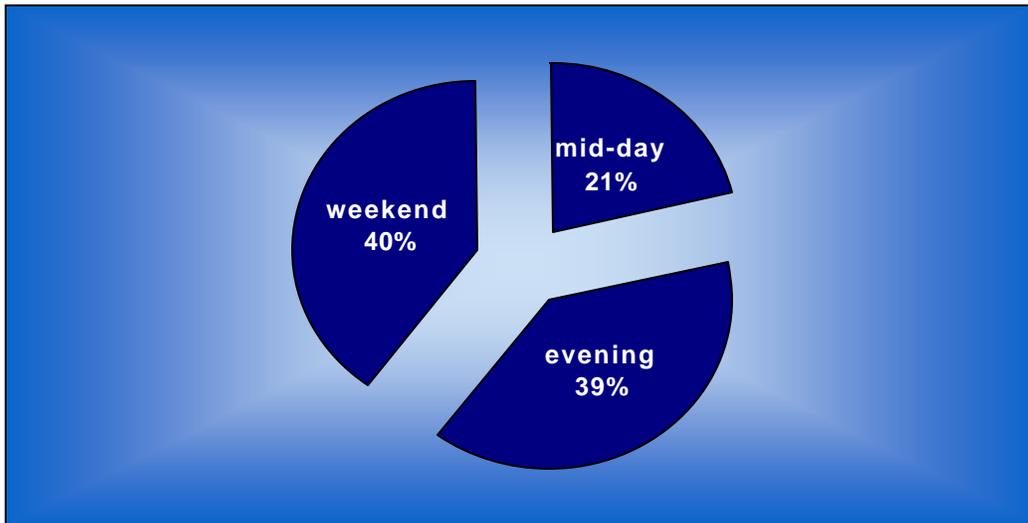
Observers recorded the number of times visitors left trash or other debris with no apparent intent to return for it.

Share the trail

This principle was measured by recording the number of times a visitor failed to yield to others (e.g. biker speeding downhill, ringing bell but not slowing down. Equestrian not moving off the trail to allow opposing traffic to pass.)

Results

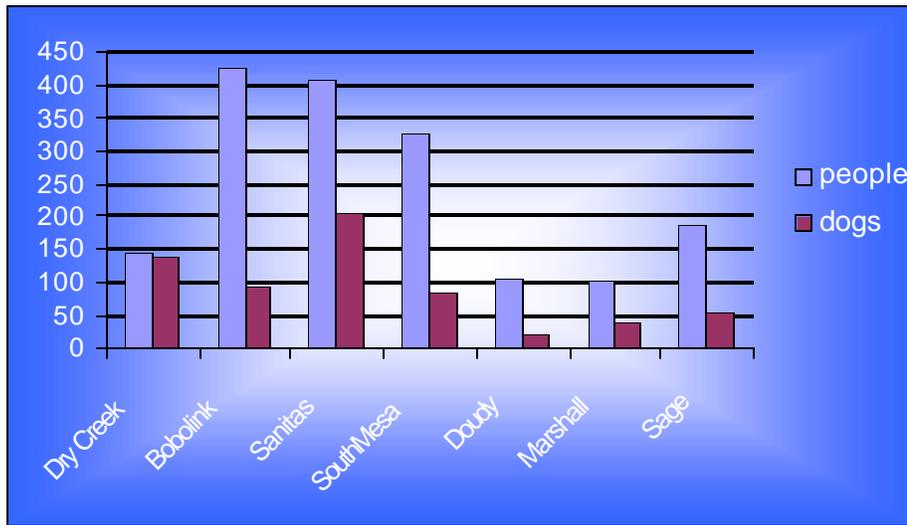
A total of 1,898 people, 720 dogs and 15 horses were observed during the 63 hours of observation. Most visitors were observed in the evenings and during the weekend (figure 3).



• Figure 3: Percentage of visitors observed by time of day.

Use was unevenly distributed among the trailheads, with the busiest trailheads receiving nearly three times the visitation of others. Ratios of dogs to humans ranged from 1:5 to 1:2 over most of the study areas. Dry Creek however had a nearly 1:1 dog to person ratio.

The results from the behavioral observation are given in tables 2 and 3. Table 2 summarizes the total rates of compliance for the six Leave No Trace principles.



• Figure 4: Total recorded visitor and dog use at study areas

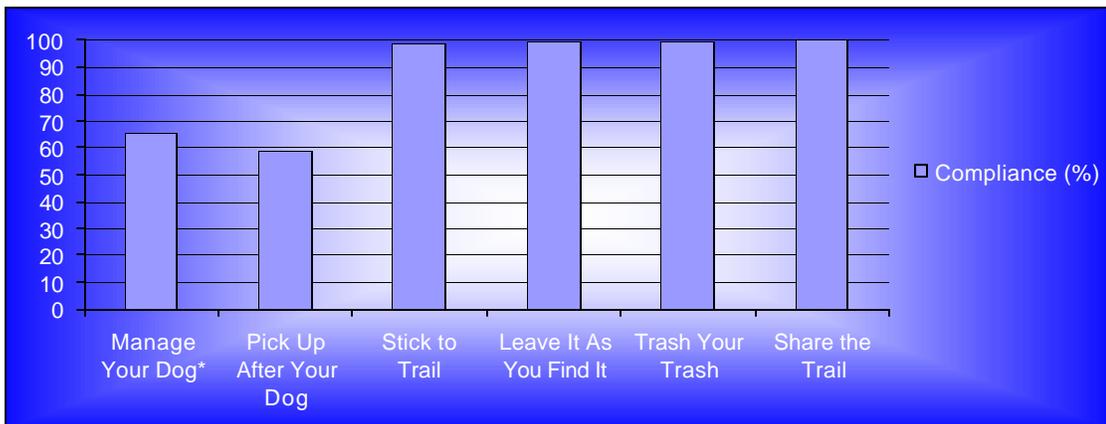
Table 3 provides a breakdown of the behaviors that resulted in non-compliance for dog management.

Table 2: Compliance with LNT principles

Principle	Compliance (%)
Manage Your Dog*	66
Pick Up After Your Dog	59
Stick to Trail	98.5
Leave It As You Find It	99.6
Trash Your Trash	99.5
Share the Trail	99.8

Table 3: Breakdown of behaviors contributing to non-compliance for dog management

Behavior	Number (total = 180)
Charges/chases/shows aggression toward wildlife	6
Charges/chases/shows aggression toward livestock	2
Charges/chases/shows aggression toward people	16
Charges/chases/shows aggression toward other dogs	20
Out of sight	100
More than two dogs	19
Not responsive to commands	40



• Figure 5: Compliance with LNT principles

Discussion

According to the data collected in this study, Open Space visitors are far more likely to be out of compliance with the dog management principles than any other Leave No Trace principles. The data suggest that over 40% of dog waste is not picked up by visitors, and that about 35% of the dogs on Open Space are not in compliance with the applicable dog management regulations mostly because dogs are out of sight of their guardians or unresponsive to their guardians commands.

Limitations of the Study

- This study did not associate dogs and visitors, therefore it is not possible to draw conclusions about the rates of non-compliance with dog management principles on a per visitor basis.
- Observers were only able to see visitors and dogs for a limited portion of their time on Open Space. It is likely that the rates of compliance given here are conservative estimates and that if followed for a longer distance, the measured rates would be lower.
- Because dog guardians were not asked to or required to call their dog, the study probably overestimates the rates of responsiveness of dogs to voice commands.

Implications for Open Space Management

- Management efforts such as education and enforcement should be focused upon improving compliance with dog management principles.
- Schedules for education and enforcement personnel should reflect peak visitor use times to ensure maximum rates of contact and opportunities for improving compliance.



Monitoring Protocol for the Voice and Sight Dog Tag Program

1.0 Background

The Voice and Sight Dog Tag Program (VST) is a management strategy within the Education and Outreach Initiative of the Visitor Master Plan. Under the VST program, visitors wishing to have their dogs off leash and under voice and sight control are required to have a tag visibly displayed on their dogs. To obtain a tag, a visitor must view a video describing the requirements of voice and sight control and complete a registration form. Visitors not registered in the program or who do not have a tag on their dog must keep their dog on leash while visiting OSMP and other City of Boulder properties where voice and sight control applies.

2.0 Project Goal and Objectives

The overall goal of the VST program is to:

Increase the proportion of dog guardians visiting OSMP with their dogs who have control over their dogs as required by applicable regulations (BRC 6-1-16)

The program objectives are to:

1. Improve understanding of voice and sight control.
2. Improve compliance with dog control regulations.
3. Increase OSMP outreach to and education of the public with respect to voice and sight control.
4. Decrease conflict involving dogs on OSMP properties.

3.0 Monitoring

Effectiveness monitoring will be conducted to determine whether the VST program is achieving objectives 1, 2, and 4, while implementation monitoring will be conducted to track progress toward objective 3. The effectiveness monitoring will consist of three components.

3.1 Component 1 of the monitoring effort is a brief survey. The survey is designed to evaluate program participants' understanding of the City's Voice and Sight ordinance before they register in the VST program and some point after registration. (Throughout this document, "program participants" refers to visitors that register for and purchase a tag.)

The survey will be conducted twice, once prior to program implementation and once 3-4 months following the program's start. The initial survey will be linked to the project web site such that program participants who use the web site to watch the Voice and Sight video will have to complete the survey

before being able to view the video. Approximately 3-4 months after the VST program starts, OSMP staff will administer the same survey to willing program participants visiting OSMP trailheads. The results from the initial survey linked to the web site registration will be compared to the results from the second survey conducted approximately 3-4 months after the program starts to evaluate any change in program participants' understanding of the City's Voice and Sight ordinance.

Sampling objective: Estimate the proportion of VST program participants that can describe all elements of the City's Voice and Sight ordinance with the existing dog regulations with 90% confidence intervals that are no greater than $\pm 10\%$ of the estimated true value.

Indicators to measure

- Responses to question regarding elements of the City's Voice and Sight ordinance

Statistics

- Proportion of VST program participants that can describe all elements of the City's Voice and Sight ordinance
- Proportion of VST program participants that can describe a specific part of the City's Voice and Sight ordinance. For example:
 - Proportion of VST program participants that can describe the requirement that guardians must have a leash for each dog being managed under voice and sight
 - Proportion of VST program participants that can describe the requirement that guardians may only manage 2 dogs per guardian under voice and sight at one time
 - Proportion of VST program participants that can describe the requirement that dogs must not fail to come and stay with their guardian upon command
 - Proportion of VST program participants that can describe the requirement that dogs being managed under voice and sight must be within view of their guardians

3.2 Component 2 of the monitoring effort is an observational study. The observational study is designed to evaluate program participants' compliance with specific, observable aspects of existing dog regulations including the Voice and Sight ordinance. The observational study will also evaluate the level of conflict involving dogs on OSMP property. There are three sampling objectives associated with Component 2.

3.2.1. Sampling objective 1: Estimate the proportion of dog-containing visitor parties that comply with the existing dog regulations with 90% confidence intervals that are no greater than $\pm 10\%$ of the estimated true value.

Indicators to measure

Number of

- dogs out of their guardians' sight
- dog guardians with more than two dogs off leash
- incidents where dogs fail to respond appropriately to guardians' commands
- incidents where a guardian demonstrates failure to comply with excrement removal regulations

Statistic

- Proportion of dog-containing visitor parties which comply with existing dog-related regulations

3.2.2. Sampling Objective 2: Estimate the proportion of dog-containing visitor parties that are involved in dog-related conflict with 90% confidence intervals that are no greater than $\pm 10\%$ of the estimated true value.

Indicators to measure

Number of incidents of the following dog, guardian, or other visitor behaviors:

- dog flushes or causes wildlife to flee
- dog chases another dog, wildlife, livestock, and/or person other than a member of the dog's party
- dog barks repeatedly
- dog makes physical contact with another visitor and that contact was NOT initiated by a visitor and does not result in injury
- dog makes physical contact with another visitor and that contact results in an injury
- guardian repeatedly calls the dog
- guardians engage in yelling or verbal confrontation related to dog activity
- visitor(s) kick, hit, "mace" or otherwise attempt to or actually harm a dog
- other behaviors by dogs, guardians, or other visitors that might be considered conflictive and involve dogs

Statistics

- Proportion of dog-containing visitor parties in which at least one potentially conflictive behavior is observed
- Proportion of dog-containing visitor parties in which dog or guardian engages in a specific potentially conflictive behavior

3.2.3 Sampling Objective 3:

a. Estimate the proportion of dog-containing visitor parties where leashed/unleashed dogs and/or people in the party leave the trail tread

with 90% confidence intervals that are no greater than $\pm 10\%$ of the estimated true value.

b. Estimate the proportion of dog-containing visitor parties that use an undesignated trail with 90% confidence intervals that are no greater than $\pm 10\%$ of the estimated true value.

Indicators to measure

Number of:

- unleashed dogs/party that leave the trail tread
- leashed dogs/party that leave the trail tread
- people in parties with dogs that leave the trail tread
- dog containing visitor parties that use an undesignated trail

Statistics

- Proportion of dog-containing visitor parties in which at least one leashed dog leaves the trail tread
- Proportion of dog-containing visitor parties in which at least one unleashed dog leaves the trail tread
- Proportion of dog-containing visitor parties in which at least one person leaves the trail tread
- Proportion of dog-containing visitor parties that use an undesignated trail

3.3. Component 3 of the monitoring effort is a visitor interview. Visitors will be interviewed to ascertain the level of compliance with aspects of the Voice and Sight ordinance that are not necessarily observable. Specifically, during the interviews, visitors will be asked to show the interviewee (an OSMP staff member) a leash for each dog they are managing under voice and sight control and to call their dog to their side to demonstrate voice and sight control.

Sampling objective: Estimate the proportion of dog containing visitor parties that comply with the existing dog regulations (being measured) with 90% confidence intervals that are no greater than $\pm 10\%$ of the estimated true value.

Indicators to measure

Number of

- dog guardians in possession of a leash for each dog in their party
- dog guardians that cause their dog(s) to come to and stay by their side upon command

Statistics

- Proportion of dog-containing visitor parties in which the guardian(s) has a leash for each dog in the party

- Proportion of dog-containing visitor parties in which the guardian(s) can get their dog(s) to come to and stay by their side upon command
- Proportion of dog-containing visitor parties which comply with both dog-related regulations being measured

4.0 Study Sites

Monitoring sites were not randomly selected. Rather, several variables influenced the selection of monitoring sites. First, a list of all trails in the OSMP system that allowed voice and sight management of dogs was created. Next, the number of trails on the list was reduced by eliminating trails where visitation levels are expected or known to be (based on the 2005 Visitation Study) low or very low. In an effort to maximize the number of visitor parties observed during each monitoring period and therefore increase efficiency of OSMP resource use, monitoring sites were only selected at trails where visitation levels are expected or known to be medium, high, or very high.

Trails on the list described above were field checked for potential monitoring sites. In the field, visibility, location along the trail, and the presence/absence of a potentially challenging situation for implementing voice and sight control were considered when selecting monitoring sites. Monitoring sites were also selected at locations where visibility was generally high. Additionally, because some models suggest dog behavior is different at the start of a trail (e.g. dogs are excited about being out and may exhibit excited behavior that could be considered conflictive to others; dogs are more likely to poop at the start of their excursion; etc.), monitoring sites were selected at locations at or near the start of trails **and** at various distances from the start of trails. Slightly more than half of the monitoring sites (56%) are located along the trail, and slightly fewer than half (44%) are located at or near the start of a trail. Finally, the presence/absence of a potentially challenging situation for implementing voice and sight control such as proximity to a prairie dog town or water affected site selection. Monitoring sites that include a potential challenge (37% of the sites) and ones that do not include an obvious challenge were selected (63% of the sites).

It is important to note that the monitoring study is designed to gain an understanding of the level of compliance with voice and sight and other existing regulations across the system. Results from the study sites will be pooled, and the individual study sites will not be compared to each other. This design allows data to be collected efficiently and therefore with the minimum amount of resources.

5.0 Methods

Component 1

The Component 1 survey will be administered to program participants as they register for the VST program via the program's web site. The survey appears on the web site prior to the opportunity to view the video. Survey responses

obtained during the period from mid March 2006 to mid June 2006 will be collected in an electronic database for analysis.

The survey will be administered for a second time at randomly selected OSMP trailheads from which extend trails that allow voice and sight management of dogs. Trailheads that receive low to very low visitation will not be included in the pool from which trailheads will be selected for survey administration. The second survey is tentatively scheduled for July 2006.

During July 2006, OSMP staff will administer the survey only to those visitor parties in which at least one dog is displaying a green VST tag indicating that the guardian is likely a VST program participant. (The staff member administering the survey will confirm if the guardian is a VST program participant.) The survey will be administered during two three-hour periods over the course of 15 weekdays and 6 weekend days. (If the survey is administered on July 4, this will be considered a weekend day rather than a weekday.) On weekdays, surveys will be administered in the morning (approximately three hours after sunrise) and the late afternoon/early evening (approximately three hours prior to sunset). On weekend days, the survey will be distributed in the morning (approximately 7-10 AM) and during midday (approximately 10:30 AM -1:30 PM). If sufficient personnel are available, 2 staff members will administer the survey, each one at a different location. This would allow for a total of 84 survey periods over the course of July.

Responses from surveys administered in July will be analyzed to determine the frequency of visitation among survey respondents. It is expected that more surveys will be administered to frequent OSMP visitors since frequent visitors are more likely to be encountered at the trailheads than infrequent visitors.

OSMP will normalize the two data sets (the mid March 2006 to mid June 2006 set and the July set) for frequency of visitation. By doing this, OSMP hopes to eliminate one factor that could affect a person's understanding of the voice and sight ordinance, the metric OSMP is trying to evaluate. Once the distribution of visitation frequency is known for the surveys administered in July, this distribution will be used to guide selection of a sample of surveys obtained via the web site from mid March 2006 to mid June 2006. For example, if OSMP obtains 1000 completed surveys during July and finds that 70% of survey participants visit OSMP 3-5 times a week and 30% visit OSMP daily, OSMP staff will randomly select 700 surveys from the pool of surveys administered on the web site from mid March to mid June in which the respondents note they visit OSMP 3-5 times a week and 300 surveys in which the respondents note they visit OSMP daily. This subset of surveys from the mid March to mid June period will be compared to the surveys completed at the trailheads in July.

Scheduling of monitoring sessions for Components 2 and 3

During the months of March, April, and May 2006, the Component 2 monitoring will be conducted by two people, each monitoring on 7 days (5 weekdays and two weekend days) during the each month for a total of 14 days of monitoring each month. Each day consists of two three-hour monitoring periods. On the weekdays, monitoring will occur in the morning (approximately three hours after sunrise) and the late afternoon/early evening (approximately three hours prior to sunset). Generally, in March and April, the morning monitoring periods will last from 6:15-6:45 to 9:15-9:45 AM, while the late afternoon monitoring periods will last from 3:00-3:15 to 6:00-6:15 PM. In April, following the switch to daylight savings time, the late afternoon monitoring periods will last from 4:30 to 7:30 PM. In May, the monitoring period will last from 6:15 to 9:15 AM and the later afternoon period will generally last from 4:45 to 7:45 PM. Weekday monitoring period times are summarized in Table 1. On weekend days, monitoring will occur in the morning (approximately 7-10 AM) and midday (approximately 10:30 AM -1:30 PM).

Table 1. Weekday monitoring period times

Month	Morning	Evening
March	6:15-6:45 to 9:15-9:45 AM	3:00-3:15 to 6:00-6:15 PM
April	6:15-6:45 to 9:15-9:45 AM	4:30 to 7:30 PM
May	6:15 to 9:15 AM	4:45 to 7:45 PM

Similarly, during the months of March, April, and May 2006, Component 3 monitoring will be conducted by two people, each monitoring on 7 days (5 weekdays and two weekend days) each month for a total of 14 days of monitoring each month, using the same monitoring periods described above.

Each month, the monitoring project scheduler will use a random number sequence to determine which days in the month Component 2 monitoring will be conducted. Once the Component 2 monitoring days have been assigned, the scheduler will generate a second random number sequence to determine which days Component 3 monitoring will be conducted. If a number in the second random number sequence corresponds with a day that is already scheduled for the Component 2 monitoring, the scheduler will use the next number in the sequence to schedule the Component 3 monitoring.

Once the Component 2 and 3 monitoring days have been scheduled, the scheduler will randomly select sampling sites, with replacement, for each day on which monitoring is scheduled. This process will be repeated each month so that monitoring staff will have a monitoring schedule prior to the start of each month.

If monitoring does not occur on a day scheduled for monitoring (e.g. monitoring staff is ill, weather is not appropriate for sampling, etc.), “make up” monitoring sessions will be completed on the next available day.

At the end of May 2006, the number of observations from Component 2 and interviews from Component 3 will be evaluated to determine if additional monitoring should be scheduled for June 2006.

The monitoring will be repeated from March to May or June of 2007. Results from 2007 will be compared to results from 2006 to gauge whether the project objectives are being achieved.

Component 2 field procedures

Field personnel will arrive at the monitoring site at least five minutes prior to the start of the monitoring period. (Some monitoring sites require a short hike from the trailhead or other parking area.) Field personnel will **not** wear attire that identifies them as OSMP staff. Field personnel will bring at a minimum, a datasheet (Attachment 1), clipboard, and pencil to each monitoring session. For monitoring sites that are set off some distance from the trail(s) being observed, field personnel will also bring binoculars to the monitoring session. Upon arrival at the monitoring location, the observer will enter the header information in the datasheet. This includes the date, time, and location of the monitoring session, the initials of the observer, and the weather at the time of the monitoring session. Details about the weather at the time of the monitoring session should include the approximate temperature at the start and end of the session, cloud cover, wind level, precipitation, and any other weather information that may be important in understanding visitation levels that day and time.

Once the monitoring session begins, the observer will observe the first dog containing visitor party that enters the observation area. The observer will record the number of dogs and people in the visitor party. The observer will watch the visitor party the entire time the party remains in the observation area.

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

1. The observer will note the number of dogs in the visitor party that are leashed the entire time the visitor party is in the observation area.
2. For dogs that are unleashed for at least some portion of the observation area, the observer will note the number of dogs with and without a green VST tag and the number of dogs for which no determination could be made regarding whether they were wearing a VST tag or not. (Due to the location of some of the monitoring sites and the characteristics of some dogs (e.g. dogs with shaggy coats), monitoring personnel may not be able to determine whether a dog is wearing a VST tag.)
3. The observer will note whether there are others in the observation area that may present an opportunity for interaction. The observer will characterize the others as other visitors (H), other dogs (D), livestock (L), or wildlife (W) are present. (While the monitoring personnel will likely be able to determine if other visitors, other dogs, or livestock are present in the observation area, it is acknowledged that monitoring personnel may not be able to readily observe all wildlife in the observation area.) When

- wildlife are observed in the observation area, the species or general category of wildlife will be noted in the “Notes” section.
4. The observer will record all listed behaviors observed. (Attachment 2 provides a list of dog, guardian, and visitor behaviors to be recorded.) The observer will record any pertinent notes regarding the 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 another dog, the observer will record the guardians’ reaction to the incident.) If no listed behaviors are observed, the observer will record a “0” in the “Behavior Observed” column of the datasheet.
 5. The observer will record the number of people, unleashed dogs, and leashed dogs that leave the trail.
 6. The observer will record whether the visitor party used a social trail while in the observation area.
 7. The observer will record 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.
 8. If the guardian issues any commands to the dog(s) in the party, the observer will note number of the dogs that obey all commands issued and the number of dogs in the party that do not obey at least one of the commands. The guardian is given two chances to obtain the appropriate response from the dog before the observer records that the dog did not obey the guardian’s command. For example, if the guardian says “Here *Griswald*.” and the dog does not come, the observer will not record anything. If the guardian says “Here *Griswald*.” again and the dog fails to come after this second calling, the observer will record that the dog did not obey guardian’s commands. If the guardian says “Here *Griswald*.” and the dog comes to the guardian, the observer will consider that obeying the guardian’s commands. If the guardian does not issue any commands to the dog(s) while in the observation area, “NA” will be recorded in both columns under “Response to call” on the datasheet.
 9. The observer will note whether or not there were more than two unleashed dogs per guardian in the visitor party.
 10. The observer will note the number of times the dog(s) in the visitor party poop in the observation area. If none of the dogs in the visitor party poop while in the observation area, the observer will record a “0” in the first column under “Excrement” on the data sheet and a “NA” in the four following columns under “Excrement”. For each poop incident, the observer will note the whether the guardian picked up the excrement or not. If the guardian picked up the poop, the observer will note whether the guardian took the poop with him or her out of the observation area or

whether the guardian left the poop, presumably in a bag, in the observation area.

11. The observer will record anything unusual about the observation or anything that helps explain data entered in specific columns of the datasheet about the observation.

Once the dog-containing visitor party that is being observed leaves the observation area, the observer will begin observing the next dog-containing party that enters the observation area repeating the process described above. (It is possible that a dog-containing visitor party will have entered the observation area while the observer was already observing a dog-containing visitor party that entered the observation area first. This dog-containing visitor party will not be observed since the observer would not have had the opportunity to view this party the entire time.)

Component 3 field procedures

Field personnel will arrive at the monitoring site at least five minutes prior to the start of the monitoring period. (Some monitoring sites require a short hike from the trailhead or other parking area.) Field personnel **will** be attired in field gear that identifies them as OSMP staff. Field personnel will have a small pocket notebook and a pencil with them.

When the interview session begins, the interviewer will approach the first dog-containing visitor party encountered in the interview area and in which the dog(s) in the party is at least 15-20 feet from the guardian(s). The interviewer will ask the party's willingness to engage in an interview using a script similar to the following:

Hello. My name is interviewer's name. I am with OSMP. We are in the field today conducting visitor interviews to help us get an understanding of the conditions in the field and improve our management related to these conditions. I was wondering if you would be willing to help us by answering 1 or 2 questions.

If the visitor declines to participate in the interview, the interviewer will thank them. If the visitor agrees to participate, the interviewer will continue with the interview using a script similar to the following:

The questions are related to dog management so before I ask them I want you know that I am not a ranger; I'm not going to ask your name; and I can't and won't be issuing a summons for any answers you give. We are simply trying to understand the current conditions on the ground.

If the visitor still appears willing to participate, the interviewer will ask:

1. *Would you show me a leash for each of your dogs you are managing under voice and sight control?*

2. *Would you call your dog(s) to your side?*

If during the initial part of the interview process the dog(s) in the visitor party approach the guardian such that it is no longer 15-20 feet from the guardian, the interviewer will only ask the first of the two interview questions.

After the interview, thank the visitor for his or her time and willingness to help OSMP. If the visitor party did not have a leash for each dog in the visitor party, the interviewer will offer the visitor party the appropriate number of complementary OSMP leashes. Once the visitor party leaves the interviewer and party continues their hike, the interviewer will record the following in his/her pocket notebook:

1. the number of dogs in the visitor party and the number of leashes
2. the number of dogs the guardian was able to get to immediately return to his or her side
3. notes regarding the guardian's attempt to call the dog(s) to his or her side – specifically
 - a. the number of calls the guardian made for each dog before the dog returned to the guardian's side
 - b. the approximate distance of the dog(s) from the guardian
 - c. the location of the dog(s) – i.e. whether the dog(s) was on trail or off trail; whether the dog(s) was in front of, or trailing the guardian
 - d. what the dog appeared to be doing at the time – i.e. looking at the guardian; sniffing something, watching wildlife, other visitors, or other dogs; swimming or wading in water; engaging another dog in play; etc.
 - e. conditions that may have affected the dog's ability to respond to the guardian – i.e. the dog was likely too far away to hear the guardian's call; the dog had to go around some obstacle in the trail to get to the guardian
 - f. comments from the guardian
 - g. anything else that may be important to explain the event
4. notes regarding anything the guardian refused to do or specific interactions with the guardian regarding the interview

After the interviewer has completed recording his/her notes from the interview, the interviewer will approach the next dog-containing visitor party encountered in the interview area and repeat the process.

Attachment 2

List of potentially conflictive behaviors with associated data sheet code

No listed behavior observed

0. No listed behavior observed

No physical contact by dog

1. Flushing or fleeing wildlife (requires 2 of the 4 modifiers)
 - a. Dog is leashed
 - b. Dog is unleashed
 - c. Dog is on trail
 - d. Dog is off trail
2. Chasing
 - a. Dog on dog (requires 1 modifier)
 - i. Positive
 - ii. Negative
 - iii. Unknown
 - b. Wildlife
 - c. Livestock
 - d. Person other than member of party (requires 1 modifier)
 - i. Positive
 - ii. Negative
 - iii. Unknown
3. Repeated barking (more than 7 barks in succession)

Physical contact by dog

5. Physical contact NOT initiated by a visitor and not resulting in injury (requires at least 1 modifier) (Notes should describe the interaction.)
 - a. Jumping on
 - b. Licking
 - c. Pawing
 - d. Sniffing
 - e. Other
6. Physical contact resulting in injury (requires at least 1 modifier)
 - a. Person,
 - b. Another dog,
 - c. Wildlife
 - d. Livestock

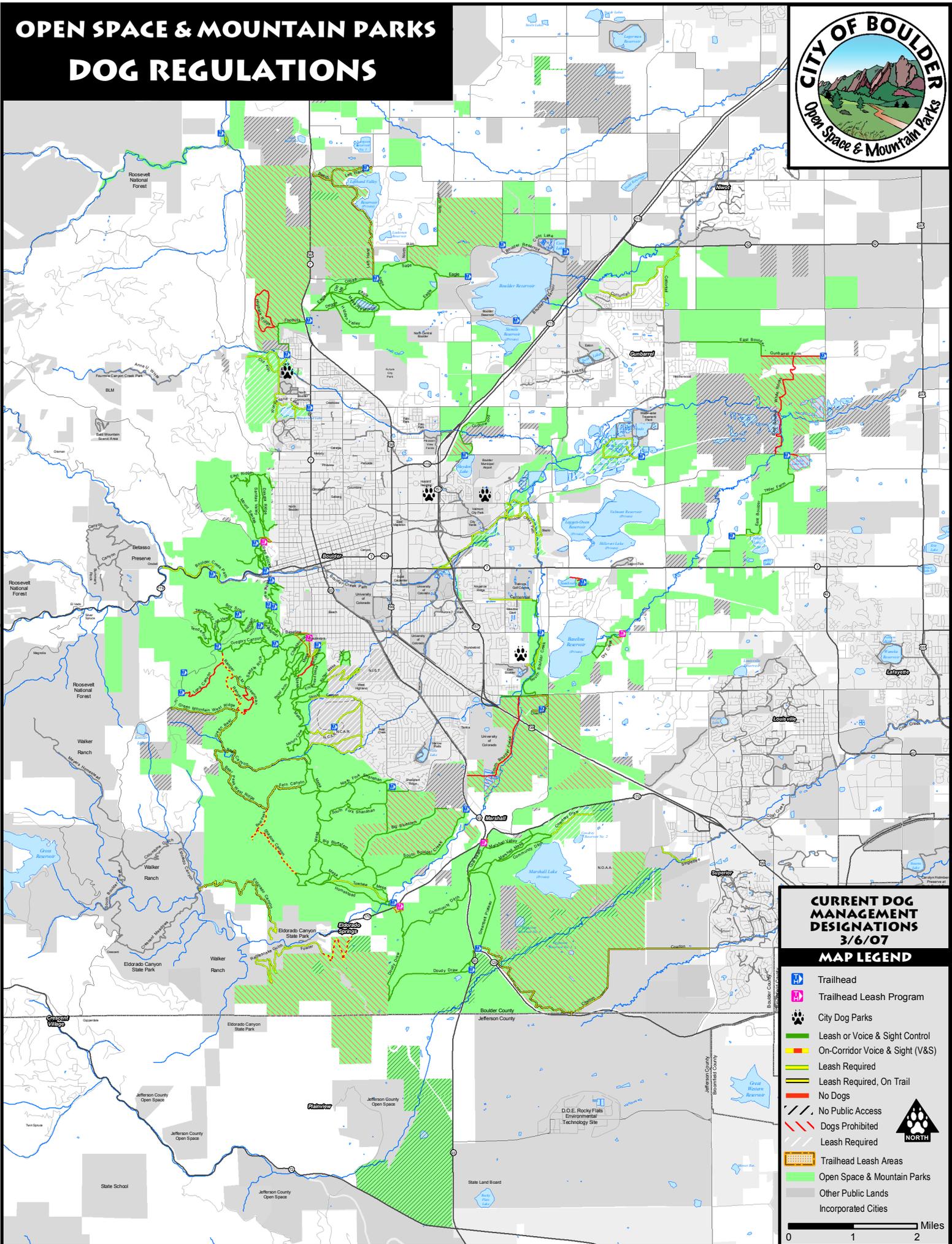
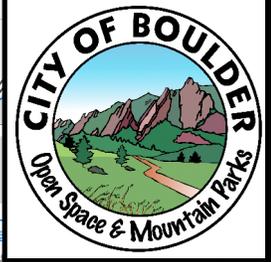
Incidents of the following behaviors by dog guardians or other visitors

7. Repeatedly calling the dog (more than two times)
8. Yelling/verbal confrontation
9. Kicking, hitting or "macing" of dogs by humans

Other

10. Other (Notes should describe the interaction/situation)

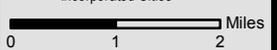
OPEN SPACE & MOUNTAIN PARKS DOG REGULATIONS



CURRENT DOG MANAGEMENT DESIGNATIONS 3/6/07

MAP LEGEND

- Trailhead
- Trailhead Leash Program
- City Dog Parks
- Leash or Voice & Sight Control
- On-Corridor Voice & Sight (V&S)
- Leash Required
- Leash Required, On Trail
- No Dogs
- No Public Access
- Dogs Prohibited
- Leash Required
- Trailhead Leash Areas
- Open Space & Mountain Parks
- Other Public Lands
- Incorporated Cities



Is the tag a "license" or unique to a specific dog?

The tag signifies that the dog guardian has registered and is participating in the program. The tag is not specific to a dog.

Do I have to renew my registration at some point?

No.

What if I change my mind and no longer want to be registered?

Dog guardians who no longer wish to participate in the program may call OSMP at (303) 441-3440 to have their registration discontinued.

How can I find out more about the program?

Dog guardians can learn more about the Voice and Sight Dog Tag program by visiting our website at www.osmp.org or calling (303) 441-3440.

Voice and Sight Dog Tag Program

City of Boulder



Properly trained, a man can be dog's best friend.

— Corey Ford

City of Boulder Voice and Sight Dog Tag Program

The city of Boulder is one of only a few systems on the Colorado Front Range which allow dog guardians to walk dogs off-leash. This opportunity is possible only if dogs are not required to be on-leash and are responsibly controlled under voice and sight control. It is a tough standard for both dogs and guardians.

A new Voice and Sight Dog Tag Program has been designed by the city of Boulder to help dog guardians understand voice and sight control standards and to reduce conflicts which can occur with visitors, other dogs and wildlife.

What is the Dog Tag program?

The new city of Boulder Voice and Sight Dog Tag program requires dog guardians to watch a video about voice and sight control, register with OSMP and display a special program tag on dogs they wish to walk off-leash. This program only applies to City of Boulder properties where voice and sight control is allowed.

Is this a requirement or just a request?

It is the law. Participation in the program is a new requirement of voice and sight control as stated in city ordinance Boulder Revised Code (BRC) 6-1-16 and 6-13-2 through 6-13-5. Dog guardians may review these ordinances by visiting the OSMP website at www.osmp.org or the City of Boulder website at www.ci.boulder.co.us. Violations include not registering for the program and/or having a dog under voice and sight control without displaying a tag.

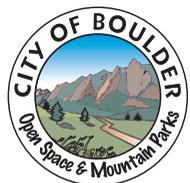


What is voice and sight control?

Voice and sight control means the dogs you are responsible for must be within your sight and under your verbal command at all times, regardless of distractions which can occur during a walk. If your dog cannot immediately obey verbal command, your dog must remain on-leash. Also, keep in mind that dogs under voice and sight control are not allowed to charge, chase or display aggression towards other people or dogs or chase, harass, or disturb wildlife and livestock.

How do I participate in the program?

For your convenience, the City of Boulder is offering several methods of registration, including registration through our website or visiting the OSMP administrative offices in person.



For information visit: www.osmp.org
or call (303) 441-3440
or write
Open Space & Mountain Parks
P.O. Box 791
Boulder, CO 80306



January, 2006-??M

ENJOY.  PROTECT.

Frequently Asked Questions about the Voice and Sight Dog Tag Program

STEP 1.

The city of Boulder has produced a video which illustrates the requirements of voice and sight control and realistic, enforceable dog management behaviors.

The short, instructional video can be viewed on the OSMP website, www.osmp.org, on Channel 8, or by acquiring a copy of the video on DVD.

Watching the video is a required step in the registration process. After watching the video, dog guardians are expected to know the regulation and understand how it applies to managing dogs using voice and sight control.

Before registering for the program, you will be asked to affirm that you watched the video and agree to control your dogs off-leash under voice and sight control in the manner described in the video.

STEP 2.

Dog guardians can either register for the program on-line or by visiting the OSMP Administration building at 66 South Cherryvale Road. You and every member of your household who wishes to walk your dogs under voice and sight control must register for the program.

STEP 3.

After you and other members of your household have seen the video and registered in the program, you may purchase the voice and sight dog tag in a couple of ways. You may purchase tags through the OSMP website with your credit card. The OSMP staff will process your order the next business day (please allow 3-5 business days for arrival). You may also come to the OSMP Administration building at 66 South Cherryvale Road to purchase your tags with check, cash or credit card and you will be issued the tags upon payment.

STEP 4.

Ensure that voice and sight program tags are displayed on all dogs when using voice and sight control on City of Boulder lands where voice and sight control is allowed.

Does everyone in the family or household have to register?

Yes. Every member of the family who wishes to walk a dog under voice and sight control must register in the program. The first registrant must be an adult (over 18). Minors may register as part of the same household. Each participant must watch the instructional video and agree to manage off-leash dogs under voice and sight control on City of Boulder lands where voice and sight control is permitted. There is no extra charge for registering additional members of the household.



What if I don't agree to register and get a dog tag?

If a dog guardian chooses not to register with the voice and sight tag program and display voice and sight dog tags, dogs must be kept on-leash at all times.

Am I protected from getting a ticket if my dog has a voice and sight dog tag?

No. A dog guardian who participates in the program and walks a dog under voice and sight control in areas where it is allowed may still be issued for any violation of the following standards:

- The dog guardian is walking more than two dogs under voice and sight control;
- The dog guardian is not carrying a leash for each dog being walked under voice and sight control;

- The dog guardian fails to display voice and sight tag on dog;
- The dog is not within the guardian's sight and under voice control at all times;
- The dog does not come to and stay with the guardian immediately upon command;
- The dog charges, chases or otherwise displays aggression towards any person, or behaves in a way that any reasonable person may find harassing or disturbing;
- The dog charges, chases or otherwise displays aggression towards any dog;
- The dog chases, harasses or disturbs wildlife or livestock.

What are the penalties?

The maximum penalty for a first violation is a fine of \$50. For a second violation within 24 months the maximum penalty is a fine of \$100. A third violation within the same 24 months will result in a fine of not less than \$200 and revocation of the privilege to use voice and sight control.

When is revocation of voice and sight privileges possible?

When an individual has three convictions of Boulder Revised Code (BRC) 6-1-16, "Dogs Running at Large Prohibited" on city OSMP or Parks and Recreation lands within 24 months based on the date of the first violation revocation will occur. Violations of voice and sight control and dogs off-leash in leash only areas are violations of BRC 6-1-16.

Can I get back the privilege to use voice and sight control?

Voice and sight control privileges may be reinstated if the dog guardian proves attendance at a city of Boulder certified training on voice and sight control, and written proof of successful completion of a voice and sight control certification course approved by the City of Boulder. Dog guardians must pay a

reinstatement fee of \$50 plus the \$15 registration fee, as well as the cost of attending the certification program. Dog guardians must also again agree to control any dog accompanying the guardian without a leash in a manner described in the voice and sight video.

In what areas does voice and sight control apply?

The new city of Boulder voice and sight tag program only applies on city Parks and Recreation and OSMP lands which do not require dogs to be on-leash. Dogs are required to be on-leash inside Boulder city limits, unless they have been specified to allow voice and sight control. Voice and sight control requirements also apply to Howard Heuston Dog Park.

What if I need to add someone to my household registry?

Dog guardians who wish to add members of the household to the dog tag program must come in person to the OSMP administration building at 66 South Cherryvale Road.

Does everyone in the household have to watch the video?

Yes. Everyone who wishes to walk the dog under voice and sight control must see the video and agree to the terms and conditions of the voice and sight control requirements. Members of the household who do not walk the dog or choose to walk the dog on-leash do not need to see the video and register as part of the household.

What if I lose a tag or need more?

Dog guardians can come in person to the OSMP administration building at 66 South Cherryvale Road to buy additional tags. Guardians will not be required to pay the registration fee again but will be charged \$5 for each new tag.

Bay Area Dog Management Zones: Extent of On-leash, Off-leash, and Prohibited Areas

Jurisdiction	City/County of San Francisco	San Mateo County	Marin County Parks	Marin County Open Space	Marin Water District	Point Reyes National Seashore	State of CA	Mid-peninsula Regional Open Space	East Bay Regional Parks	San Francisco Watershed
Area of Managed Land	3,300 acres	16,000 acres; 190 miles of trail	700 acres	15,000 acres; 190 miles of trail and fire road	21,000 acres; 130 miles of trail	71,000 acres	12,000 acres near, adjacent to GGNRA	50,000 acres; 220 miles of trail	95,000 acres; 1,150 miles of trail	63,000 acres; 210 miles of rights-of-way
Areas where dogs permitted On-Leash	3,300 acres minus athletic fields/courts; playgrounds; sensitive habitat areas	None	None	190 miles of trails and fire roads	21,000 acres; 130 miles of trail	150 acres of beach (approx.); most 'developed' areas; 15 miles of trail	Parking lots and paved roads only; no beaches or trails	17.5 acres; 50 miles of trail	Approx. 90,000 acres	None
Areas where dogs permitted Off-Leash	114 acres; .2 miles of trail	None	None	70 miles of fire roads	None	None	None	17.5 acres	Most areas, excluding parking lots, picnic areas, camping, etc.	None
Areas where dogs prohibited	Athletic fields/courts; playgrounds; sensitive habitat areas	16,000 acres; 190 miles of trail	700 acres	Approx. 14,800 acres (all areas except trails and fire roads)	None	All undeveloped areas; most beaches and trails	All areas except parking lots and paved roads	Approx. 48,930 acres	Approx. 5000 acres of beaches, wetlands, nature areas/preserves and golf courses	63,000 acres; 210 miles of rights-of-way

Definitions of Voice Control: Select Bay Area and nationwide examples

	CITY/COUNTY OF SAN FRANCISCO	MARIN COUNTY PARKS	MARIN COUNTY OPEN SPACE	MIDPENINSULA REGIONAL OPEN SPACE	EAST BAY REGIONAL PARKS	CITY OF SANTA CRUZ, CA	CITY AND BOROUGH OF JUNEAU, AK	CITY OF BOULDER, CO	TOWN OF SCARBOROUGH, ME
Definition of Voice Control	Dog must respond immediately to commands.	Under the direct and immediate control of a responsible person.	Returns to handler immediately when called (two calls with a return limit of 15 seconds). Dogs are required to remain within 30 feet of the handler when on fire roads.	Not allowed to interfere with or harass park users, other dogs, or wildlife.	Kept under control at all times. Dogs are considered under control when they are within direct eyesight of the handler and when they have the ability to quickly return to leash when called. Dogs that annoy, harass, or attack people, wildlife, livestock, or other dogs, leashed or unleashed, or which enter leash-required or dog prohibited areas, are presumed to not be under control.	Dog owners must be in full control of their dogs at all times. Control must be immediate. Dog owners are financially responsible for any damage caused by their dog to public property.	Dog must be within sight and under verbal control at all times, regardless of distractions (such as wildlife, other dogs, food, or other park visitors). If dog jumps on, barks at, or acts aggressively toward people or other dogs, chases wildlife, or will not consistently come immediately upon command, the dog must be leashed.	Dogs must be within sight and under verbal command at all times, regardless of distractions which can occur during a walk. Dogs must immediately obey verbal command. Dogs under voice and sight control are not allowed to charge, chase or display aggression towards other people or dogs or chase, harass, or disturb wildlife and livestock.	Dog returns immediately to and remains by the side of the handler in response to verbal command. If a dog approaches or remains within 10 feet of any person other than the handler, that dog is not under voice control unless such person has communicated to the handler by spoken word or gesture that such person consents to the presence of the dog.