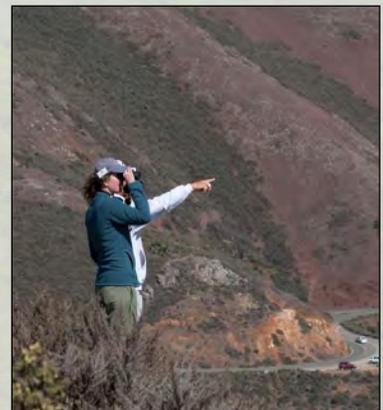




Golden Gate National Recreation Area California

Final Dog Management Plan /
Environmental Impact Statement



VISITOR USE AND EXPERIENCE

GUIDING POLICIES AND REGULATIONS

NPS *Management Policies 2006* (NPS 2006a, Section 8.2) state that the enjoyment of park resources and values by the people of the United States is part of the fundamental purpose of all parks and that the NPS is committed to providing appropriate, high-quality opportunities for visitors to enjoy the parks. Because many forms of recreation do not require a national park setting and may even be more appropriate to other venues, the NPS will seek to:

- provide opportunities for forms of enjoyment that are uniquely suited and appropriate to the superlative natural and cultural resources found in a particular unit; and
- defer to local, state, and other federal agencies; private industry; and non-governmental organizations to meet the broader spectrum of recreational needs and demands that are not dependent on a national park setting (NPS 2006a, Section 8.2).

The NPS may allow other visitor uses that do not meet all the above criteria if they are appropriate to the purpose for which the park was established and if those uses can be sustained without causing unacceptable impacts on park resources or values.

Part of the purpose of a park is to offer opportunities for recreation, education, inspiration, and enjoyment. A park's significance lies in the resources that visitors enjoy. One of the NPS mission goals for visitor satisfaction and understanding at all park units is to ensure that "visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities (NPS 2000c, 12, 22)." This goal focuses on maintaining high visitor satisfaction by means of appropriate and safe recreational opportunities and experiences.

STUDY AREA

The geographic study area for visitor use is the GGNRA sites under consideration in this final plan/EIS, as well as nearby dog walking areas (outside of GGNRA) that could be impacted by dog management resulting from this plan. The 22 individual sites within GGNRA addressed by this final plan/EIS are described in detail in chapter 3.

DURATION OF IMPACT

Duration describes the length of time an effect would occur, either short term or long term. Long-term impacts to visitor use and experience are described as those persisting for the life of the plan/EIS (the next 20 years). After the implementation of the plan, a period of public education would occur to implement the proposed action followed by a period testing the monitoring-based management program. During these periods, short-term impacts on visitor use and experience would occur, regardless of the alternative chosen and would be similar to the current conditions. Initially there may be some confusion regarding the new regulations at each of the sites and some visitors may reject the new regulation. Following the education period, monitoring for noncompliance and resource impacts would begin and it is expected that compliance with the dog walking regulations and associated adverse impacts would improve gradually and the impacts on visitor use and experience would then become long term, as described below for each alternative.

ASSESSMENT METHODOLOGY

The purpose of this visitor use and experience impact analysis was to determine if the activities proposed among the alternatives are compatible with or in conflict with the purpose of the park, its visitor experience goals, and the direction provided by NPS *Management Policies 2006* (NPS 2006a, Section 8.2). Thus, these policies and goals were integrated into the impact thresholds.

Visitor use and experience can be measured by the indicator visitor satisfaction. Visitor satisfaction is measured by visitor satisfaction surveys distributed at various sites throughout the park. The potential for change in visitor experience was evaluated by identifying projected increases or decreases in on-leash and voice control dog walking and other visitor uses per alternative, and determining whether these projected changes would affect the desired visitor experience and result in greater safety concerns or additional user conflicts.

The impact analysis for visitor use and experience was based on “on-the-ground dog walking conditions” as it is the actual, existing use that provides information on impacts on park resources. The description of current conditions was drawn from visitor use information and visitor incidents related to dog activities at each site. Visitor incidents are based on recent law enforcement data presented in chapter 3, tables 12a-29a (2008 through 2011) and tables 12b-29b and 30 (2012 through 2016), which include leash law violations and warnings, citations, and reports taken on dog bites/attacks, dog rescues, and pet waste removal violations. The results of the 2002 Northern Arizona University telephone survey of residents in Marin County, San Mateo County, San Francisco County, and Alameda County (NAU 2002b), results of the recent *GGNRA Dog Walking Satisfaction Visitor Study* (NPS 2012a), and best professional judgment of park staff were also factored into the impact analysis.

The quality of urban areas is evaluated as part of Visitor Use and Experience. The analysis evaluates impacts for different groups of visitors, in recognition of the fact that different visitors enjoy different experiences. The evaluation of visitor experience includes the importance of the GGNRA areas to urban residents, recognizing the limited areas available. In addition, the analysis of impacts to adjacent areas outside of GGNRA from visitors walking dogs further considers urban quality.

IMPACT THRESHOLDS

Visitor Use and Experience impacts were determined by examining the potential effects of dog walking activities on the visitor’s experience within a park site. The intensity of each adverse impact is judged as having a minor, moderate, or major effect. A beneficial impact would be a positive change to visitor experience. Negligible impacts are neither adverse nor beneficial, nor long-term or short-term. No impacts to visitor use and experience may also be applicable for some alternatives and sites if dogs are prohibited. The following impact thresholds were established to describe the relative changes in visitor use and visitor experience under the various alternatives being considered:

Beneficial A beneficial impact would be a positive change to a visitor use or experience at a park site. Individuals participating in that use or experience in other local or regional areas could return to or begin using the park due to the markedly improved visitor experience as a result of implemented dog management. A beneficial impact is a beneficial change from the current condition and is a relative indicator of progress compared to the no-action alternative.

Negligible Visitors would be unaware of impacts associated with proposed changes. There would be no noticeable change in visitor use and experience or in any defined indicators of visitor satisfaction or behavior. Defined indicators that may impact visitor satisfaction include greater safety concerns, additional user conflicts, and additional dog-related incidents such as dog bites or dogs chasing or jumping on visitors.

Adverse **Minor.** Changes in visitor use and experience would be slight and detectable, but would not appreciably limit or enhance any critical characteristics of the visitor experience. Critical characteristics of the visitor experience include overall visitor satisfaction, visitor safety, and recreation opportunities. Other park areas would remain available for similar visitor uses and experiences. Visitor satisfaction would remain stable.

Moderate. A few critical characteristics of the existing visitor experience would decrease. The number of visitors engaging in a specific use would be altered, resulting in a noticeable change in visitor satisfaction. Other park areas would remain available for similar visitor uses and experiences; however, some visitors participating in that use or experience might be required to pursue their choice in other available local or regional areas.

Major. Multiple critical characteristics of the existing visitor experience would deteriorate, or become unavailable and/or the number of visitors engaging in a use would be greatly altered, resulting in a noticeable change in visitor satisfaction. A limited number of park areas would be available for similar visitor uses and experiences; thus, large numbers of visitors participating in that use or visitor experience would be required to pursue their choice in other available local or regional areas.

User Groups

This impact analysis of visitor use and experience is based on three GGNRA user groups: visitors who would prefer to walk dogs on GGNRA lands, visitors who would prefer not to have dog walking on GGNRA lands, and visitors who do not have a preference regarding dog walking in GGNRA.

Visitors Who Would Prefer to Walk Dogs in GGNRA

Park visitors with dogs typically use GGNRA for dog walking because of the leash laws in the surrounding areas, where off-leash dog walking experiences are limited or prohibited, and because they prefer to visit areas with access to beaches and the shoreline. During the public comment period for the draft plan/EIS, the public noted the importance of off-leash dog walking within GGNRA. One commenter stated “With off-leash areas dwindling everywhere, I have to come all the way from Oakland for beach access and good walking paths for my dog and I both to exercise” (NPS 2011a, Correspondence 200). Another stated, “GGNRA parks are one of the few open areas that dog owners can let their dogs off their leash, ensuring an active lifestyle for the animal” (NPS 2011a, Correspondence 726). Other commenters stated the importance of off-leash dog walking areas for their dogs, “Off leash allowance encourages proper training and socialization of dogs. It affords greater physical and emotional health of dogs and their owners. And it therefore contributes to a better overall society” (NPS 2011a, Correspondence 222). Many commenters noted that they had never had an incident with dog owners or other users of the park, or seen altercations between humans and dogs. Visitors had not experienced issues with dogs entering

restricted areas, or disturbing vegetation or wildlife. Commenters stated that all the user groups were able to utilize the space harmoniously, and many visitors felt dog owners improved the parks. The park also received many comments concerning off-leash dog walking when the GGNRA Advance Notice of Proposed Rulemaking (ANPR) was published in the Federal Register. Of the 8,580 comments received, 71 percent of the comments supported some form of off-leash dog walking in the park. Like the comments received on the draft plan/EIS, commenters stated that off-leash dog walking provided exercise and sociability benefits for dogs and their owners (NAU 2002a, 4).

In a review of dog regulations and issues affecting beaches in California, dog advocates point out the benefits of off-leash dog walking, including the following from Foster (2006, 1; 27):

- Off-leash play is essential to the well-being of dogs.
- Regular off-leash play makes for healthy, well-adjusted dogs.
- It burns up pent-up energy, builds confidence, improves a dog's social skills and helps prevent aggression.
- Off-leash recreation also benefits communities (as described in the remaining items in this list) in addition to dog owners and their dogs.
- Well-socialized and exercised dogs are less aggressive and are less likely to create a public nuisance.
- Designating off-leash space for dogs reduces the likelihood that dogs will be let loose in other areas where they could bother or infringe on the rights of other park users.
- Off-leash areas promote exercise for dog owners.
- An off-leash area functions as a social center as it provides a public space and opportunity for dog owners to meet, share information, and form community bonds.
- Off-leash areas also promote responsible dog ownership such as cleaning up after a dog and controlling behavior.

During the public comment period for the draft plan/EIS, some commenters stated that they would be unable to provide their dogs the necessary exercise on-leash. Dogs off-leash are able to run much more, and if they were on-leash they would be restricted to the fitness abilities of their walker. One commenter stated, "Dogs need to exercise and just cannot get enough exercise on a leash. I can walk or run with my dog 6-8 miles a day and it is not enough for him. When he is off the leash, he can chase a ball, run around with other dogs (good for socialization), and run circles around me. So if I walk 6-8 miles he is getting at least twice that from running around me. GGNRA voice control areas allow dogs and their owners to exercise together" (NPS 2011a, Correspondence, 2910).

Twenty-eight percent of the respondents to the Northern Arizona University 2002 telephone survey were dog owners or dog caregivers (NAU 2002b, 16). Of these dog owners/caregivers, 50 percent of the residents have walked their dogs in GGNRA; a larger portion of dog-owning respondents living in San Francisco (75 percent) and Marin counties (69 percent) have taken dogs to GGNRA sites as compared to dog owners living in San Mateo (44 percent) or Alameda counties (29 percent) (NAU 2002b, 17). Among these visitors, one out of five dog walkers visited the park daily or weekly to walk dogs. Approximately 27 percent of all people surveyed (dog owners and non-dog owners) stated that seeing an off-leash dog added positively to their visitor experience (NAU 2002b, 17). A total of 21 percent of all people surveyed support allowing off-leash dog walking on trails used by other user groups. Some of the respondents stated that they enjoy playing with other visitors' dogs and that dogs add to the park's visual aesthetic experience (NAU 2002b, 19). During the public comment period, one commenter noted "I'm not a dog

owner, nor lover, but I LIKE the dogs running around Crissy Field and the East Beach, Presidio. The owner's are responsible, clean up is diligent” (NPS 2011a, Correspondence 301). During the recent *GGNRA Dog Walking Satisfaction Visitor Study* (NPS 2012a), when asked if visitors would be satisfied if dogs off-leash were not allowed at the park, 653 respondents (97 percent) indicated that would not be satisfied or slightly satisfied. Only 21 respondents (3 percent) indicated they would be moderately satisfied to completely satisfied (NPS 2012a, 17). When asked if visitors would be satisfied if both on and off-leash dog walking were reduced at the park, 657 respondents (98 percent) would not be satisfied or slightly satisfied. Only 15 respondents (2 percent) indicated that they would be moderately satisfied to completely satisfied (NPS 2012a, 22).

Elderly and handicapped visitors find it difficult to walk their dogs on-leash; therefore the availability of off-leash dog areas is important to these visitors. In addition, some visitors find it difficult to walk in the sand, so the availability of off-leash dog walking areas with compacted surfaces is important to this user group. During the public review period of the draft plan/EIS, commenters stated, “For those with disabilities, pregnant, with young children, or elderly, it is often difficult to walk, even a very well trained dog, on leash for great distances” (NPS 2011a, Correspondence 39). Elderly visitors also find enjoyment in watching other visitor’s dogs run and interact. As one commenter noted, “I know a number of senior citizens that go there [Fort Funston] specifically to interact with people and their dogs, it is the only joy in life they have” (NPS 2011a, Correspondence 1752). If funding is available, the park would explore options that would allow improved access for disabled and elderly visitors to VSCAs, such as beach mats or improved trail surfaces. The San Francisco Recreation and Park Department conducted a *Community Attitude and Interest Survey* in May and June 2004 to establish priorities for the future development of recreation and park facilities, programs, and services within the community (SFRPD 2004). Key recreation issues were identified by the community as part of the survey. From a list of 19 recreation facilities, respondents were asked to indicate which facilities a member of their household has a need for. Approximately 25 percent of the respondents indicated a need for DPAs, referred to as DPAs. Respondents were then asked to select the four most important recreation opportunities out of a total of 19; DPAs were selected as one of the most important by 14 percent of respondents, placing DPAs as ninth on the list of nineteen opportunities. Respondents were asked to select the activities that they currently participate in (from a list of 26 programs or activities available to the public). Twenty percent of respondents currently participate in dog walking and 8 percent of respondents stated that they would participate in dog walking if more opportunities were available (SFRPD 2004, 13-15).

Visitors Who Would Prefer Not to Have Dog Walking in GGNRA

Picnickers, beachgoers, walkers, joggers, bicyclists, horseback riders, wildlife watchers, and those seeking a quiet and natural experience at the park could be affected by running and barking dogs. When a large group of people and dogs are placed together, the situation can lead to confrontation between a dog and an adult, child, or another dog. The Deputy Director of Park Operations for California State Parks observed dogs being a potential threat to visitors, park staff, and other dogs, when not on a leash (Foster 2006, 32). While many people enjoy the companionship of their dogs, many other park visitors complain that their experience is negatively impacted by dogs (Foster 2006, 32). Often visitors who are not familiar with dogs or who have had unpleasant experiences with dogs are easily intimidated by dogs. During the public comment period for the draft plan/EIS, commenters stated, “The sight of a large off-leash dog bounding toward me is truly scary. I like dogs and I have owned dogs, but with a strange dog I do not know what to expect and fear being knocked down or worse” (NPS 2011a, Correspondence 306), and “I like dogs, but when I see dogs and packs of dogs running together, perhaps towards me, I become anxious. I believe that domestic animals should be kept on leash or tether unless on their owner's fenced property” (NPS 2011a, Correspondence 333).

Visitors who are elderly, handicapped, have physical issues (e.g., joint replacements), or who have small children may be intimidated by dogs within the park, based upon public comments received on the draft plan/EIS. Dogs that jump on people can be unpleasant, frightening, or dangerous to children and the elderly. One commenter noted, “As a parent of a young child I am frequently upset that the freedom of myself and my child to enjoy the recreation areas is marred by my child's natural fear of unknown dogs that are often larger than he is. Dogs on leash are intimidating enough when their human companions may not be fully attentive to the dogs' reach at all times, and cannot stop the growling and barking which is inevitably a part of the nature of many dogs, but dogs off leash are a great concern to me in terms of worrying about my child's safety, and force me to have to regularly actively and defensively manage the distance between us, be on constant watch for approaching dogs, and to insert myself physically between dogs and my child” (NPS 2011a, Correspondence 2076). Elderly and handicapped visitors who have difficulty walking are especially vulnerable to dogs, as noted in a public comment received on the draft plan/EIS, “My husband is disabled and it is important that he walks. He needs a cane because he is unstable and is easily caused to fall. He fell in the park because a dog ran up to him and jostled his cane. Luckily he was on a soft surface and suffered no fractures. However, in a slightly different location the outcome would have been much worse. He no longer goes to the park for this reason” (NPS 2011a, Correspondence 1273). Another commenter stated, “I strongly oppose any dogs in the GGNRA. In this, I am supported by many others; seniors like myself, disabled people, blind people, many of whom have refrained from using the GGNRA where irresponsible dog owners refuse (and most often are not able) to control their dogs. Dogs are a huge liability. You cannot share spaces with them; they run all over everything -- including you -- they bark, whine, yap, thus destroying the beautiful sounds of nature with their angry, hostile noise. They urinate and defecate everywhere. Some of them are vicious, and attack people and other animals at will. Even the leashed ones befoul any area they are in” (NPS 2011a, Correspondence 2161). Commenters also noted that dog owners who are unfriendly or belligerent with other visitors, and/or do not have their dogs under true voice control undermine the experience of other visitors to the park, who do not like listening to dog owners yelling to control their dogs. In public comments on the draft plan/EIS, some commenters noted that dog owners were rude when asked to leash their dogs, pick up waste, or leave restricted areas, and that when incidents occurred, dog owners often blamed the other visitor.

Dogs off leash have the potential to interfere with other visitor activities by barking, knocking over visitors, jumping on visitors, tripping visitors, urinating near visitors, or wandering onto picnic blankets, or by biting visitors, horses, or other dogs. Excessive barking and dog owners yelling to their dogs can disrupt the soundscape of the park, especially for areas in Marin and San Mateo county where the areas have fewer visitors and visitors anticipate a calm, serene experience when they visit. During the public comment period for the draft plan/EIS, commenters noted that the sounds of dogs barking negatively affect their visitor experience, particularly for those who were seeking natural sounds, and did not want to hear dogs or noises associated with dogs. These feelings were reflected in the following statement from commenters: “the experience at the park is compromised when dogs are present” (NPS 2011a, Correspondence 245). “I am a frequent hiker who find dogs sniffing at me, barking at me, licking me all extremely noxious” (NPS 2011a, Correspondence 2268). Visitors recognize that dogs need areas to run and play; however, visitors feel that dog owners are not in control of their pets. One commenter noted, “I can appreciate that dog lovers might want their animals to run free BUT many do not and will not control their animals. There are many urban areas for these pets. I do not want to be bothered by other peoples pets and I do not want to see wildlife harassed by them. There is absolutely no reason for dogs to go free in these wildlife rich areas” (NPS 2011a, Correspondence 2566). Also visitors find dog waste to be offensive “...dogs detract from experiences in nature as their owners don't always pick up their waste and when they are off leash, they could be especially disruptive” (NPS 2011a, Correspondence 2057). During the *GGNRA Dog Walking Satisfaction Visitor Study* (NPS 2012a), when non dog walkers were asked if they would be satisfied if dogs were allowed at their favorite sites at the park, 125 respondents (60 percent) indicated that would not be satisfied or slightly satisfied. A total of 85 (40 percent) respondents

indicated they would be moderately satisfied to completely satisfied (NPS 2012a, 31). One issue identified in the 2004 San Francisco Recreation and Park Department's *Community Attitude and Interest Survey* was that the maintenance of sports fields does not meet the community's expectation due to over use and abuse from dogs (SFRPD 2004, 30).

A survey was conducted in Austria to explore social conditions related to displacement as a result of different types of users and situations from a popular trail in an urban forest recreation area in Vienna (Arnberger 2007). The trail scenarios were depicted as digital images that displayed combinations of levels of crowding with different mixes of user types, group sizes, compliance behavior, direction of movement, and placement within the image. Potentially unwanted behavior was included by displaying unleashed dogs and groups walking, jogging, or cycling side by side. Dogs were depicted as either dogs on leash, dogs off leash, or no dogs. Intended displacement was measured by interviewing visitors. A total of 237 visitors agreed to complete the 15-minute survey out of the 629 visitors that were asked. The majority of visitors interviewed were walkers (63 percent) and dog walkers (25 percent). Reasons for interview refusal introduced systematic biases because bicyclists and joggers were less likely to stop and interview when compared to walkers. This resulted in walkers with and without dogs to be over-represented in the sample compared to actual numbers (Arnberger 2007, 348). A recreational scenario with no dogs depicted resulted in the highest positive intercept while a recreational scenario depicting dogs off-leash resulted in the worst attribute level. Situations with no dogs enticed respondents to continue using the trail, while leashed dogs were regarded as neither contributing to displacement nor keeping users on the trail. Situations with off-leash dogs contributed to displacement of trail users because dogs are not always under control (Arnberger 2007, 349-359). Although this survey was conducted in Austria, it provides useful information regarding visitor use and perception of dogs at recreational settings.

A survey was conducted at 16 locations managed by the City of Boulder Open Space and Mountain Parks in 2006 to evaluate visitor tolerances for 11 off-leash dog behaviors identified as causing potential conflict between visitors. The behaviors included: dogs jumping on, pawing, licking, and sniffing a visitor; dogs approaching uninvited; owners not picking up dog waste; dogs causing wildlife to flee; dogs flushing wildlife; owners repeatedly calling their dog; dogs off trail; and dog "play" such as chasing another dog. For each of the behaviors, respondents indicated the frequency of observing the behavior, their acceptability ratings of the behavior, and their maximum tolerances for a behavior. All behaviors were thought to be a slight to extreme problem. The most problematic behaviors included dog owners not picking up after their dog; dogs causing wildlife to flee; dogs jumping on a visitor; dogs pawing a visitor; and dogs flushing birds. Nearly half of the respondents rated "dogs off trail" and dog "play" as problematic to some extent (Vaske and Donnelly 2007).

In a random telephone survey conducted in 2002 by Northern Arizona University in counties surrounding GGNRA (Marin, San Francisco, San Mateo, and Alameda counties), two questions were asked to obtain input on dog walking regulations in GGNRA (NAU 2002b). The first question asked whether people supported or opposed allowing off-leash dog walking in GGNRA sites. The majority of the people in the four-county area (53 percent) opposed off-leash dog walking and 40 percent supported off-leash dog walking. Majorities of people in all demographic subsets except for dog owners said they opposed off-leash dog walking in GGNRA sites. The second question framed the issue of dog walking regulations within the context of the GGNRA mission. The second question stated, "The mission of GGNRA is the preservation, unimpaired, of the natural and cultural resources and scenic recreation values of the park for present and future generations to enjoy. Knowing this, do you support or oppose allowing off-leash dog walking in GGNRA sites?" After hearing the mission statement, 58 percent of respondents in the four-county area opposed off-leash dog walking and 36 percent supported off-leash dog walking (NAU 2002b, 34). More specifically, of those not strongly opposed to off-leash dog walking in the park, 56 percent of all survey respondents opposed allowing off-leash dog walking on trails used by multiple user groups,

such as hikers, cyclists, and horseback riders (NAU, 2002b, 49). During the GGNRA APNR process, individuals stated that off-leash dog walking should not be allowed within the park because it is inconsistent with the NPS established laws and policies (NPS 2006c, 46). Additional input originated during the GGNRA ANPR process, when 13 percent of the 8,580 comments received in the GGNRA ANPR cited feelings of discomfort around or fear of off-leash dogs and expressed the opinion that off-leash dogs were dangerous to children. A similar percentage also stated that dogs in general make the park unsafe for visitors (NAU 2002a, 10).

Visitors Who Do Not Have a Preference about Dog Walking in GGNRA

Some park visitors do not have a preference regarding whether dogs are on leash, under voice control, or present in the park. There would be no impact on the visitor experience of those who have no preference regarding dogs in a park site. This user group would continue to use the sites throughout GGNRA regardless of whether dogs are present either on leash or under voice control. More than half of the visitors included in the telephone survey conducted by Northern Arizona University (801 visitors or 52 percent) had seen a dog allowed off leash by another visitor in a GGNRA site (NAU 2002b). Of these 801 people, 27 percent (or 217) reported that off-leash dogs added to their experience and 22 percent (or 174) stated dogs off leash detracted from their experience. Of the 801 people who observed dogs off leash, 49 percent (or 393), reported that off-leash dogs had no impact on their experience (NAU 2002b, 17). Because this user group does not have a preference about dog walking in GGNRA, effects resulting from the implementation of a dog management plan on visitor experience for this user group at GGNRA is not included in the analysis.

IMPACTS ASSOCIATED WITH THE MONITORING-BASED MANAGEMENT PROGRAM

The monitoring-based management program has been designed to encourage compliance with sections of the CFR applicable to dog management, and ensure protection of park resources, visitors, and staff. All areas open to dog walking, including VSCAs, would be subject to the monitoring-based management program. It will provide the framework for monitoring and recording observed noncompliance with the applicable sections of the CFR, including the new 36 CFR Part 7 special regulation, and will guide use of park resources to address those violations. Noncompliance with federal regulations related to dog management will be met with a range of management responses. It will also monitor for impacts to natural and cultural resources through monitoring of CFR violations, including behaviors that meet the definition of an uncontrolled or unattended dog, dogs in prohibited areas, and off-leash dogs in areas where leashes, or being crated or confined in a carrier, are required.

Primary management responses will be implemented when the level of compliance is approaching an unacceptable level based on the number or type of violations and/or impacts to resources and/or other visitors. Primary management responses may include focused enforcement of regulations, proposed fine increases, increased outreach and education, a specific training certification program with dog tags for anyone walking or bringing off-leash dogs into the park, time of use restrictions, establishment of buffer zones, fencing, barriers or separations and special use permit (SUP) restrictions. Focused enforcement of regulations, establishment of buffer zones, fencing, and barriers or separations would have negligible impacts on visitors who would prefer to walk dogs at the park. Although areas may be more heavily enforced, the amount of area available to dog walkers would remain the same. An increase in outreach and education including the certification program, increased fines, time of use restrictions, and establishment of buffer zones, fencing, barriers or separations and SUP restrictions would create short-term, minor, adverse impacts on visitors who prefer to walk dogs at the park. These strategies are more restrictive and may limit the amount of time or area that visitors may personally have access to the site to walk dogs. Impacts to visitors who prefer not to have dog walking at the park would be beneficial. The

purpose of the primary management responses is to increase compliance which would help fulfill the objectives of the dog management plan.

Secondary management responses will be implemented when primary management actions do not adequately improve compliance or address impacts of concern. Secondary management responses may include additional training certification program elements required for use of VSCAs, limiting the number of dogs off-leash at any one time, short or long-term closures to dog walking areas, and/or increases in expansion of buffer zones or implementation of other landscape design solutions that include the adjustment of defined VSCAs. A short-term closure is a closure contained in the GGNRA Compendium, typically less than 1–2 years in length. A long-term closure is typically longer than 1–2 years in length, and could require a special regulation. Please see the section “Changes to Plan Implementation” in chapter 2 regarding future compliance needs for long-term closures. Long-term closures could be reopened in the future. Short-term or long-term closures could occur anytime during the life of the plan. Note that primary management responses may continue to apply. Implementing a training certification program for use of VSCAs would restrict dogs that do not respond to voice and sight control from being off-leash. Limiting the number of dogs off-leash at any one time would also restrict some visitors from accessing certain areas during different periods of time throughout the day. Expanding buffer zones, adjusting VSCA areas, and implementing short- to long-term closures would further restrict the amount of area available to visitors with dogs. During short-term closures, dog walkers that typically use the area would be displaced. The short-term closure could last up to 2 years in length. Dog walkers would need to find another available area for dog walking. Impacts from finding a different area may include different means of transportation to the area, increased travel times, and potentially less time available to walk dogs. Impacts to dog walkers from long-term closures would be similar to those of short-term closures; however, the closure would last more than 2 years. Short- and long-term closures would also create the potential for additional user conflicts where dog use is concentrated from the displacement of dog walkers from the closed areas. User conflict could include potential altercations between dog walkers or between dog walkers and non-dog walkers. There would also be the potential for increased dog on dog incidents to occur. Overall, impacts associated with the secondary management responses to visitors who prefer to walk dogs at the park would be short-term to long-term, minor to moderate, and adverse. Impacts to visitors who prefer not to have dog walking at the park would be beneficial. The secondary management strategies could reduce the number of dog walkers within the park or reduce the amount of area dog walking is available. This would create more areas for a no dog experience.

BACKGROUND INFORMATION USED IN IMPACT ANALYSIS

Environmental Justice

The park does not track visitation by race, ethnicity, or income group. However, an NPS servicewide study on race and ethnicity documented that minority populations use national parks for recreation (Floyd 1999, 1). However, minority groups use national parks less when compared to Caucasians. When comparing participation in NPS-relevant outdoor activities there is variation between racial and ethnic groups (Floyd 1999, 11). Based on a U.S. Pleasure Travel Market Study, of the 3,663 minorities surveyed, 31 percent had visited a national or state park. A total of 14,787 Caucasians were also surveyed; 45 percent visiting a national or state park (Floyd 1999, 7). As visitors and potential visitors to parks continue to become more racially and ethnically diverse, the NPS must ensure that its management policies promote equal access to parks for members of all racial, ethnical, and income groups (Floyd 1999, 1).

In the 2002 telephone survey conducted by Northern Arizona University, 41 percent of those who had taken dogs for a walk at GGNRA were racial minorities (Asian, African American, and other) and nearly 13 percent of the visitors had an annual total family income of less than \$50,000 (NAU 2002b, 65). In

comments responding to the ANPR, both those in favor of off-leash dog walking and those against off-leash dog walking argued that their position would benefit minorities (NAU 2002a, 11, 20).

The presence of dogs, whether on or off leash, affects visitor experience. Some visitors enjoy the sight of dogs in the park, and enjoy the ability to interact with other people's dogs. For others, dogs off leash inspire fear, and some people would prefer to avoid encounters with dogs (Roberts 2007, iii). Dog owners who leave their dogs' waste on trails, on beaches, or in picnic areas indirectly affect the aesthetics of the park, affect the visitor experience, and reduce the enjoyment of park visitors (Roberts 2007, iii). Also, intensive use of an area for dog walking results in the odor of urine and dog waste, which can be an especially displeasing experience on a hot summer day. In a study conducted by San Francisco State University in 2007 on the ethnic minority visitor use experience at GGNRA, research found that dogs, especially dog waste, were a problem mentioned by all Latino and Asian groups as a barrier to park visitation (Roberts 2007, iii). Overall, research found that Latinos were the most concerned with dog owners' lack of concern or control of their dogs (Roberts 2007, iii).

In the 2002 telephone survey, when minorities were asked if they supported or opposed off-leash dog walking in GGNRA sites, 39 percent of minorities supported off-leash dog walking, while 51 percent opposed off-leash dog walking. Similarly, a total of 39 percent of low-income individuals were in support of off-leash dog walking, while 53 percent were opposed to it (NAU 2002b, 92–93). Without further information on visitation by minorities and low-income individuals and their preferences regarding off-leash dogs in the park, it is difficult to assess the impacts (adverse and beneficial) on this user group. Therefore, minorities and low-income individuals will be assumed to fall under one or more of the user groups (visitors who would prefer to walk dogs on GGNRA lands, visitors who would prefer not to have dog walking on GGNRA lands, and visitors who do not have a preference regarding dog walking in GGNRA) developed for assessing impacts to visitor use and experience.

The dog walking restrictions proposed in this final plan/EIS could adversely affect some racial, ethnic, and low-income groups. During the public comment period for the draft plan/EIS, commenters discussed the impacts to minority groups if limitations were placed on dog walking at GGNRA. One commenter stated, "Elderly people, special needs people and lower income people are more severely and unfairly punished by these current GGNRA proposals because they will have to travel so far to properly take care of their dogs. They may not be able to do so and may be forced to surrender their beloved companions." (NPS 2011a, Correspondence 3941). Another stated, "All the laws and restrictions being considered for the dogs will impact most the poorer people who have dogs, those who do not have a back yard or a car in which they can drive the dog to some off-leash run area. The result of that will be more abandonment of dogs and more left in shelters who will then be almost inevitably euthanized." (NPS 2011a, Correspondence 4163). These comments underscore a public concern that the proposed regulations may limit dog walking access for some racial, ethnic, and low-income groups who are not able to visit alternative off-leash dog walking areas.

Aesthetics

It is the dog walker's responsibility to comply with the regulation requiring owners to clean up after their pets. However, this compliance does not always occur, and dog waste can be found scattered throughout the high use dog walking areas. During the public comment period for the draft plan/EIS, commenters noted, "I have seen many dog owners let their dogs go to the bathroom on the beach and I often find plastic bags filled with dog waste on the beach" (NPS 2011a, Correspondence 4056). The odor of urine can also be aesthetically displeasing, and when large numbers of dogs urinate in the same area, the associated smell can be very strong on hot summer days. One commenter stated, "Besides their presence, dog-related litter is a significant problem. Though many owners pick up their dog's waste, there are those who do not. In fact nobody cleans up urine. The amount of dog urine, combined with feces that is not

picked-up or remains after most of it is removed causes heavily used areas like Fort Funston to smell, thus making it unpleasant for visitors who are not dog owners” (NPS 2011a, Correspondence 4683). Regardless of the alternative, there is a potential for visitors to continue to not clean up after their dogs. Impacts concerning aesthetics at all park sites where dogs would continue to be allowed would be long term and adverse.

Cumulative Visitor Use Impacts Common to All Alternatives

Past, present, and future project actions in and near GGNRA were considered in combination with each alternative for the cumulative impacts analysis (appendix K). Site-specific and resource-specific projects and actions are discussed in detail under each site and alternative.

Current and reasonably foreseeable future actions positively affecting visitor use and experience in the park are activities that restore and enhance trails, habitats, landscape, and projects that provide safe access to park sites. Many projects also improve the aesthetics of a site, which can benefit the visitor experience. Projects include updating and maintaining infrastructure, improvement of trails, walkways and parking areas; the restoration of habitat and the reestablishment of native plant communities; and projects that are implemented to manage and protect natural resources such as the GGNRA *Fire Management Plan* (NPS 2005b). These efforts have direct benefits to visitor use and experience through better access to sites, improved facilities and signage, and restored natural habitat that can make the aesthetics of the experience better. Completed, current, and future projects that could have beneficial impacts on visitor use and experience within GGNRA sites considered in this final plan/EIS are listed below and discussed under each alternative, as applicable. Although these projects could provide beneficial impacts to the visitor experience, they may not contribute to the cumulative impacts for all visitor groups dependent on considerations of dog management at the site:

- Fort Mason, Baker Beach, Stinson Beach, Battery Spencer, and Kirby Cove (Marin Headlands) have been identified as key sites for increasing accessibility in GGNRA. The range of actions includes improvements in accessibility of picnic areas, camping views, beaches, restrooms, interpretive and wayfinding signs, parking, and accessible routes to these amenities. The project includes site-specific objectives for improving accessibility and the visitor experience. Beneficial impacts to visitor use and experience would result from the improvements to accessibility of these sites for visitors with disabilities.
- *Lower Easkoot Creek Restoration Project* has restored native vegetation and natural floodplain functions improving the aesthetics of the Stinson Beach area, resulting in beneficial impacts on visitors from an improved visual experience (NPS n.d.d, 1).
- Planned trail improvements at Homestead Valley will formalize and designate trails to connect to existing neighborhood trails with the NPS Homestead Valley site, providing better access particularly for visitors from the local neighborhood.
- The *Dias Ridge Restoration and Trail Improvement Project* is working to realign trail segments and restoring degraded habitat on the ridge above Muir Beach. The project is also eliminating unauthorized trails and lessening erosion. These changes will provide better trails and aesthetics, which will result in an enhanced visitor experience. The *Redwood Creek Trail Realignment and Dias Ridge Extension Project EA* is underway. This is a joint project with state parks and includes a 1,300-foot extension of the Dias Ridge Trail on NPS land. The majority of the project is on state lands.
- The *Lower Redwood Creek Interim Flood Reduction Measures and Floodplain Channel Restoration Project* was completed in June 2007 to reduce seasonal flooding on Pacific Way, the access route to Muir Beach, which will improve access to the beach for visitors.

- The *Wetland and Creek Restoration at Big Lagoon, Muir Beach Project* included wetland and creek habitat restoration at the tidal lagoon, making a functional, self-sustaining ecosystem that provides special-status species habitat, and reduced seasonal flooding on Pacific Way. The reduction of flooding provides better access and parking for visitors, enhancing visitor experience. Public education, resource interpretation, and stewardship opportunities are also elements within this project that benefit visitor experience.
- The *Marin Headlands and Fort Baker Transportation Infrastructure Management Plan* provides planning and infrastructure improvements for greater access to the Marin Headlands and Fort Baker areas for visitors to these Marin County park sites.
- The *San Francisco Bay Conservation and Development Commission's Tennessee Valley / Manzanita Connector Pathway Project* upgraded the existing path to meet current *Federal Rehabilitation Act* (FRA) accessibility and design standards for a multi-use pathway, and encouraged area residents to use the trail as an alternative to vehicular travel to reach key destinations
- The addition of a conference center for meetings, infrastructure upgrades and waterfront improvements at Fort Baker, the Cavallo Point Lodge, a resort that also houses the Institute at the Golden Gate, has attracted additional visitors to the park by expanding visitor uses. Native habitat restoration has improved the aesthetics for visitors to Fort Baker.
- The *Alcatraz Ferry Embarkation Project* will evaluate long-term embarkation sites from the San Francisco waterfront at Fort Mason to Alcatraz, as well as ferry service from the San Francisco embarkation site to existing piers at Sausalito and/or Fort Baker.
- The San Francisco Bay Trail improvement at Laguna Street and Marina Boulevard at Fort Mason enhanced pedestrian and bicycle traffic flow, and the landscape was re-vegetated, which improved safety at Fort Mason as well as aesthetics.
- The proposed extension of the Municipal Railway's Historic Streetcar Service would continue the F-line three blocks west from San Francisco Maritime National Historic Park through the Fort Mason Tunnel to the Fort Mason Center at GGNRA, improving public transportation to the area and resulting in the potential for increased visitation to Upper and Lower Fort Mason. The record of decision for the final EIS was signed in 2013.
- The NPS received \$9.75 million in settlement funds from the Cosco Busan oil spill intended to compensate the public for loss of use and enjoyment of beaches, shorelines, and other public or natural resources located within NPS park units in Marin and San Francisco counties. To date, projects completed in Marin County include Visitor Access Improvements at Muir Beach, Rehabilitation of the Rodeo Beach Restroom, Shower and Picnic Area, and South Rodeo Beach Access Improvements. In San Francisco County several projects along the San Francisco Bay Trail have either been completed, are in progress, or planned to start construction in 2017 including McDowell Road slide repair at Fort Mason (complete), rail removal and repaving of the Promenade at Aquatic Park (in progress), and resurfacing of the Crissy Field Promenade (planned start Spring 2017). A study to determine the feasibility of rehabilitating Torpedo Wharf is in progress as is rehabilitation of the O'Shaughnessey Seawall at Ocean Beach, Other smaller projects that have been completed include removal of contaminated debris and grounded vessels from park beaches, and replacement of deteriorating trash bins at coastal sites.
- The Crissy Field Restoration Project restored tidal marsh and dune habitat and added a fully accessible shoreline promenade, trails, boardwalks, overlooks, picnic and seating areas, and bicycle and inline skating paths, resulting in enhanced recreational opportunities for multiple user groups and improved and restored habitat offering improved scenic qualities.

- The Doyle Drive replacement project will make structural and seismic improvements on Doyle Drive and improve accessibility between Presidio Trust lands and GGNRA lands once complete, resulting in beneficial impacts on visitor use. This project is currently under construction.
- Improvements on the Batteries to Bluffs Trail on the bluffs just north of Baker Beach have resulted in improved aesthetics for visitors that may use the Batteries to Bluffs Trail.
- Recent efforts at Lands End included development of a new promenade and overlook, resurfacing/stabilizing segments of trails, eliminating social trails and damage resulting from social trails, replanting native species in local areas, and engaging the local community in park stewardship. This could result in an increase in visitation in the future (GGNPC 2010c, 1).
- The Restoration of the Sutro Dunes involved the replanting of native vegetation, which benefitted aesthetics at the site, improving the experience for all visitors (San Francisco Examiner 2010, 1).
- The *Ocean Beach Erosion Control Project* is developing solutions to beach and coastal bluff erosion problems at Ocean Beach along Highway 1, consistent with the enhancement of natural processes. This would provide a benefit to aesthetics, which would improve visitor experience.
- A new FRA accessible restroom and maintenance facilities are planned at Fort Funston. Although the maintenance facilities would not affect visitor use, the new and FRA accessible restroom facilities would improve facilities offered to visitors (NPS 2010d, 1).
- The PTMP is preserving the Presidio’s cultural, natural, scenic, and recreational resources. The PTMP focused on the long-term preservation of the park, including replacing pavement with green space, improving and enlarging the park’s trail system, restoring stream corridors and natural habitats, and reusing historic structures. Projects are complete and implementation is in progress. This would provide a benefit to aesthetics, which would improve visitor experience.
- The SNRAMP guides natural resource protection, habitat restoration, trail and access improvements, other capital projects, and maintenance activities over the next 20 years. The scope of the SNRAMP includes “natural areas” managed by the SFRPD in San Francisco and Pacifica and addresses dog walking (including on-leash dog walking and off-leash DPAs) in these areas. Implementation of the proposed SNRAMP (SFPD 2011) may further restrict dog access and off-leash areas in San Francisco, including Lake Merced (near Fort Funston and Ocean Beach) and other natural areas (Bernal Hill and McLaren Park, closest to Fort Funston and Ocean Beach). The SNRAMP proposes to close the Lake Merced DPA (loss of 5 acres) and reduce the size of the DPAs at Bernal Hill (by 6 acres) and McLaren Park (by 8.3 acres) (SFPD 2011, 114). On-leash dog walking would still be allowed at these three areas and all other natural areas, but a total of 19.3 acres of off-leash areas would be lost as a result of the SNRAMP. There are 95.2 acres of existing DPAs in San Francisco and the SNRAMP would reduce this total by over 20 percent, leaving 75.9 acres of DPAs to remain (SFPD 2011, 463). In addition to restricting and closing DPAs, there is direction from the San Francisco Recreation and Park Commission not to establish new DPAs until systemwide DPA planning is completed; therefore no new DPAs are proposed as part of SNRAMP (SFPD 2011, 105). Other natural areas DPAs that may be affected from overcrowding by the plan/EIS and SNRAMP include: Buena Vista Park, Corona Heights, Golden Gate Park Woodlands, and Stern Grove/Pine Lake. The combined reductions in off-leash areas proposed by both the SNRAMP and this final plan/EIS could result in an increase in dog use at the remaining natural areas managed by SFRPD.
- The *Mori Point Restoration and Trail Plan* included development of a safe and sustainable trail system to direct visitors away from restoration areas and endangered species habitat that provides a better recreational experiences for visitors, and through habitat restoration that improves aesthetics (NPS 2010e, 1).

- The CalTrans Devil's Slide Tunnel project included the construction of two tunnels beneath San Pedro Mountain to provide a dependable highway between Pacifica and Montara, in San Mateo County. Indirectly, this project would improve visitor access to San Mateo NPS sites.

Conclusion. Overall, these projects, whether short-term or long-term, could directly or indirectly result in an overall beneficial impact on visitor use and experience at the park sites considered in this final plan/EIS. In general, the benefits derived by the various restoration and enhancement projects listed above could provide an enhanced visitor experience for all visitors to GGNRA sites considered in this final plan/EIS. However, many of the beneficial effects to the visitor experience from these projects may not be enough of a benefit to reduce the adverse impacts from dogs on visitors who do not prefer to have dogs at the park. Proposed actions for dog management considered in the alternatives by site may result in different cumulative impacts to visitor use and experience for specific user groups or sites and are discussed below.

IMPACT ANALYSIS FOR ALL ALTERNATIVES

MARIN COUNTY SITES

Stinson Beach

Alternative A: No Action. Currently, on-leash dog walking is allowed in the parking lot and picnic areas but not on Stinson Beach, since it is a designated swimming beach. The total available acreage for on-leash dog walking is approximately 11 acres. Visitor use by local residents walking their dogs is considered moderate to high in the picnic area, and overall visitation, including beachgoers other than dog walkers, can sometimes be high during the spring (March–May) and fall (September–October), especially when good weather coincides with weekends and holidays (table 10). There are very few leash law violations for the parking lot and picnic areas (four violations from 2008 - 2011) (table 12a). However, between 2012 and 2016 a total of 36 leash law violations were recorded (table 12b). Often, visitors with dogs park at the north parking lot and walk their dogs to the adjacent, county-managed Upton Beach, which allows dogs on leash. Compliance with the no-dog walking restriction on the park-managed beach is poor, with over 71 incidents for walking a dog in an area closed to pets (appendix G). Park staff report that lifeguards working on the beach frequently observe dog bites or attacks at Stinson Beach.

During the public comment period for the draft plan/EIS, the public described their use of the beach for off-leash dog walking, even though it is prohibited at Stinson Beach. One commenter stated, “We have long (more than 20 years) owned a house on the water at Stinson Beach, and we have always had a dog. We have never had a problem from dogs on the beach, and we are always happy to observe the happiness of the dogs in that environment and their owners. 90 percent of all owners seem to be aware of their dogs manners, clean up after them, and are cognizant of not letting them chase people, birds, or other wildlife. This is part of the unique pleasure of this area and should remain, as it seems to be doing no harm, for the many years we have participated in it and observed the freedom of dogs and owners at Stinson Beach” (NPS 2011a, Correspondence 2263).

There would be no impact on visitors who would prefer to walk dogs at the park, since visitors would continue to bring their dogs to the picnic area. They would also continue bringing their dogs to the parking lot and walking their dogs down to the county portion of Stinson Beach, which is contiguous with the northern end of the park. In addition, visitors would continue to walk dogs across Stinson Beach to reach the nearby county beach, ignoring the official “no dogs” sign posted on Stinson Beach.

Impacts on visitors who would prefer not to have dog walking at this park site would continue to be long term, minor, and adverse since on-leash dog walking would still be allowed throughout the parking lots

and picnic areas. Visitors would continue to encounter dogs in the picnic areas, parking lots, and on the beach. Some visitors find that dogs can be a nuisance in the picnic areas because they interfere with picnics by sniffing or eating the food (NAU 2002b, 19). Some visitors may even avoid the picnic areas because of the high number of dogs during the summer months. Visitors expecting to experience the park’s beach area without the presence of dogs may encounter dogs, since noncompliance on the beach would be expected to continue.

Under alternative A, no permit system exists for dog walking. At Stinson Beach, commercial dog walking is uncommon. The impacts from commercial dog walkers to visitor experience are similar to the impacts discussed above for both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at this park site.

Cumulative Impacts. Projects and actions in and near Stinson Beach were considered for the cumulative impacts analysis (appendix K). The Lower Easkoot Creek Restoration Project will affect visitor use and experience at or in the vicinity of Stinson Beach. This project has restored native vegetation (NPS n.d.d, 1). The creation and restoration of habitat benefits the aesthetics of the Stinson Beach area, resulting in negligible to beneficial impacts on visitor use and experience for all visitors to Stinson Beach. However, since this is a restoration project and not a project that is directly related to dog management or dog-related visitor use it would not substantially affect the cumulative analysis. Site improvements at Stinson Beach are underway and include providing parking, beach access, picnic access, and restroom access. The park is installing handicapped access routes to public transit, cafes, beaches, and group and individual picnic sites. Beach access would be to the high tide mark with an area to store beach wheel chairs. Handicapped accessible routes are being installed from the parking lot to each activity or key experience at Stinson Beach. Impacts to visitor use and experience would be beneficial for both user groups. Additional beneficial impacts would result from the *Cosco Busan Recreational Use Restoration Projects Plan*, which would focus on shoreline recreation, fishing, boating and other water-based recreation improvements.

The GGNRA interim compendium amendment requires commercial dog walkers to obtain a permit to walk more than three dogs at GGNRA sites, with a limit of six dogs. By reducing congestion and overcrowding, the amendment would have beneficial impacts on visitors who prefer dogs. It would also have beneficial impacts on visitors who prefer not to have dogs at the park. Although this proposed amendment may have adverse impacts on commercial dog walkers who want to walk more than six dogs at GGNRA, commercial dog walking use is considered low at Stinson Beach.

When the impacts associated with alternative A of the dog management plan are combined with the negligible and beneficial impacts from the projects discussed above, cumulative impacts to visitor use and experience would be beneficial for visitors who would prefer dogs at the park and negligible for visitors who do not prefer dogs at the park.

STINSON BEACH ALTERNATIVE A CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
No impact for visitors who would prefer to walk dogs at the park	On-leash dog walking would still be allowed on site	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park	Visitors would still encounter dogs in the picnic area and parking lot and on the beach	Negligible cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative B: NPS Leash Regulation. Alternative B would be the same as alternative A. Impacts on visitors who would prefer to walk dogs in the park would be negligible. Visitors would continue to bring on-leash dogs to the picnic area and parking lots at Stinson Beach. The amount of area available for dog walking would not be changed. Although the dog walking restrictions would be the same as the no-action alternative, the regulations for this alternative would be easier to enforce due to the initial education period that would occur after the new regulations are implemented. This would include educating the public and enforcing the no-dog regulation on the beach. Visitation by this user group at Stinson Beach would remain the same.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Even though the dog walking regulation would remain the same as the no-action alternative, impacts would be expected to be beneficial since the dog regulation would be easier to enforce, resulting in visitors not encountering dogs on the beach and allowing for a beach experience without the presence of dogs. Visitors would continue to encounter on-leash dogs in the parking lot and picnic areas; however, they would not encounter off-leash dogs. Visitation by this user group at Stinson Beach would likely remain the same.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs on leash per person with no permit required. Since commercial dog walking is not common at Stinson Beach, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Stinson Beach were considered for the cumulative impacts analysis (appendix K). The Lower Easkoot Creek Restoration Project will affect visitor use and experience at or in the vicinity of Stinson Beach. This project has restored native vegetation (NPS n.d.d, 1). The creation and restoration of habitat benefits the aesthetics of the Stinson Beach area, resulting in negligible to beneficial impacts on visitor use and experience for all visitors to Stinson Beach. However, since this is a restoration project and not a project that is directly related to dog management or dog-related visitor use it would not substantially affect the cumulative analysis. Site improvements at Stinson Beach are underway and include providing parking, beach access, picnic access, and restroom access. The park is installing handicapped access routes to public transit, cafes, beaches, and group and individual picnic sites. Beach access would be to the high tide mark with an area to store beach wheel chairs. Handicapped accessible routes are being installed from the parking lot to each activity or key experience at Stinson Beach. Impacts to visitor use and experience would be beneficial for both user groups. Additional beneficial impacts would result from the *Cosco Busan Recreational Use Restoration Projects Plan*, which would focus on shoreline recreation, fishing, boating and other water-based recreation improvements.

STINSON BEACH ALTERNATIVE B CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Negligible impacts for visitors who would prefer to walk dogs at the park	On-leash dog walking would still be allowed; on-leash restriction would be strictly enforced and dog walking on the beach would not be tolerated	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	On-leash dog regulation would be strictly enforced and visitors on the beach would no longer encounter dogs	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative C: Emphasis on Multiple Use – Balanced by County. Alternative C would be the same as alternative B: negligible for visitors who would prefer to walk dogs in the park and beneficial for visitors who would prefer not to have dog walking in the park.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be allocated at Stinson Beach, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Stinson Beach, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Under alternative C, the cumulative impacts on visitor use and experience at Stinson Beach would be the same as those under alternative B: beneficial cumulative impact for visitors who would prefer to walk dogs at Stinson Beach and for visitors who would prefer not to have dog walking at the site.

STINSON BEACH ALTERNATIVE C CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Negligible impact for visitors who would prefer to walk dogs at the park	On-leash dog walking would still be allowed; on-leash restriction would be strictly enforced and dog walking on the beach would not be tolerated	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	On-leash dog regulation would be strictly enforced and visitors on the beach would no longer encounter dogs	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, dogs would not be allowed at this site. Impacts on visitors who would prefer to walk dogs at the park would be long term, minor, and adverse. Dogs would no longer be allowed at this site, including the parking lot and picnic areas. Visitors would no longer receive personal benefits from walking dogs at the site. Visitation by this user group at Stinson Beach would decrease.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Since dogs would no longer be allowed at the site, this user group would have the opportunity to experience the site without the presence of dogs. Visitors would no longer encounter dogs while picnicking or recreating at the site. Without the presence of dogs, the picnic area at Stinson Beach would also be more aesthetically pleasing, as dog waste and the smell of urine would not be present at the site. Visitation by this user group at Stinson Beach would likely increase.

Since dogs would not be allowed at this site the impacts to commercial dog walkers are similar to the impacts discussed above for visitors who would prefer to walk dogs at the park.

Cumulative Impacts. Projects and actions in and near Stinson Beach considered for the cumulative impacts analysis would be the same as those described under alternative B. When the impacts associated with these projects are added to the long-term minor adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative D of the dog management plan, cumulative impacts would be long-term, minor, adverse for visitors who would prefer

to walk dogs at Stinson Beach and beneficial for visitors who would prefer not to have dog walking at the site.

STINSON BEACH ALTERNATIVE D CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Visitors would no longer be allowed to walk dogs on site	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking would not be allowed on site; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative E: Most Dog Walking Access / Most Management Intensive. Alternative E would be the same as alternative B: negligible for visitors who would prefer to walk dogs in the park and beneficial for visitors who would prefer not to have dog walking in the park.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be allocated at Stinson Beach, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Stinson Beach, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Under alternative E, the cumulative impacts on visitor use and experience at Stinson Beach would be the same as those under alternative B: beneficial cumulative impacts for visitors who would prefer to walk dogs at Stinson Beach and for visitors who would prefer not to have dog walking at the site.

STINSON BEACH ALTERNATIVE E CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Negligible impacts for visitors who would prefer to walk dogs at the park	On-leash dog walking would still be allowed; on-leash restriction would be strictly enforced and dog walking on the beach would not be tolerated	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	On-leash dog regulation would be strictly enforced and visitors on the beach would no longer encounter dogs	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative F: Preferred Alternative. The preferred alternative would allow on-leash dog walking for up to three dogs in the parking lots and two picnic areas (approximately 9.2 acres). No dog walking would be permitted within the picnic area between the south and overflow parking areas. Dog walking would not be allowed on the beach since it is a designated swimming beach. An on-leash dog walking path would be created to allow access to Upton Beach (an adjacent, Marin County-managed beach that allows on-leash dog walking) from the north corner of the north parking lot. This path would total less than one tenth of a mile.

Impacts on visitors who would prefer to walk dogs at the park would be beneficial. Visitors would continue to bring on-leash dogs to the two designated picnic area and parking lots at Stinson Beach, though the on-leash picnic area would be reduced by about 1.8 miles. The addition of less than one tenth of a mile of path to Upton Beach would allow legal on-leash dog walking access to the county portion of the beach. Although the dog walking restrictions would be the similar to the no-action alternative, the regulations for this alternative would be easier to enforce due to the initial education period that would occur after the new regulations are implemented. This would include educating the public and enforcing the no-dog regulation on the beach. Visitation by this user group at Stinson Beach would remain the same.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. The picnic area between the south and overflow parking areas would be a no dog area and would allow for visitors to enjoy the area without the presence of dogs. Impacts would also be beneficial since the dog walking regulation would be easier to enforce, resulting in visitors not encountering dogs on the beach and allowing for a beach experience without the presence of dogs. Visitors would continue to encounter on-leash dogs in the parking lot and two designated picnic areas; however, they would not encounter off-leash dogs. Visitation by this user group at Stinson Beach would likely remain the same.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be allocated at Stinson Beach, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking activity at Stinson Beach is not common, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Stinson Beach were considered for the cumulative impacts analysis (appendix K). The main project that will affect visitor use and experience at or in the vicinity of Stinson Beach is the Lower Easkoot Creek Restoration Project (NPS n.d.d, 1). This project has restored native vegetation, which, in turn, has enhanced the aesthetics of the Stinson Beach area, resulting in beneficial impacts on visitor use and experience for all visitors to the site. However, this project does not directly affect dog management or dog-related visitor use it does not alter the initial impact assessment of the preferred alternative. Site improvements at Stinson Beach are underway and include improving or providing parking, beach access, picnic access, and restroom access. The park is installing handicapped access routes to public transit, cafes, beaches, and group and individual picnic sites. Beach access would be to the high tide mark with an area to store beach wheel chairs. Handicapped accessible routes are being installed from the parking lot to each activity or key experience at Stinson Beach. Impacts to visitor use and experience would be beneficial for both user groups. Additional beneficial impacts would result from the *Cosco Busan Recreational Use Restoration Projects Plan*, which will focus on shoreline recreation, fishing, boating and other water-based recreation improvements.

When the impacts associated with the preferred alternative of the dog management plan are combined with the negligible and beneficial impacts from the projects discussed above, cumulative impacts to visitor use and experience would be beneficial both for visitors who would prefer dogs at the park and for visitors who do not prefer dogs at the park.

STINSON BEACH PREFERRED ALTERNATIVE F CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Beneficial impacts for visitors who would prefer to walk dogs at the park	On-leash dog walking would still be allowed; on-leash restriction would be strictly enforced and dog walking on the beach would not be allowed; legal access to walk dogs on-leash on Upton Beach (managed by Marin County) would be available on a path from the north end of the north parking lot	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	On-leash dog regulation would be strictly enforced and visitors on the beach would no longer encounter dogs; dog-free picnic area available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Homestead Valley

Alternative A: No Action. Dog walking under voice control or on leash is allowed throughout the Homestead Valley site, but most users follow existing trails. Approximately 1.2 mile of trails are used for off-leash and on-leash dog walking. The site is primarily used by local residents and dog walking is generally considered a low use activity (table 10). There were no dog-related incidents recorded for this site from 2008 through 2011 or 2012 through 2016.

Under the no-action alternative, there would be no impact on the visitor experience of visitors who would prefer to walk dogs at the park. Dog walkers would continue to allow their dogs off leash and under voice control throughout the site. Having dogs off leash and playing throughout the area may add to the park experience for visitors with dogs. No change in visitation by this user group at Homestead Valley would be expected.

Impacts on visitors who would prefer to visit the park without dog walking would be long term, minor, and adverse. Visitors would continue to encounter both on-leash dogs and dogs under voice control at this site. Even though this site is primarily used by local dog walkers, other visitors to this park site are currently not able to have a no-dog experience. Visitation by this user group at Homestead Valley would have the potential to decrease due to the presence of dogs.

Under alternative A, no permit system exists for dog walking. At Homestead Valley, commercial dog walking is uncommon. The impacts from commercial dog walkers to visitor experience are similar to the impacts discussed above for both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at this park site.

Cumulative Impacts. Projects and actions in and near Homestead Valley were considered for the cumulative impacts analysis (appendix K). The main action that would affect visitor use and experience is the planned trail improvements at Homestead Valley to formalize and designate trails to connect to the existing neighborhood trails. Beneficial impacts would be expected on visitor use and experience from this action for visitors to Homestead Valley that originate in the neighboring community. Trail improvements and connectivity with the local neighborhoods would be expected to enhance visitor accessibility and potentially increase use from the local population. As a result, visitation for either user group could increase. Cumulatively, the benefit of improved access to Homestead Valley could enhance the beneficial effects for visitors who would prefer to walk dogs at this park site under alternative A (no impact). For visitors who would prefer not to have dog walking at Homestead Valley, although Homestead Valley has traditionally been a low use area, trail improvements could result in additional

encounters with dogs, including unexpected encounters with dogs off leash. However, because the area is a low use area, and used primarily by the neighboring residents, a possible increase in use by neighboring individuals is not expected to be great enough to alter the intensity of the expected long-term, minor adverse impacts from the implementation of alternative A. For visitors who prefer not to have dog walking at the site and who may visit from outside of the adjacent neighborhood, the improved accessibility for the local neighborhood and the potential for increased use by the neighboring population could also result in an increase in encounters with dogs.

The proposed GGNRA interim compendium amendment would require commercial dog walkers in San Francisco and Marin counties to obtain a permit to walk more than three dogs at GGNRA sites, with a limit of six dogs. By reducing congestion and overcrowding, the amendment would have beneficial impacts on visitors who prefer dogs. It would also have beneficial impacts on visitors who prefer not to have dogs at the park. Although this proposed amendment may have adverse impacts on commercial dog walkers who want to walk more than three dogs at GGNRA, commercial dog walking use is considered low at Homestead Valley.

Overall, when the beneficial impacts from the improved trail access and proposed interim compendium are combined with the lack of impacts to visitors who would prefer to walk dogs at the park under alternative A, there would be beneficial cumulative impacts to these visitors. The beneficial cumulative impacts resulting from the projects mentioned above are not expected to be great enough to alter the intensity of impact on visitors who would prefer not to have dog walking at the park from long-term, minor, and adverse under alternative A, resulting in negligible cumulative impacts to these visitors.

HOMESTEAD VALLEY ALTERNATIVE A CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
No impact for visitors who would prefer to walk dogs at the park	Off-leash dog walking would still be allowed on site	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park	Visitors would still encounter dogs off leash throughout the site	Negligible cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative B: NPS Leash Regulation. Under alternative B, on-leash dog walking would be allowed only on Homestead Fire Road and on neighborhood connector trails (Homestead Trail and Homestead Summit Trail) that would be designated in the future. A total of approximately 1.2 miles of trail would be available for on-leash dog walking, the same amount of trail mileage allowed in alternative A. On-leash dog walking would be based on an allowed 6-foot dog leash.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor, and adverse. Dogs would no longer be allowed to run off leash throughout the entire site. Although the same amount of trails would remain available for dog walking, dogs would be required to be walked on-leash. Adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. Some visitors in this user group may find a different park to exercise their dogs off leash. As a result, visitation by local residents may decrease slightly in this area.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Since dogs would be required to be on leash, visitors would no longer encounter dogs under voice control. Visitors who would prefer not to have dog walking at the park may feel more comfortable recreating at

Homestead Valley since dogs would now be restrained on leash. In addition, dog walking would be restricted to the fire road and connecting trails (in the future). Visitation by this user group at Homestead Valley would have the potential to increase.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs on leash per person with no permit required. Since commercial dog walking at Homestead Valley is not common, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Homestead Valley were considered for the cumulative impacts analysis (appendix K). The main action that would affect visitor use and experience is the planned trail improvements at Homestead Valley to formalize and designate trails to connect to the existing neighborhood trails. Beneficial impacts would be expected on visitor use and experience from this action for visitors to Homestead Valley that originate in the neighboring community. Trail improvements and connectivity with the local neighborhoods would be expected to enhance visitor accessibility and potentially increase use from the local population. As a result, visitation for either user group could increase. Cumulatively, the benefit of improved access to Homestead Valley could enhance the beneficial effects for visitors who would prefer to walk dogs at this park site under alternative A (no impact). For visitors who would prefer not to have dog walking at Homestead Valley, although Homestead Valley has traditionally been a low use area, trail improvements could result in additional encounters with dogs, including unexpected encounters with dogs off leash. However, because the area is a low use area, and used primarily by the neighboring residents, a possible increase in use by neighboring individuals is not expected to be great enough to alter the intensity of the expected long-term, minor adverse impacts from the implementation of alternative A. For visitors who prefer not to have dog walking at the site and who may visit from outside of the adjacent neighborhood, the improved accessibility for the local neighborhood and the potential for increased use by the neighboring population could also result in an increase in encounters with dogs.

When the impacts associated with these projects are added to the long-term minor adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative B of the dog management plan, cumulative impacts would be negligible for visitors who would prefer to walk dogs at Homestead Valley and beneficial for visitors who would prefer not to have dog walking at the site.

HOMESTEAD VALLEY ALTERNATIVE B CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would be allowed on leash and in designated areas	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in restricted areas	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative C: Emphasis on Multiple Use – Balanced by County. Alternative C would have the same dog walking restrictions as alternative B, and impacts would also be the same: long term, minor, and adverse for visitors who would prefer to walk dogs in the park and beneficial for visitors who would prefer to visit the park without the presence of dogs.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be granted at Homestead Valley, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Homestead Valley, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Under alternative C, the cumulative impacts at this park site would be the same as those under alternative B: negligible impacts on visitors who would prefer to walk dogs at this park site and beneficial impacts on visitors who would prefer not to have dog walking at this park site.

HOMESTEAD VALLEY ALTERNATIVE C CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would be allowed on leash and in designated areas	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in restricted areas	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, on-leash dog walking would be allowed only on Homestead Fire Road; dogs would be prohibited in other areas on site. A total of approximately 0.5 mile of trails would be available for on-leash dog walking. On-leash dog walking would be based on an allowed 6-foot dog leash.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor, and adverse. Dogs would no longer be allowed to run off leash throughout the entire site. Dog walking would be required to be on leash and the area available for dog walking would be reduced by approximately 0.75 miles. Since the majority of the users of Homestead Valley live in the surrounding communities and many visitors use the connector trails to access Homestead Fire Road, adverse impacts on dog walkers would be expected. Adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. Limiting dog walking areas would reduce these visitors’ enjoyment of this site. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. Some visitors in this user group may find a different park to exercise their dogs off leash. As a result, visitation by local residents who walk dogs at Homestead Valley may decrease slightly.

Impacts on visitors who would prefer not to have dog walking at the site would be beneficial. Since dogs would be required to be on leash, visitors would no longer encounter dogs under voice control. Visitors who would prefer not to have dog walking at the park may feel more comfortable recreating at Homestead Valley since dogs would now be restrained on leash. In addition, dog walking would be restricted to the fire road; therefore, a no-dog experience would be available on 0.75 mile of trail for this user group. Visitation by this user group at Homestead Valley would have the potential to increase.

No commercial dog walking or permits to walk more than three dogs by private or commercial dog walkers would be allowed under alternative D. Private dog walkers would be allowed up to three dogs. Since commercial dog walking is not common at Homestead Valley, it is likely that prohibiting

commercial dog walking from this site would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Homestead Valley considered for the cumulative impacts analysis would be the same as those described under alternative B. When the impacts associated with these projects are added to the long-term minor adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative D of the dog management plan, cumulative impacts would be negligible for visitors who would prefer to walk dogs at Homestead Valley and beneficial for visitors who would prefer not to have dog walking at the site.

HOMESTEAD VALLEY ALTERNATIVE D CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would be allowed on leash and in designated areas	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in restricted areas; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative E: Most Dog Walking Access / Most Management Intensive. Alternative E would have the same dog walking restrictions as alternative B, and impacts would also be the same: long term, minor, and adverse for visitors who would prefer to walk dogs in the park and beneficial for visitors who would prefer to visit the park without the presence of dogs.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be granted at Homestead Valley, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Homestead Valley, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Under alternative E, the cumulative impacts at this park site would be the same as those under alternative B: negligible impacts on visitors who would prefer to walk dogs at this park site and beneficial impacts on visitors who would prefer not to have dog walking at this park site.

HOMESTEAD VALLEY ALTERNATIVE E CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would be allowed on leash and in designated areas	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in restricted areas	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative F: Preferred Alternative. The preferred alternative includes on-leash dog walking for up to three dogs on Homestead Fire Road from Lattie Lane to Panoramic Highway, on Homestead Summit Trail from Homestead Fire Road to the junction with Homestead Trail at Four Corners, and on the

Homestead Trail from Four Corners to the GGNRA boundary. In addition, on-leash dog walking would also be available on the Eagle Trail to allow a loop trail. A total of approximately 1.3 miles of trail would be available for on-leash dog walking. On-leash dog walking would be based on an allowed 6-foot dog leash.

Impacts on visitors who would prefer to walk dogs at this site would be long term, minor, and adverse. Dogs would not be allowed to run off leash throughout the entire site, (which is allowed but not generally practiced currently). Although the amount of trails available for dog walking including a loop trail would increase, dogs would be required to be walked on-leash. Adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. Limiting dog walking areas would reduce visitors' enjoyment of this site. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. Some visitors in this user group may find a different park to exercise their dogs off leash (see chapter 4, "Impacts on Nearby Dog Walking Areas Outside of GGNRA by Alternative"). As a result, visitation by local residents with dogs may decrease slightly in this area.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Since dogs would be required to be on leash, visitors would no longer encounter dogs under voice control. Visitors who would prefer not to have dog walking at the park may feel more comfortable recreating at Homestead Valley since dogs would now be restrained on leash. In addition, dog walking would be restricted to the fire road and connecting trails. Visitation by this user group at Homestead Valley would have the potential to increase.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be granted at Homestead Valley, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Homestead Valley, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Trail improvements are proposed at Homestead Valley to formalize and designate trails to connect to the existing neighborhood trails. Beneficial impacts would be expected on visitor use and experience from this action for visitors to Homestead Valley that originate in the neighboring community. Trail improvements and connectivity with the local neighborhoods would be expected to enhance visitor accessibility and potentially increase use from the local population. As a result, visitation for either user group could increase.

Cumulatively, the benefit of the proposed interim compendium and improved access to Homestead Valley a low use area used primarily by the neighboring residents, is not expected to be measurable and would not alter the intensity of the expected impacts from the implementation of alternative F for either user group: negligible for visitors who would prefer to have dog walking and beneficial for those visitors who would prefer not to have dog walking at the site.

HOMESTEAD VALLEY PREFERRED ALTERNATIVE F CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would be allowed on leash and in designated areas	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in restricted areas	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alta Trail/Orchard Fire Road/Pacheco Fire Road

Alternative A: No Action. Under the no-action alternative, dog walking under voice control would continue on the Alta Trail and fire roads at this site from Marin City to Oakwood Valley. A total of approximately 2 miles would remain available for on-leash or off-leash dog walking. Local and commercial dog walking use of the Alta Trail is high due to the direct access to the site, less than 2 miles off Highway 101, with sufficient parking at the end of a public street. Park staff members have observed that commercial dog walkers sometimes walk as many as 12 dogs at a time, resulting in 30 to 50 dogs in the area during the periods of heaviest use. This heavy use has resulted in dog waste and urine odors offensive to other user groups such as runners, bicyclists, and hikers. Violations are low for this site, with only 13 occurring from 2008 through 2011, and no dog bites/attacks were reported during this time (table 13a). Between 2012 and 2016, a total of 19 dog-related incidents were recorded with the majority of violations for dogs being in closed areas (table 13b). During the public comment analysis for the draft plan/EIS, one commenter described conditions at Alta Trail: “As someone who lives near the entrance to Alta, my family and I are always surrounded by dogs off-leash as we try to walk or jog along the trail. The trail is often used by ‘professional’ dog-walkers, who take many off-leash dogs of various sizes on the trail, without any voice control. Many of these dogs are intimidating types of dogs” (NPS 2011a, Correspondence 4111).

There would be no impact on visitors who would prefer to walk dogs at the site. Visitors would continue to walk dogs under voice control on the trail and fire roads throughout the site. Having dogs off leash and playing throughout the area may add to the park experience for this user group. Commercial dog walking use would continue to be high in this area, with no limit to the number of dogs walked per person. The high visitation by this user group would remain the same.

Impacts on visitors who would prefer not to have dog walking at the park would continue to be long term, moderate, and adverse. Under the no-action alternative, visitors would continue to encounter a high number of dogs under voice control throughout the site. Currently, it is difficult and unusual for visitors at this park site to have a no-dog experience. In addition, the high number of commercial dog walkers at this site with off-leash dogs would continue to discourage other user groups from recreating at this site. Visitation by this user group would likely decrease and remain low.

Under alternative A, no permit system exists for dog walking; however, commercial dog walkers frequently use Alta Trail, Orchard Fire Road, and Pacheco Fire Road for dog walking activities. Under alternative A, there would be no impacts from commercial dog walking on visitors who would prefer to walk dogs at the park. Visitors would continue to walk more than three dogs per walker and some visitors would continue to enjoy the presence of the multiple dogs. Impacts from commercial dog walking on visitors who would prefer not to have dog walking at the park would be long term, moderate, and adverse. Some visitors may feel uncomfortable recreating in this area if multiple dog walkers have more than three dogs under voice control at one time.

Cumulative Impacts. There is only one known project or action that has had, is currently having, or will have effects on visitor use and experience in the vicinity of this park site. The proposed GGNRA interim compendium amendment would require commercial dog walkers in San Francisco and Marin counties to obtain a permit to walk more than three dogs at GGNRA sites, with a limit of six dogs. By reducing congestion and overcrowding, the amendment would have beneficial impacts on visitors who prefer dogs. It would also have beneficial impacts on visitors who prefer not to have dogs at the park. This proposed amendment may have adverse impacts on commercial dog walkers who want to walk more than three dogs at GGNRA, particularly as commercial dog walking use is considered high at Alta Trail. The cumulative impacts to visitors overall from the proposed interim compendium agreement are anticipated to be negligible.

When the negligible cumulative impacts of the proposed interim compendium amendment are combined with the lack of impacts to visitors who prefer to walk their dogs at the park, there would be no impact on the visitor use and experience for visitors who would prefer to walk dogs at the park under alternative A, and a negligible cumulative impact on this user group. Impacts on the visitor use and experience of visitors who would prefer not to have dog walking at the park would be long term, moderate, and adverse, and cumulative impacts would also be long term, moderate adverse under alternative A.

ALTA TRAIL/ORCHARD FIRE ROAD/PACHECO FIRE ROAD ALTERNATIVE A CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
No impact for visitors who would prefer to walk dogs at the park	Off-leash dog walking would still be allowed on site	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term moderate adverse impacts for visitors who would prefer not to have dog walking at the park	Visitors would encounter off-leash dogs throughout the site; site is high use area for dog walkers	Long term moderate adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative B: NPS Leash Regulation. Alternative B would allow on-leash dog walking on the Alta Trail to Orchard Fire Road, Orchard Fire Road, and Pacheco Fire Road. A total of approximately 1.6 miles of trails would be available for on-leash dog walking. On-leash dog walking would be based on a 6-foot leash.

Impacts on visitors who would prefer to walk dogs at the park would be long term, moderate, and adverse. Dogs would no longer be allowed to run off leash throughout the entire site. Dog walking would be required to be on leash and the amount of area available for dog walking would be reduced by approximately 0.3 mile and would remove the option of connecting to Oakwood Valley Trail, where on-leash dog walking would also be allowed. Although visitors would still be allowed to exercise their dogs, adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. Limiting dog walking areas would reduce visitors’ enjoyment of this site. In addition, it would be difficult for some visitors, particularly those that are disabled or elderly with mobility issues, to adequately control their dogs on leash. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. Impacts would be moderate due to the high use of this site by dog walkers. Some visitors in this user group may find a different park to exercise their dogs off leash. As a result, visitation by local residents with dogs may decrease slightly in this area.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Since dogs would be required to be on leash, visitors would no longer encounter dogs under voice control. Visitors who would prefer not to have dog walking at the park may feel more comfortable recreating at this site

since dogs would now be restrained on leash. In addition, beneficial impacts would result from a reduction of dog waste at the site since dog walkers are more likely to clean up after their pets when walking them on leash. Visitation by this user group at Alta Trail, Orchard Fire Road, and Pacheco Fire Road would have the potential to increase.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs on leash per person with no permit required. Since commercial dog walking at Alta Trail, Orchard Fire Road, and Pacheco Fire Road is a high use activity, impacts on visitors who would prefer to walk dogs at the park would be long term, minor, and adverse. Commercial and private dog walkers looking to walk more than three dogs would have to move to a different location, outside the park. A reduction in the number of dogs walked per person would result in beneficial impacts for visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. There are no known projects that would impact the resources at Alta Trail/Orchard Fire Road or Pacheco Fire Road. As such, cumulative impacts would be the same as direct impacts: long-term, moderate, and adverse for visitors who would prefer to walk dogs at Alta Trail, and beneficial impacts for visitors who would prefer not to have dog walking at the site.

ALTA TRAIL/ORCHARD FIRE ROAD/PACHECO FIRE ROAD ALTERNATIVE B CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate adverse impacts for visitors who would prefer to walk dogs at the park	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in designated areas	Long-term moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in restricted areas	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative C: Emphasis on Multiple Use – Balanced by County. Alternative C would have the same dog walking restrictions as alternative B, and impacts would also be the same: long term, moderate, and adverse for visitors who would prefer to walk dogs at the park and beneficial for visitors who would prefer not to have dog walking at the park.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. Permits would be allowed in Alta Trail, Orchard Fire Road, and Pacheco Fire Road, and the permit may restrict use by time and area. Since commercial dog walking activity at this site is high, impacts on visitors who would prefer to walk dogs off-leash or walk more than six dogs at the park would be long term, minor, and adverse. Commercial and private dog walkers looking to walk more than six dogs would have to move to a different location, outside the park. Additional impacts on visitor use and experience would result from the permit application process. A reduction in the number of dogs walked per person would result in beneficial impacts for visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. There are no known projects that would impact the resources at Alta Trail/Orchard Fire Road or Pacheco Fire Road. As such, cumulative impacts would be the same as direct impacts: long-term moderate adverse on visitors who would prefer to walk dogs at the park and beneficial impacts on visitors who would prefer not to have dog walking at the park.

ALTA TRAIL/ORCHARD FIRE ROAD/PACHECO FIRE ROAD ALTERNATIVE C CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate adverse impacts for visitors who would prefer to walk dogs at the park	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in designated areas	Long-term moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in restricted areas	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, dogs would be prohibited at this site.

Impacts on visitors who would prefer to walk dogs at the park would be long term, moderate to major, and adverse since this is a high use area for dog walkers. Visitors would no longer be able to play, run, and socialize with their dogs at this park site. Also, visitors would no longer receive personal benefits from walking dogs at the site. Since dog walking would no longer be allowed at this site, visitors from this user group would likely begin to use a different park site or an area outside park boundaries for dog walking. Visitation by this user group would decrease immensely.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Prohibiting dogs would allow multiple user groups (runners, bicyclists, hikers) to experience the Alta Trail and Orchard and Pacheco fire roads without the presence of dogs. Visitation by this user group would increase at this site.

Since dogs would not be allowed at this site the impacts to commercial dog walkers are similar to the impacts discussed above for visitors who would prefer to walk dogs at the park.

Cumulative Impacts. There are no known projects that would impact the resources at Alta Trail/Orchard Fire Road or Pacheco Fire Road. As such, cumulative impacts would be the same as direct impacts: long-term moderate to major adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative D of the dog management plan, cumulative impacts would be long-term, moderate to major, and adverse for visitors who would prefer to walk dogs at Alta Trail, and beneficial for visitors who would prefer not to have dog walking at the site.

ALTA TRAIL/ORCHARD FIRE ROAD/PACHECO FIRE ROAD ALTERNATIVE D CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate to major adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would not be allowed at this site; site is high dog walking use area	Long-term moderate to major adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking would no longer be allowed at the site	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative E: Most Dog Walking Access / Most Management Intensive. A total of approximately 2.9 miles of trails would be available for on-leash dog walking under alternative E. On-leash dog walking

would be allowed on the Alta Trail to the junction with the Morning Sun Trail, and on the Orchard and Pacheco fire roads.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor to moderate, and adverse. Although over an additional mile of trail would be available for dog walking, dogs would no longer be allowed to run off leash at this site. Adverse impacts would be expected for visitors who enjoy seeing and playing with dogs off leash. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. In addition, it would be difficult for some visitors, particularly those that are disabled or elderly with mobility issues, to adequately control their dogs on-leash. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. Some visitors in this user group may find a different park in order to exercise their dogs off leash. As a result, visitation by local residents with dogs may decrease slightly in this area.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Although over an additional mile of trail would be available to dog walkers, dogs would no longer be allowed under voice and site control. Visitors who would prefer not to have dog walking at the park may feel more comfortable recreating at this site since dogs would now be restrained on leash. In addition, beneficial impacts would result from a reduction of dog waste at the site since dog walkers are more likely to clean up after their pets when walking them on leash. Visitation by this user group at Alta Trail, Orchard Fire Road, and Pacheco Fire Road would have the potential to increase as a result of the leash requirement.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs, and the permit may restrict use by time and area. Permits would be allowed at this site. Since commercial dog walking at Alta Trail, Orchard Fire Road, and Pacheco Fire Road is high, impacts on visitors who would prefer to walk dogs off-leash or walk more than six dogs at the park would be long term, minor, and adverse. Commercial and private dog walkers looking to walk more than six dogs would have to move to a different location, outside the park. Additional impacts on visitor use and experience would result from the permit application process. A reduction in the number of dogs walked per person would result in beneficial impacts on visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. There are no known projects that would impact the resources at Alta Trail/Orchard Fire Road or Pacheco Fire Road. As such, cumulative impacts would be the same as direct impacts: long-term moderate adverse on visitors who would prefer to walk dogs at the park and beneficial impacts on visitors who would prefer not to have dog walking at the park.

ALTA TRAIL/ORCHARD FIRE ROAD/PACHECO FIRE ROAD ALTERNATIVE E CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in designated areas	Long-term minor to moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in restricted areas	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative F: Preferred Alternative. The preferred alternative would allow on-leash dog walking on the Alta Trail from the entrance at Donahue Street to the junction with the Morning Sun Trail and on the

Orchard and Pacheco Fire Roads from the Alta Trail to the park boundary. A total of approximately 2.5 miles of trail would be available for on-leash dog walking. On-leash dog walking would be based on a 6-foot leash.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor to moderate, and adverse. Although an additional half mile of trail would be available for dog walking, dogs would no longer be allowed to run off leash at the site. Adverse impacts would be expected for visitors who enjoy seeing and playing with dogs off leash. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. In addition, it would be difficult for some visitors, particularly those that are disabled or elderly with mobility issues, to adequately control their dogs on-leash. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. Some visitors in this user group may find a different park to exercise their dogs off leash. As a result, visitation by local residents may decrease slightly in this area.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Although over an additional 0.5 mile of trail would be available to dog walkers, dogs would no longer be allowed under voice and site control. Visitors who would prefer not to have dog walking at the park may feel more comfortable recreating at this site since dogs would now be restrained on leash. In addition, beneficial impacts would result from a reduction of dog waste at the site since dog walkers are more likely to clean up after their pets when walking them on leash. Visitation by this user group on Alta Trail, Orchard Fire Road, and Pacheco Fire Road would have the potential to increase as a result of the leash requirement.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs on the Alta Trail from the Donahue Street entrance to the junction of Orchard Fire Road. The permit may restrict use by time and area. Since commercial dog walking use at Alta Trail, Orchard Fire Road, and Pacheco Fire Road is high, impacts on visitors who would prefer to walk dogs off-leash or walk more than six dogs at the park would be long term, minor, and adverse. Commercial and private dog walkers looking to walk more than six dogs would have to move to a different location, outside the park. Additional impacts on visitor use and experience would result from the permit application process. A reduction in the number of dogs walked per person would result in beneficial impacts for visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. There are no known projects that would impact the resources at Alta Trail/Orchard Fire Road or Pacheco Fire Road. As such, cumulative impacts would be the same as direct impacts: long-term minor to moderate adverse impacts to visitors who prefer to walk their dogs at the park, there would be a long-term minor to moderate adverse cumulative impact on this user group. Impacts on the visitor use and experience of visitors who would prefer not to have dog walking at the park would be beneficial under alternative F.

ALTA TRAIL/ORCHARD FIRE ROAD/PACHECO FIRE ROAD PREFERRED ALTERNATIVE F CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in designated areas	Long-term minor to moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in restricted areas	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Oakwood Valley

Alternative A: No Action. Under alternative A, dogs are currently allowed under voice control or on leash on the Oakwood Valley Fire Road and Oakwood Valley Trail from junction with Fire Road to junction with Alta Trail, totaling approximately 1.3 miles. An additional approximately 0.8 mile of on-leash dog walking is also available on the Oakwood Valley Trail from the trailhead to the junction with Oakwood Valley Fire Road. However, many dog walkers allow their dogs off leash as soon as they exit their cars along Tennessee Valley Road. On-leash dog walking is allowed on the lower section of the Oakwood Valley Trail. This site is heavily used by local hikers, runners, bicyclists, and horseback riders and moderately used by dog walkers (table 10). The majority of use occurs in the morning, as observed by park staff. The number of commercial dog walkers using this site is relatively low. Oakwood Valley is not patrolled as frequently as some other heavily used sites, so ticketed incidents here are lower than other popular off-leash sites; only one incident for having a dog within a closed area was reported from 2008 through 2011 (table 14a). Between 2012 and 2016, a total of 8 dog-related violations were recorded (table 14b). During the public comment period of the draft plan/EIS, commenters described conditions at Oakwood Valley, “The dog use on Alta and Oakwood Valley is the PRIME recreational use of these trails, no question about it - 75% of persons using it have dogs (off leash mostly, not including commercial walkers)” (NPS 2011a, Correspondence 1573) and “I walk my dogs on Oakwood Trail daily. Most of the people on this trail have dogs and most unleashed” (NPS 2011a, Correspondence 2116).

Under the no-action alternative, there would be no impacts on the visitor experience of people who would prefer to walk dogs at the park. Dog walkers would continue to allow their dogs off leash throughout the site. Having dogs off leash and playing throughout the area may add to the positive park experience for visitors with dogs. No change in visitation by this user group would be expected at Oakwood Valley.

Impacts on visitors who would prefer to visit the park without dogs would be long term, minor, and adverse. Visitors would continue to encounter both on-leash dogs and dogs under voice control at this site. Some visitors may feel uncomfortable when encountering dogs. Visitors from this user group are currently not able to have a no-dog experience. Visitation by this user group at Oakwood Valley would have the potential to decrease due to the presence of dogs.

Under alternative A, no permit system exists for dog walking. At Oakwood Valley, commercial dog walking is uncommon. The impacts from commercial dog walkers to visitor experience are similar to the impacts discussed above for both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at this park site.

Cumulative Impacts. There is only one known project or action that has had, is currently having, or will have effects on visitor use and experience in the vicinity of this park site. The proposed GGNRA interim compendium amendment would require commercial dog walkers in San Francisco and Marin counties to obtain a permit to walk more than three dogs at GGNRA sites, with a limit of six dogs. By reducing congestion and overcrowding, the amendment would have beneficial impacts on visitors who prefer dogs. It would also have beneficial impacts on visitors who prefer not to have dogs at the park. Although this proposed amendment may have adverse impacts on commercial dog walkers who want to walk more than three dogs at GGNRA, commercial dog walking use is considered low at Oakwood Valley.

There would be no impact on the visitor use and experience of visitors who would prefer to walk dogs at the park under alternative A, and long term, minor, and adverse to visitors who would prefer not to have dog walking at the park under alternative A. The cumulative impacts associated with the proposed interim compendium agreement are not expected to be great enough to alter the intensity of the expected impacts from the implementation of alternative A for either user group. Therefore, cumulative impacts would be

negligible for visitors who would prefer to walk dogs, and long-term, minor, adverse for visitors who would prefer not to have dog walking at the park.

OAKWOOD VALLEY ALTERNATIVE A CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
No impact for visitors who would prefer to walk dogs at the park	Off-leash dog walking would still be allowed on site	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park	Visitors would still encounter dogs throughout the site; site is moderate use area for dog walking	Long-term minor adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative B: NPS Leash Regulation. Under alternative B, on-leash dog walking would be allowed on the loop created by Oakwood Valley Fire Road and Oakwood Valley Trail. A total of approximately 1.6 miles of trail would be available for on-leash dog walking. No dogs would be allowed on the Oakwood Valley Trail from the intersection with the Oakwood Valley Fire Road to the intersection with the Alta Trail. On-leash dog walking would be based on an allowed 6-foot dog leash.

Impacts on visitors who would prefer to walk dogs at the park would be long term, moderate, and adverse. Dogs would no longer be allowed to run off leash at the site. Dog walking would be required to be on leash and the area available for dog walking would be reduced by approximately 0.5 mile. Adverse impacts would be expected for visitors who enjoy seeing and playing with dogs off leash. Impacts would be moderate since this site is moderately used by dog walkers. During the public comment period one commenter stated, “I’m not a dog owner ... The Oakwood Valley Trail is a short easy trail that is ideal for the “brisk 30-minute walk” recommended to people like me to keep in shape in our 70s, and the many dogs are an additional pleasure... I see no reason to change the off-leash rules for this trail. Oakwood Valley is a valuable social site in southern Marin and should stay that way” (NPS 2011a, Correspondence 1212). Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. In addition, it would be difficult for some visitors, particularly those that are disabled or elderly with mobility issues, to adequately control their dogs on-leash. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. Some visitors in this user group may find a different park to exercise their dogs off leash. As a result, visitation by local residents with dogs may decrease slightly in this area.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Since dogs would be required to be on leash, visitors would no longer encounter dogs under voice control. Visitors who would prefer not to have dog walking at the park may feel more comfortable recreating at Oakwood Valley under this alternative since dogs would be restrained on leash. In addition, dog walking would be restricted to the fire road between the Alta Trail and the intersection of the Oakwood Valley Trail, creating an area for a no-dog experience. Visitation by this user group at Oakwood Valley would have the potential to increase.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs on leash per person with no permit required. Since commercial dog walking at Oakwood Valley is uncommon, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. There are no known projects that would impact the resources at Oakwood Valley. As such, cumulative impacts would be the same as direct impacts: long-term moderate adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative B of the dog management plan, cumulative impacts would be long-term, moderate, and adverse for visitors who would prefer to walk dogs at Oakwood Valley, and beneficial for visitors who would prefer not to have dog walking at the site.

OAKWOOD VALLEY ALTERNATIVE B CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate adverse impacts for visitors who would prefer to walk dogs at the park	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed in designated areas	Long-term moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in restricted areas; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative C: Emphasis on Multiple Use – Balanced by County. For alternative C, an approximately 0.8 mile VSCA is proposed for walking under voice control or on leash on the Oakwood Valley Fire Road to the junction with Oakwood Valley Trail. The VSCA would include double gates at both ends (to separate this use from other users of the site) and continuous fencing to protect sensitive habitat. On-leash dog walking is proposed on Oakwood Valley Trail from the junction with the Oakwood Valley Fire Road to a new gate at Alta Trail. This stretch of trail is approximately 0.5 mile long.

Impacts on visitors who would prefer to walk dogs at the park would be negligible. Even though the amount of area available to off-leash dogs would be reduced by approximately 0.5 mile, an area for dog walking under voice and sight control would be available in a VSCA. The VSCA would still allow an area for both exercise and socialization for dogs under voice and sight control. Visitors would have the option of taking dogs to the VSCA or on-leash dog walking section of the trail. Therefore, dogs that do not receive enough exercise or become aggressive when restrained by a leash would still have the opportunity to walk under voice and sight control within the VSCA. It is unlikely that there would be a decrease in visitation by visitors who would prefer to walk dogs at this park site.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Although dogs would still be allowed off leash in a portion of the site, visitors would be able to have a no-dog experience along the Oakwood Valley Trail. In addition, dogs would be required to be on leash along a portion of Oakwood Valley Fire Road, so visitors may feel more comfortable recreating in this area since dogs would be restrained. The proposed fence to enclose the VSCA may adversely impact the aesthetics of the site. During the public comment period, commenters stated the following, "...the idea of fencing Oakwood Valley would despoil that park area far more than the current dog-walking" (NPS 2011a, Correspondence 856) and "Continuous fencing on Oakwood Valley trail will significantly diminish enjoyment of the natural environment for all users including non-dog accompanied humans and horseback riders using this trail" (NPS 2011a, Correspondence 2118). Although the fence has the potential to adversely impact the aesthetics of the area, overall, impacts to visitors who do not enjoy dogs would be beneficial because of the assurance of a no-dog experience. Visitation by this user group at Oakwood Valley would have the potential to increase.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a

permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be allocated at Oakwood Valley, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking activity at Oakwood Valley is uncommon, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. There are no known projects that would impact the resources at Oakwood Valley. As such, cumulative impacts would be the same as direct impacts: negligible impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative C of the dog management plan, cumulative impacts would be negligible for visitors who would prefer to walk dogs at Oakwood Valley, and beneficial for visitors who would prefer not to have dog walking at the site.

OAKWOOD VALLEY ALTERNATIVE C CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Negligible impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice and sight control would be available; dogs would be prohibited on a portion of the Oakwood Valley Trail	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking would be limited to the fire road; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative D: Most Protective of Resource Protection and Visitor Safety. Alternative D would have the same dog walking restrictions as alternative B, and impacts would also be the same: long-term moderate adverse impacts for visitors who would prefer to walk dogs and beneficial impacts for visitors who would prefer not to have dog walking at the park.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D. Private dog walkers would be allowed up to three dogs. Since commercial dog walking is not common at Oakwood Valley, it is likely that prohibiting commercial dog walking from this site would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. There are no known projects that would impact the resources at Oakwood Valley. As such, cumulative impacts would be the same as direct impacts: long-term moderate adverse on visitors who would prefer to walk dogs at the park and beneficial impacts on visitors who would prefer not to have dog walking at the park.

OAKWOOD VALLEY ALTERNATIVE D CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate adverse impacts for visitors who would prefer to walk dogs at the park	Off-leash dog walking would no longer be available; on-leash dog walking would be allowed only in designated areas	Long-term moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only on the fire road; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative E: Most Dog Walking Access / Most Management Intensive. Alternative E would have the same dog walking requirements as alternative C, but unlike alternative C fencing around the VSCA would be noncontinuous and only where needed. Impacts would also be the same as alternative C: negligible for visitors who would prefer to walk dogs at the park and beneficial for visitors who would prefer not to have dog walking at the park.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be allocated at Oakwood Valley, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking activity at Oakwood Valley is uncommon, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. There are no known projects that would impact the resources at Oakwood Valley. As such, cumulative impacts would be the same as direct impacts: negligible on visitors who would prefer to walk dogs at the park and beneficial impacts on visitors who would prefer not to have dog walking at the park.

OAKWOOD VALLEY ALTERNATIVE E CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Negligible impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice and sight control would be offered in a VSCA; dogs would not be allowed on a portion of the Oakwood Valley Trail	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking would be limited to fire road and a portion of the trail; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative F: Preferred Alternative. The preferred alternative would allow a total of approximately 1.3 miles of on-leash dog walking. On-leash dog walking would be allowed on the Oakwood Valley Fire Road and on the Oakwood Valley Trail from the junction with the fire road to the junction with the Alta Trail. On-leash dog walking would also be allowed on the Rhubarb Trail from the access path from the Tamalpais Community Service District property at the park boundary east to Tennessee Valley Road.

Impacts on visitors who would prefer to walk dogs at the park would be long term, moderate, and adverse. Dogs would no longer be allowed to run off leash at the site. Dog walking would be required to be on leash and the area available for dog walking would be reduced by 0.8 mile. Adverse impacts would be expected for visitors who enjoy seeing and playing with dogs off leash. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. In addition, it would be difficult for some visitors, particularly those that are disabled or elderly with mobility issues, to adequately control their dogs on-leash. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. The addition of on-leash dog walking on the Rhubarb Trail would allow visitors to access the Oakwood Valley Fire Road from the nearby neighborhood without having to drive. This addition is beneficial for dog walkers; however, adverse impacts would still occur from not permitting dogs under voice and sight control. Some visitors in this user group may find a different park to exercise their dogs off leash. As a result, visitation by local residents with dogs may decrease slightly in this area.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Since dogs would be required to be on leash, visitors would no longer encounter dogs under voice control. Visitors who would prefer not to have dog walking at the park may feel more comfortable recreating at Oakwood Valley under this alternative since dogs would be restrained on leash. In addition, dog walking would be restricted to the Rhubarb Trail, fire road between the Alta Trail and the intersection of the Oakwood Valley Trail, creating an area for a no-dog experience. Visitation by this user group at Oakwood Valley would have the potential to increase.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be allocated at Oakwood Valley, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking activity at Oakwood Valley is uncommon, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. There are no known projects that would impact the resources at Oakwood Valley. As such, cumulative impacts would be the same as direct impacts: long-term moderate adverse impacts on the visitor use and experience of visitors who would prefer to walk dogs at the park, and beneficial impacts to visitors who would prefer not to have dog walking at the park. The cumulative impacts associated with the proposed interim compendium agreement are not expected to be great enough to alter the intensity of the expected impacts from the implementation of the preferred alternative for either user group. Therefore, under alternative F cumulative impacts would be long-term, moderate, and adverse for visitors who would prefer to walk dogs, and beneficial for visitors who would prefer not to have dog walking at the park.

OAKWOOD VALLEY PREFERRED ALTERNATIVE F CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate adverse impacts for visitors who would prefer to walk dogs at the park	Off-leash dog walking would no longer be available; on-leash dog walking would be allowed only in designated areas	Long-term moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking would be limited to the fire road; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Muir Beach

Alternative A: No Action. At Muir Beach, the bridge and path to the beach are available for on-leash dog walking, totaling 0.1 mile. The approximately 0.2 mile-long beach is open to dogs under voice control or on-leash dogs. Dogs are required to be on leash in the parking lot. The lagoon and creek are currently closed to dogs. Muir Beach receives heavy visitation by beachgoers and walkers on the weekends and moderate to high use on the weekdays. Dog walking use is considered low to high at this site (table 10). During the park visitation study in 2011, 5.5 percent of visitors were dog walkers. Park staff members have observed that some residents adjacent to Muir Beach allow their dogs to roam freely off leash and unsupervised along the beach. Dogs have also been documented in areas closed to pets (i.e., Redwood Creek) at Muir Beach (appendix G). Overall, the number of leash law violations is low for this site, with only nine occurring in 2008 through 2011; no dog bites or attacks were reported during this period (table 15a). Between 2012 and 2016, a total of 18 dog-related incidents were recorded (table 15b).

Under the no-action alternative, there would be no impact on the visitor experience of visitors who would prefer to walk dogs at the park. Dog walkers would continue to allow their dogs off leash throughout the site. Visitors would continue to enjoy exercising, socializing, and playing with the dogs on the beach. Having dogs off leash and playing throughout the area may add to the park experience for visitors with dogs. Residents adjacent to the beach would continue to allow their dogs to roam freely off leash without supervision. No change in visitation by this user group at Muir Beach would be expected.

Impacts on visitors who would prefer to visit the park without dogs would be long term, moderate, and adverse. Visitors would continue to encounter off-leash dogs at this site, some of which would be under voice control and some unsupervised. Visitors and parents with small children may be uncomfortable with dogs running off leash while children are at play in the same area. Some visitors may find dogs urinating and defecating on the beach and in the water objectionable. A no-dog experience would continue to be unavailable at this site. During the public comment period on the draft plan/EIS, commenters noted how the abundance of dogs off-leash detracts from the enjoyment of Muir Beach. One commenter described conditions at Muir Beach that would continue under the no-action alternative, "I am a Berkeley resident who frequently visits GGNRA sites for hiking outings on weekends. I have been hiking and picnicking at Muir Beach since 1978 and have seen many changes in that area over the decades. Most disturbing to me is the overabundance of dogs off leash. I no longer feel comfortable picnicking or even sitting on the sand, as I've watched too many dogs urinate and defecate on the beach, with no owner in sight. Even when an owner is responsibly monitoring their dog's behavior, there's not much an owner can do when a dog has a loose bowel movement that cannot be picked up with a plastic baggie and tossed in a garbage can. In addition, dogs off leash are a danger to toddlers and small children" (NPS 2011a, Correspondence 1066). The adverse impacts would be moderate due to the high use of this site and the relatively small size of the beach. Visitation by this user group at Muir Beach would have the potential to decrease due to the presence of off-leash dogs.

Under alternative A, no permit system exists for dog walking. At Muir Beach, commercial dog walking is uncommon. The impacts from commercial dog walkers to visitor experience are similar to the impacts discussed above for both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at this park site.

Cumulative Impacts. Projects and actions in and near Muir Beach were considered for the cumulative impacts analysis (appendix K). In addition to the *Cosco Busan Recreational Use Restoration Projects Plan* described above under alternative A for Stinson Beach, the following is a discussion of projects that have had, are currently having, or will have effects on visitor use and experience at or in the vicinity of Muir Beach.

The *Dias Ridge Restoration and Trail Improvement Project* realigned trail segments and restored degraded areas on the ridge above Muir Beach. Specifically, the project removed unauthorized trails and replaced or rehabilitated poorly aligned and eroding trail segments (NPS 2009i, 1). At Muir Beach, the *Lower Redwood Creek Interim Flood Reduction Measures and Floodplain Channel Restoration Project* was completed in July 2007 to help reduce flooding on Pacific Way, which provides access to the beach. Another project at this site, the *Wetland and Creek Restoration at Big Lagoon, Muir Beach Project*, included wetland and creek restoration at the tidal lagoon. The project restored a functional, self-sustaining ecosystem re-creating habitat for special-status species, reducing flooding on Pacific Way, which improved public access. This project also provides public education and resource interpretation at the site that benefits visitor experience, and provided enhanced aesthetics for visitors.

The proposed GGNRA interim compendium amendment would require commercial dog walkers in San Francisco and Marin counties to obtain a permit to walk more than three dogs at GGNRA sites, with a limit of six dogs. By reducing congestion and overcrowding, the amendment would have beneficial

impacts on visitors who prefer dogs. It would also have beneficial impacts on visitors who prefer not to have dogs at the park. Although this proposed amendment may have adverse impacts on commercial dog walkers who want to walk more than three dogs at GGNRA, commercial dog walking use is considered low at Muir Beach.

The restoration of habitat benefits the aesthetics of the Muir Beach area and results in negligible to beneficial impacts on visitor use and experience for all visitors to Muir Beach. However, since these projects are focused on habitat restoration and flood reduction they are not directly related to dog management or dog-related visitor use and would not substantially affect the cumulative analysis for alternative A. The proposed interim compendium amendment is directly related to dog management and would have overall beneficial cumulative impacts, but these impacts are not expected to be great enough to alter the intensity of the expected impacts from the implementation of the preferred alternative for either user group. Therefore, cumulative effects would not be measurable or perceptible on alternative A and no change in impact level or intensity is expected on either user group: negligible for those who prefer to walk dogs and long-term, moderate and adverse for those visitors who prefer not to have dogs at the site.

MUIR BEACH ALTERNATIVE A CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
No impact for visitors who would prefer to walk dogs at the park	Off-leash dog walking would still be allowed on site	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term moderate adverse impacts for visitors who would prefer not to have dog walking at the park	Visitors would still encounter dogs under voice control on the beach; site is a high use area	Long-term moderate adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative B: NPS Leash Regulation. Alternative B would allow on-leash dog walking in the parking area, the Muir Beach Trail including the pedestrian bridge, the portion of Kaashi Way from the bridge to the beach, and the beach. On-leash dog walking would be available on approximately 0.4 mile of trails and the 0.2 mile-long beach. No dog walking under voice control would be allowed. The lagoon and creek are currently closed to dogs.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor to moderate, and adverse. Impacts would be minor to moderate because dogs would no longer be allowed to run off leash along the beach and this site has potential to receive moderate to high use on good weather days. The practice by local residents of allowing their dogs to roam the beach unsupervised would be addressed by law enforcement staff; allowing a dog to be off-leash would be citable. During the public comment period, commenters described the importance of Muir Beach and walking their dogs off-leash. One commenter stated, “Walking my dog on Muir Beach and letting her run free in the surf is one of the freedoms I treasure” (NPS 2011a, Correspondence 21). Adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. In addition, it would be difficult for some visitors, particularly those that are disabled or elderly with mobility issues, to adequately control their dogs on-leash. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. Some visitors in this user group may find a different park to exercise their dogs off leash. As a result, visitation by local residents with dogs may decrease slightly in this area.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Since dogs would be required to be on leash, visitors would no longer encounter dogs under voice control. Visitors who would prefer not to have dog walking at the park may feel more comfortable recreating at Muir Beach since dogs would be restrained on leash. The beach may become more aesthetically pleasing to these visitors, as dog walkers would be more likely to clean up after their pets when walking them on leash. Visitation by this user group at Muir Beach would have the potential to increase.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs on leash per person with no permit required. Since commercial dog is not common at Muir Beach, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Muir Beach were considered for the cumulative impacts analysis (appendix K). In addition to the *Cosco Busan Recreational Use Restoration Projects Plan* described above under alternative A for Stinson Beach, the following is a discussion of projects that have had, are currently having, or will have effects on visitor use and experience at or in the vicinity of Muir Beach.

The *Dias Ridge Restoration and Trail Improvement Project* realigned trail segments and restored degraded areas on the ridge above Muir Beach. Specifically, the project removed unauthorized trails and replaced or rehabilitated poorly aligned and eroding trail segments (NPS 2009i, 1). At Muir Beach, the *Lower Redwood Creek Interim Flood Reduction Measures and Floodplain Channel Restoration Project* was completed in July 2007 to help reduce flooding on Pacific Way, which provides access to the beach. Another project at this site, the *Wetland and Creek Restoration at Big Lagoon, Muir Beach Project*, included wetland and creek restoration at the tidal lagoon. The project restored a functional, self-sustaining ecosystem re-creating habitat for special-status species, reducing flooding on Pacific Way, which improved public access. This project also provides public education and resource interpretation at the site that benefits visitor experience, and provided enhanced aesthetics for visitors.

Since impacts from these projects would not substantially affect the cumulative analysis for alternative B, no change in impact level or intensity is expected on either user group: long-term, minor to moderate adverse for those who prefer to walk dogs and beneficial for those visitors who prefer not to have dogs at the site.

MUIR BEACH ALTERNATIVE B CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in restricted areas	Long-term minor to moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in restricted areas	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative C: Emphasis on Multiple Use – Balanced by County. Alternative C would have the same dog walking restrictions as alternative B, and impacts would also be the same: long term, minor to moderate, and adverse for visitors who would prefer to walk dogs at the park and beneficial for visitors who would prefer not to have dog walking at the park.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be issued for Muir Beach, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Muir Beach, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Cumulative impacts would be the same as alternative B: long-term, minor to moderate adverse for those who prefer to walk dogs and beneficial for those visitors who prefer not to have dogs at the site.

MUIR BEACH ALTERNATIVE C CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in restricted areas	Long-term minor to moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in restricted areas	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative D: Most Protective of Resource Protection and Visitor Safety. In the vicinity of Muir Beach, alternative D would allow on-leash dog walking in the parking area and on the Muir Beach Trail adjacent the parking lot. The pedestrian bridge to the beach and the beach itself would be closed to dogs; the tidal lagoon and Redwood Creek, which are currently closed to dogs, would remain so.

Impacts on visitors who would prefer to walk dogs at the park would be long term, moderate, and adverse. Impacts would be moderate in intensity since visitors would no longer be able to walk their dogs on the beach and this area currently receives low to, on good weather days, high use by dog walkers. Adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. Residents adjacent to the beach would no longer be allowed to have their dogs outside their yards or roaming the beach unsupervised. During the public comment period on the draft plan/EIS, commenters expressed the importance of the community at Muir Beach, “One of the joys of going to the Big Beach in Muir Beach is watching the dogs of our community at play. This is a joy that brings happiness to all concerned -- four and two legged. We live in a tiny village in a rural setting there is absolutely no need to restrict out pets in this way. I've lived here for over eight years and have never seen dog feces left by their owners for others to deal with. Our dog owners are responsible” (NPS 2011a, Correspondence 737). Other commenters stated, “Our dogs are always greeted and fussed over by strangers on the beach. The dogs on Muir Beach help to make the beach a friendly, joyful experience for everyone. They create a feeling of neighborhood and community and are an indelible part of the experience of the beach” (NPS 2011a, Correspondence 1017) and “Muir Beach is one of the few places dogs are allowed to go and just be dogs. I'm not a dog owner, but I do live here and visit the beach regularly. The dogs look very happy when here and they rarely cause trouble. Watching them makes me happy too! Muir Beach is small and usually very quiet with few people on the beach most days of the week” (NPS 2011a, Correspondence 1301). Limiting dog walking areas would reduce visitors’ enjoyment of this site. Visitation by this user group would decline as most visitors would begin to use other areas within or outside the park for recreation with dogs. One commenter stated, “this is an ideal spot for dogs, and i've never seen an owner

not clean up for his/her dog. i would never come here if i couldn't bring my dog” (NPS 2011a, Correspondence 353).

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Since dogs would no longer be allowed on the beach, visitors would be able to experience this area without the presence of dogs. During the public comment period for the draft plan/EIS, one commenter stated, “We have had the experience, on more than one occasion [at multiple Marin County GGNRA sites, including Muir Beach], of off-leash dogs growling and baring their teeth and charging at us and our on-leash dog who was not evoking a challenge. We have children and felt that their safety was in immediate peril... It has been hard to relax at Muir Beach with so many dogs running loose, including dogs of breeds that are statistically more likely to seriously injure people. I want to be able to go to this beach and relax and not worry about being bothered by dogs nor worry about my children's safety. It's sad, but this is the one and only reason I haven't gone to this beach in a long time, and I should be able to go and feel safe since this is our nearest beach.” (NPS 2011a, Correspondence 3548). These visitors, especially those with small children, would feel more comfortable recreating at this site. In addition, the area would become more aesthetically pleasing since dog waste would no longer be present on the beach. Visitors who wish to walk along the proposed Muir Beach Trail would only encounter on-leash dogs, which would allow better control of the dogs by the owners. Visitation by this user group would likely increase, especially in the beach area of the site.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D. Private dog walkers would be allowed up to three dogs. Since commercial dog walking is not common at Muir Beach, it is likely that prohibiting commercial dog walking from this site would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Muir Beach considered for the cumulative impacts analysis would be the same as those described under alternative B. Since impacts from these projects would not substantially affect the cumulative analysis for alternative D, no change in impact level or intensity is expected on either user group: long-term, moderate adverse for those who prefer to walk dogs and beneficial for those visitors who prefer not to have dogs at the site.

MUIR BEACH ALTERNATIVE D CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would be allowed on leash and in designated areas; no dogs would be allowed on the beach	Long-term moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking would no longer be allowed on the beach, allowing a no-dog experience	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative E: Most Dog Walking Access / Most Management Intensive. In the vicinity of Muir Beach, the parking area, the Muir Beach Trail, the pedestrian bridge, and the portion of Kaashi Way from the bridge to the beach would be open to on-leash dog walking. The portion of Muir Beach south of Kaashi Way would be a designated VSCA open to dogs under voice and sight control. This VSCA would be approximately less than 0.1 mile in length. Dogs would be prohibited on the remainder of the beach north of Kaashi Way. A total of approximately 0.4 mile of trails would be available for on-leash dog walking. The lagoon and creek would remain closed to dogs. Alternative E would provide a balance for all user groups, including dog walkers.

Impacts on visitors who would prefer to walk dogs at the beach would be long term, minor, and adverse. Impacts on these visitors would occur since dogs would no longer be allowed on the entire beach; however, impacts would be minimal because the VSCA would provide a separate area to enjoy recreation activities associated with dogs under voice and sight control and to allow dogs to exercise and socialize. The practice by local residents of allowing their dogs to roam the beach unsupervised would be addressed by law enforcement staff; allowing a dog to be off-leash would be citable. Visitors would have the option of taking dogs to the VSCA or on-leash dog walking areas. Therefore, dogs that do not receive enough exercise or become aggressive when restrained by a leash would still have the opportunity to walk under voice and sight control within the VSCA. Although dogs would still be allowed off leash, impacts would be minor and adverse due to reducing the VSCA by 0.1 mile in length and the low to high use by dog walkers. Limiting dog walking areas would reduce visitors’ enjoyment of this site. It is expected that visitation by this user group would stay the same due to the availability of the VSCA.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. The restriction of dogs to a portion of the beach would allow visitors to have an area along the beach for a park experience without the presence of dogs. These visitors, especially those with small children, would feel more comfortable recreating in this portion of the site. In addition, the area would become more aesthetically pleasing since dog waste would no longer be present on the beach. Visitation by this user group at Muir Beach would likely increase.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be issued for Muir Beach, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking activity at Muir Beach is not common, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Muir Beach considered for the cumulative impacts analysis would be the same as those described under alternative B. Since impacts from these projects would not substantially affect the cumulative analysis for alternative E, no change in impact level or intensity is expected on either user group: long-term, minor adverse for those who prefer to walk dogs and beneficial for those visitors who prefer not to have dogs at the site.

MUIR BEACH ALTERNATIVE E CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would be allowed on leash and in designated areas; a VSCA would be available, but half the beach would not allow dogs	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would be allowed in designated areas; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative F: Preferred Alternative. The preferred alternative would allow on-leash dog walking on the beach, connecting bridge, Muir Beach Trail, and on Kaashi Way from the junction with the Muir Beach Trail to the junction with Pacific Way. During periods when there is a connection between the lagoon and the ocean, dog walking on Muir Beach would not be permitted. Fencing would be installed along the dunes and lagoon as needed. A total of approximately 0.9 mile of trails and the approximately

0.2 mile-long beach would be available for on-leash dog walking. The lagoon and creek would remain closed to dogs.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor to moderate, and adverse. Impacts would be minor to moderate and adverse because dogs would no longer be allowed to run off leash along the beach and Muir Beach can receive moderate use by dog walkers on good weather days. The practice by local residents of allowing their dogs to roam the beach unsupervised would be addressed by law enforcement staff; allowing a dog to be off-leash would be citable. Adverse impacts would be expected for visitors and local residents who enjoy seeing and playing with dogs off leash. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. In addition, it would be difficult for some visitors, particularly those that are disabled or elderly with mobility issues, to adequately control their dogs on-leash. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. Some visitors in this user group may find a different park to exercise their dogs off leash. As a result, visitation by local residents with dogs may decrease slightly in this area.

Impacts on visitors or any local residents who would prefer not to have dog walking at the park would be beneficial. Since dogs would be required to be on leash, visitors would no longer encounter dogs under voice control. Visitors who would prefer not to have dog walking at the park may feel more comfortable recreating at Muir Beach since dogs would be restrained on leash. The beach may become more aesthetically pleasing to these visitors, as dog walkers would be more likely to clean up after their pets when walking them on leash. Visitation by this user group at Muir Beach would have the potential to increase.

Under alternative F, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be issued for Muir Beach, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Muir Beach, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Muir Beach were considered for the cumulative impacts analysis (appendix K). In addition to the *Cosco Busan Recreational Use Restoration Projects Plan* described above under alternative A for Stinson Beach, the following is a discussion of projects that have had, are currently having, or will have effects on visitor use and experience at or in the vicinity of Muir Beach.

The *Dias Ridge Restoration and Trail Improvement Project* realigned trail segments and restored degraded areas on the ridge above Muir Beach (NPS 2009i, 1). At Muir Beach, the Lower Redwood Creek Interim Flood Reduction Measures and Floodplain Channel Restoration Project was completed in July 2007 to help reduce flooding on Pacific Way. Another project at this site, the Wetland and Creek Restoration at Big Lagoon, Muir Beach Project, included wetland and creek restoration at the tidal lagoon. The project restored a functional, self-sustaining ecosystem that re-created habitat for special-status species, reduced flooding on Pacific Way, and provided enhanced aesthetics for visitors to experience.

The restoration of habitat benefits the aesthetics of the Muir Beach area and results in negligible to beneficial impacts on visitor use and experience for all visitors to Muir Beach. However, these projects are focused on habitat restoration and flood reduction and are not directly related to dog management or dog-related visitor use and would not substantially affect the cumulative analysis for the preferred

alternative. The proposed interim compendium amendment is directly related to dog management and would have overall beneficial cumulative impacts, but these impacts are not expected to be great enough to alter the intensity of the expected impacts from the implementation of the preferred alternative for either user group. Therefore, cumulative effects would not be measurable or perceptible for the preferred alternative and no change in impact level or intensity is expected on either user group: long-term, minor to moderate, adverse for those who prefer to walk dogs and beneficial for those visitors who prefer not to have dogs at the site.

MUIR BEACH PREFERRED ALTERNATIVE F CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate, adverse impacts for visitors who would prefer to walk dogs at the park	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in restricted areas	Long-term minor to moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in restricted areas	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Rodeo Beach/South Rodeo Beach

Alternative A: No Action. Currently, dogs are allowed on leash or under voice control on Rodeo Beach and South Rodeo Beach (totaling approximately 0.6 mile length of beach total), but are prohibited in Rodeo Lagoon for overall resource protection. On-leash dog walking is allowed on the footbridge and access trail to the beach (approximately 0.2 mile total). Rodeo Beach/South Rodeo Beach is a moderate to high use area for surfers, walkers, and beachgoers, with low to moderate visitor use by dog walkers (tables 10 and 11). During the 2008 visitor use survey at Rodeo Beach, 8.1 percent of users were dog walkers (table 11) (IEC 2011, 10). Park staff have observed surfers leaving their dogs tied to their vehicles or roaming the beach unattended while the surfers are in the water. It is common for schoolchildren and GGNRA partner education groups, such as the Headlands Institute and the Young Men’s Christian Association Point Bonita, to use the beach for educational purposes. Dog-related incidents are low (30 incidents from 2008 through 2011 and 26 incidents from 2012 through 2016). There were only three dog bites/attacks at this site likely because the concentration of users is dispersed along the long beach (table 16a).

There would be no impact on visitors who would prefer to walk dogs at this park site. Visitors would continue to have the opportunity to walk their dogs under voice control on both beaches. Having dogs off leash and playing throughout the area may add to the park experience for visitors with dogs. No change in visitation by this user group at Rodeo Beach/South Rodeo Beach would be expected.

Impacts on visitors who would prefer to visit the park without dogs would be long term, minor, and adverse. Visitors would continue to encounter dogs under voice control at this site. These visitors and parents with small children may be uncomfortable with dogs running around off leash while children are at play in the same area. During the public comment period for the draft plan/EIS, one commenter stated, “Dogs and their owners have reduced my activities and visits to this beach. After my youngest son was bitten by a dog (not at Rodeo) he was afraid of dogs for a few years and we stayed away from beaches that permitted dogs off leash” (NPS 2011a, Correspondence 2280). Some visitors may find dogs urinating and defecating on the beach and in the water objectionable. One commenter stated, “I regularly find poop bags right on the beach or right off the trails. Many times these poop bags are just across the bridge from the "pet waste" container. Some owners don't even bother to pick up after their dogs. I can't walk barefoot at the beach without watching my every step to make sure I don't walk on pet waste” (NPS 2011a,

Correspondence 1681). Some trails throughout the site would remain areas where visitors could experience the site without the presence of dogs; however, a no-dog experience would not be available on either beach. Visitation by this user group at Rodeo Beach/South Rodeo Beach would have the potential to decrease due to the presence of dogs.

Under alternative A, no permit system exists for dog walking. Commercial dog walking is not common at Rodeo Beach or South Rodeo Beach, but has recently begun to increase. The impacts from commercial dog walkers to visitor experience are similar to the impacts discussed above for both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at this park site.

Cumulative Impacts. Projects and actions in and near Rodeo Beach and South Rodeo Beach were considered for the cumulative impacts analysis (appendix K). The *Cosco Busan Recreational Use Restoration Projects Plan*, has rehabilitated the Rodeo Beach restroom, shower and picnic area, and improved the South Rodeo Beach access providing beneficial impacts to park visitors at this site. The proposed GGNRA interim compendium amendment would require commercial dog walkers in San Francisco and Marin counties to obtain a permit to walk more than three dogs at GGNRA sites, with a limit of six dogs. By reducing congestion and overcrowding, the amendment would have beneficial impacts on visitors who prefer dogs. It would also have beneficial impacts on visitors who prefer not to have dogs at the park. Although this proposed amendment may have adverse impacts on commercial dog walkers who want to walk more than three dogs at GGNRA, commercial dog walking use is considered low at Rodeo Beach/South Rodeo Beach.

When the impacts associated with alternative A of the dog management plan are combined with the beneficial impacts from the projects discussed above, cumulative impacts to visitor use and experience would be negligible for visitors who would prefer dogs at the park and long-term, minor, adverse for visitors who do not prefer dogs at the park.

RODEO BEACH/SOUTH RODEO BEACH ALTERNATIVE A CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
No impact for visitors who would prefer to walk dogs at the park	Off-leash dog walking would still be allowed on site and on both beaches	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park	Visitors would still encounter dog walking off leash throughout the site	Long-term minor adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative B: NPS Leash Regulation. Alternative B would allow on-leash dog walking on Rodeo Beach, South Rodeo Beach, and on the footbridge and access trail to the beaches. A total of approximately 0.2 mile of trails and approximately 0.6 mile length of beach would be available for on-leash dog walking. On-leash dog walking would be based on an allowed 6-foot dog leash. The lagoon is currently closed to people and dogs.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor to moderate, and adverse. Dogs would no longer be allowed to run off leash on the beaches, as dog walking would be required to be on leash. The amount of area available for dog walking would remain the same. Adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. During the public comment period for the draft plan/EIS, one commenter stated, “It is the one place she can run relatively free. It would be a shame to bar well behaved dogs from such an experience” (NPS 2011a, Correspondence 1405). Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. In addition, it would be difficult for some visitors, particularly those that are

disabled or elderly with mobility issues, to adequately control their dogs on-leash. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. Some visitors in this user group may find a different park to exercise their dogs off leash. As a result, visitation by local residents with dogs may decrease slightly in this area.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Since dogs would be required to be on leash, visitors would no longer encounter dogs under voice control. One commenter described her experience at Rodeo Beach with school groups, “I work with environmental education in the Marin Headlands.... We often have dogs (friendly or not) run up to and in the middle of student groups. This can be very distracting as well as upsetting for students who are afraid of dogs (which happens fairly often). It can be scary when a group is seated at the beach and a dog comes running up at the students' eye level. At times we have even had some aggressive dogs approach our groups. Additionally, it is challenging to teach students' to respect their parks when dogs are running into and along the edges of the lagoon, after birds or surfers or chasing other wildlife” (NPS 2011a, Correspondence 2974). Visitors who would prefer not to have dog walking at the park may feel more comfortable recreating at Rodeo Beach/South Rodeo Beach since dogs would now be restrained on leash. The beach may become more aesthetically pleasing to these visitors, as dog walkers would be more likely to clean up after their pets when walking them on leash. Visitation by this user group at Rodeo Beach/South Rodeo Beach would have the potential to increase.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs on leash per person with no permit required. Commercial dog walking is not common at Rodeo Beach or South Rodeo Beach, but has recently begun to increase. It is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Rodeo Beach and South Rodeo Beach were considered for the cumulative impacts analysis (appendix K). The *Cosco Busan Recreational Use Restoration Projects Plan*, has rehabilitated the Rodeo Beach restroom, shower and picnic area, and improved the South Rodeo Beach access providing beneficial impacts to park visitors at this site. When the impacts associated with these projects are added to the long-term minor to moderate adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative B of the dog management plan, cumulative impacts would be long-term, minor to moderate, and adverse for visitors who would prefer to walk dogs at Rodeo Beach/South Rodeo Beach and beneficial for visitors who would prefer not to have dog walking at the site.

RODEO BEACH/SOUTH RODEO BEACH ALTERNATIVE B CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Off-leash dog walking would no longer be allowed; dog walking use is low to moderate at this site	Long-term minor to moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; dog walking use is low to moderate at this site	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative C: Emphasis on Multiple Use – Balanced by County. Alternative C would provide an approximately 0.4 mile VSCA on the full length of Rodeo Beach between the ocean and the proposed post-and-cable fence to be installed to protect the shoreline habitat at the western edge of Rodeo Lagoon, which is currently closed to people and dogs. The VSCA would not include South Rodeo Beach. On-

leash dog walking would be required on the approximately less than one tenth of a mile footbridge that leads to the beach. Dogs would be prohibited on South Rodeo Beach.

Impacts on visitors who would prefer to walk dogs at the park would be beneficial. Even though the VSCA would be reduced by 0.2 mile, dogs would continue to be able to run off leash along Rodeo Beach. Therefore, dogs that do not receive enough exercise or become aggressive when restrained by a leash would still have the opportunity to walk under voice and sight control within the VSCA. The area closed to dogs on South Rodeo Beach would be relatively small compared to the size of Rodeo Beach. Dogs would continue to receive adequate exercise by being off leash. Having dogs off leash and playing throughout the area may add to the park experience for visitors with dogs. Visitation by this user group at Rodeo Beach/South Rodeo Beach would likely remain the same.

Impacts on visitors who would prefer not to have dog walking at the park would be long term, minor, and adverse. Visitors would continue to encounter dogs under voice control on Rodeo Beach. Rodeo Beach is the most easily accessible beach at this site, only a 1-minute walk from the parking lot. These visitors, especially those with small children, may feel intimidated by dogs running along the beach. Dogs would be prohibited on South Rodeo Beach, which would provide a no-dog experience in a small portion of the site; however, gaining access to the site can be challenging especially for elderly, handicapped, or visitors with small children since a long, steep hike from the parking lot is required. Visitation by this user group at Rodeo Beach/South Rodeo Beach would have the potential to decrease due to the presence of dogs under voice and sight control.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. In a VSCA, permit holders may have up to six dogs off-leash and the permit may restrict use by time and area. Permits would be allowed at Rodeo Beach/South Rodeo Beach. Commercial dog walking has recently begun to increase at Rodeo Beach. It is likely that commercial dog walking would have beneficial impacts on visitors who prefer dogs at the park and long-term, minor, adverse impacts to visitors who do not prefer dogs at the park. Impacts would be adverse since visitors would likely encounter dog walkers with more than three dogs.

Cumulative Impacts. Projects and actions in and near Rodeo Beach and South Rodeo Beach considered for the cumulative impacts analysis would be the same as those described under alternative B. When the impacts associated with these projects are added to the beneficial impacts (for those who prefer dogs) and long-term, minor, adverse impacts (for those who do not prefer dogs) associated with alternative C of the dog management plan, cumulative impacts would be beneficial for visitors who would prefer to walk dogs at Rodeo Beach/South Rodeo Beach and long-term, minor, adverse for visitors who would prefer not to have dog walking at the site.

RODEO BEACH/SOUTH RODEO BEACH ALTERNATIVE C CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Beneficial impacts for visitors who would prefer to walk dogs at the park	Dog walking would still be allowed on site and off leash in the VSCA	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Visitors would still encounter dogs under voice and sight control along the beach	Long-term minor adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative D: Most Protective of Resource Protection and Visitor Safety. Alternative D would allow on-leash dog walking on the approximately 0.2 mile length of Rodeo Beach that is north of the footbridge

and on the approximately 0.1 mile length of the footbridge to the beach. On-leash dog walking would be based on an allowed 6-foot dog leash. South Rodeo Beach would be closed to dogs. The lagoon is currently closed to people and dogs.

Impacts on visitors who would prefer to walk dogs at the park would be long term, moderate, and adverse. Dog walking under voice and control would no longer be allowed at this site. The area available for dog walking on Rodeo Beach would be reduced by approximately 0.4 mile. Adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. Limiting dog walking areas would reduce visitors’ enjoyment of this site. In addition, it would be difficult for some visitors, particularly those that are disabled or elderly with mobility issues, to adequately control their dogs on-leash. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. Some visitors in this user group may find a different area in GGNRA or a local city or county park to exercise their dogs off leash. As a result, visitation by local residents with dogs may decrease slightly in this area.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. A no-dog experience would be available on a long stretch of Rodeo Beach close to the parking area and on South Rodeo Beach. These visitors, especially those with small children, would feel more comfortable recreating at these areas without the presence of dogs. Children, school groups, and GGNRA partner education groups would be provided an area in which to play and receive educational experiences without the presence of dogs. In addition, pet waste on the beach would no longer occur in the dog-free areas. Visitation by this user group at Rodeo Beach/South Rodeo Beach would likely increase.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D. Private dog walkers would be allowed up to three dogs. Commercial dog walking is not common at Rodeo Beach and South Rodeo Beach, but has recently begun to increase. It is likely that prohibiting commercial dog walking from this site would have long-term minor adverse impacts on visitors who would prefer to walk dogs at the park and beneficial for visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Rodeo Beach and South Rodeo Beach considered for the cumulative impacts analysis would be the same as those described under alternative B. When the impacts associated with these projects are added to the long-term moderate adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative D of the dog management plan, cumulative impacts would be long-term, moderate, adverse for visitors who would prefer to walk dogs at Rodeo Beach/South Rodeo Beach and beneficial for visitors who would prefer not to have dog walking at the site.

RODEO BEACH/SOUTH RODEO BEACH ALTERNATIVE D CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would only be allowed on leash and in designated areas	Long-term moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in restricted areas; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative E: Most Dog Walking Access / Most Management Intensive. Under alternative E, dog walking under voice and sight control would be allowed in a VSCA on Rodeo Beach and South Rodeo Beach. A total of an approximately 0.6 mile length of beach would be available for off-leash dog walking, the same area currently available. On-leash dog walking would be allowed on the footbridge and access trail to the beach, which totals approximately 0.2 mile in length. On-leash dog walking would be based on an allowed 6-foot dog leash. The lagoon is currently closed to people and dogs.

Impacts on visitors who would prefer to walk dogs at the park would be beneficial. Impacts would be beneficial since the majority of the beach would still be available to dog walking under voice and sight control. Dogs that do not receive enough exercise or become aggressive when restrained by a leash would still have the opportunity to walk under voice and sight control within the VSCA. Visitors would be required to walk their dogs on leash until they reach the VSCA, where their dogs would be allowed to run, exercise, and socialize with other dogs. There would be no change in the mileage of on-leash trails and off-leash beach area available for dog walking. Visitation by this user group at Rodeo Beach/South Rodeo Beach would likely remain the same.

Impacts on visitors who would prefer not to have dog walking at the park would be long term, minor, and adverse. Visitors would not have the opportunity to have a no-dog experience on Rodeo Beach/South Rodeo Beach and therefore may avoid Rodeo Beach/South Rodeo Beach due to the presence of off-leash dogs. In addition, some visitors would prefer not to recreate in an area where dogs are urinating or defecating on the beach. Impacts would be minor and adverse since dogs would continue to be present both on and off leash throughout the site. Visitation by this user group at Rodeo Beach/South Rodeo Beach would have the potential to decrease due to the presence of dogs.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. In a VSCA, permit holders may have up to six dogs off-leash and the permit may restrict use by time and area. Permits would be allowed at Rodeo Beach/South Rodeo Beach. Commercial dog walking has recently begun to increase at Rodeo Beach. It is likely that commercial dog walking would have beneficial impacts on visitors who prefer dogs at the park and long-term minor adverse impacts to visitors who do not prefer dogs at the park. Impacts would be adverse since visitors would likely encounter dog walkers with more than three dogs.

Cumulative Impacts. Cumulative impacts would be the same as alternative C: beneficial for those who prefer to walk dogs and long-term, minor, adverse for those visitors who prefer not to have dogs at the site.

RODEO BEACH/SOUTH RODEO BEACH ALTERNATIVE E CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Beneficial impacts for visitors who would prefer to walk dogs at the park	Dog walking would still be allowed on site, including under voice and sight control in a VSCA	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Visitors would still encounter dog walking under voice and sight control along the beach	Long-term minor adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative F: Preferred Alternative. The preferred alternative includes a VSCA on 0.4 mile of the main Rodeo Beach between the ocean and the proposed post-and-cable fence to be installed to protect the shoreline habitat at the western edge of Rodeo Lagoon, which would remain closed to people and dogs to

the southern boundary of the main beach where a rocky point divides the main beach from South Rodeo Beach. Rodeo Beach is approximately 0.4 mile in length. On-leash dog walking would be allowed on the approximately less than one tenth of a mile footbridge and beach access steps that leads to the beach. During periods when surface waters connect the lagoon and the ocean, no dogs would be allowed to enter the connecting surface waters in the northwest portion of the VSCA or the beach access steps during those seasonal periods. Dogs would be prohibited on South Rodeo Beach.

Impacts on visitors who would prefer to walk dogs at the park would be beneficial. Even though the VSCA would be reduced by approximately 0.2 mile, there would still be a large off-leash area on Rodeo Beach. The area closed to dogs on South Rodeo Beach would be relatively small compared to the size of Rodeo Beach. Dogs would continue to receive adequate exercise by being off leash. Having dogs off leash and playing throughout the area may add to the park experience for visitors with dogs. Visitation by this user group at Rodeo Beach/South Rodeo Beach would likely remain the same.

Impacts on visitors who would prefer not to have dog walking at the park would be long term, minor, and adverse. Visitors would continue to encounter dogs off-leash on Rodeo Beach. Rodeo Beach is the most easily accessible beach at this site, only a 1-minute walk from the parking lot. These visitors, especially those with small children, may feel intimidated by dogs running along the beach. Dogs would be prohibited on South Rodeo Beach, which would provide a no-dog experience in a small portion of the site; however, gaining access to the site can be challenging especially for elderly, handicapped, or visitors with small children since a long, steep hike from the parking lot is required. Visitation by this user group at Rodeo Beach/South Rodeo Beach would have the potential to decrease due to the presence of dogs under voice and sight control.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. In a VSCA, permit holders may have up to six dogs off-leash and the permit may restrict use by time and area. Permits would be allowed at Rodeo Beach/South Rodeo Beach. Commercial dog walking has recently begun to increase at Rodeo Beach. It is likely that commercial dog walking would have beneficial impacts on visitors who prefer dogs at the park and long-term minor adverse impacts to visitors who do not prefer dogs at the park. Impacts would be adverse since visitors would likely encounter dog walkers with more than three dogs.

Cumulative Impacts. Projects and actions in and near Rodeo Beach/South Rodeo Beach were considered for the cumulative impacts analysis (appendix K). The *Cosco Busan Recreational Use Restoration Projects Plan*, has rehabilitated the Rodeo Beach restroom, shower and picnic area, and improved the South Rodeo Beach access providing beneficial impacts to park visitors at this site.

When the impacts associated with the preferred alternative of the dog management plan are combined with the beneficial impacts from the project discussed above, cumulative impacts to visitor use and experience would be beneficial for visitors who would prefer dogs at the park and long-term, minor, adverse for visitors who do not prefer dogs at the park.

RODEO BEACH/SOUTH RODEO BEACH PREFERRED ALTERNATIVE F CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Beneficial impacts for visitors who would prefer to walk dogs at the park	Dog walking would still be allowed on-leash and off-leash in a VSCA	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Visitors would still encounter dogs off leash, although under voice and sight control, along the beach	Long-term minor adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Marin Headlands Trails

Alternative A: No Action. Currently, on-leash dog walking is allowed along portions of the Coastal Trail (Hill 88 to Muir Beach), the Batteries Loop Trail, North Miwok Trail from Tennessee Valley to Highway 1, Marin Drive, and County View Trail. Dog walking under voice control (or on leash) is allowed along other portions of the Coastal Trail (Golden Gate Bridge to Hill 88 and includes portions of the Lagoon Loop Trail), the Coastal, Wolf Ridge, and Miwok Trail Loop, and the Old Bunker Fire Road Loop (includes section of the Coastal Trail). A total of approximately 12.2 miles of trails are available for off-leash or on-leash dog walking and 8.2 miles of trails are available for on-leash dog walking only. Visitation by multiple user groups, including hikers, runners, school groups, horseback riders, and bicyclists, is low to high and visitation by dog walkers is low to moderate at this park site (table 10). Dog-related incidents are high at this site with a total of 269 from 2008 through 2011, with the majority of incidents for having dogs within areas closed to pets (table 17a). Dog-related incidents between 2012 and 2016 totaled 232, with the majority being for leash law violations (table 17b) Enforcement in this area is high since the current dog walking regulation is in a clearly delineated area, signs are present, and many of the trails are easily accessible by law enforcement.

There would be no impacts on the visitor experience of those who would prefer to walk dogs at this park site under the no-action alternative. Dog walkers would continue to use this site to allow their dogs to exercise and play. A change in visitation by this user group at the Marin Headlands Trails would not be expected.

Impacts on visitors who would prefer not to have dog walking at the park would be long term, minor, and adverse. Pet-related violations would continue under this alternative. Visitors hiking or bicycling in the area may feel uneasy with off-leash dogs on the trails. Impacts would be expected to be minor, since the site is not heavily used by dog walkers. Visitation by this user group would likely remain the same.

Under alternative A, no permit system exists for dog walking. At the Marin Headlands Trails, commercial dog walking is uncommon. The impacts from commercial dog walkers to visitor experience are similar to the impacts discussed above for both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at this park site.

Cumulative Impacts. Projects and actions in and near the Marin Headlands Trails were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on visitors at or in the vicinity of the Marin Headlands Trails.

The *Marin Headlands and Fort Baker Transportation Infrastructure Management Plan* provides planning and infrastructure improvements that would provide greater access to and within the Marin Headlands area for a variety of visitors in the park. The *San Francisco Bay Conservation and Development Commission's Tennessee Valley / Manzanita Connector Pathway Project* has upgraded the existing path

to meet current FRA accessibility and design standards for a multi-use pathway and is encouraging area residents to use the trail as an alternative to vehicular travel to reach key destinations (San Francisco Bay Conservation and Development Commission 2009, 2). Accessibility site improvements at Marin Headlands trails provided parking and accessible driveways to the Kirby Cove historic site, restrooms, and campsites.

The proposed GGNRA interim compendium amendment would require commercial dog walkers in San Francisco and Marin counties to obtain a permit to walk more than three dogs at GGNRA sites, with a limit of six dogs. By reducing congestion and overcrowding, the amendment would have beneficial impacts on visitors who prefer dogs. It would also have beneficial impacts on visitors who prefer not to have dogs at the park. Although this proposed amendment may have adverse impacts on commercial dog walkers who want to walk more than three dogs at GGNRA, commercial dog walking use is considered low at Marin Headlands Trails.

Beneficial impacts from these projects would be expected for all visitors at GGNRA; however, even though these projects will benefit visitors at the park by improving the infrastructure in and around this park site, these projects are not directly related to dog management or dog-related visitor use and would not substantially affect the cumulative analysis for alternative A. The proposed interim compendium amendment is directly related to dog management and would have overall beneficial cumulative impacts, but these impacts are not expected to be great enough to alter the intensity of the expected impacts from the implementation of the preferred alternative for either user group since commercial dog walking use is considered low. Therefore, cumulative effects would not be measurable or perceptible under alternative A and no change in impact level or intensity is expected on either user group: negligible for those who prefer to walk dogs and long-term, minor and adverse for those visitors who prefer not to have dogs at the site.

MARIN HEADLANDS TRAILS ALTERNATIVE A CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
No impact for visitors who would prefer to walk dogs at the park	Dog walking would still be allowed on site and off leash in some areas	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park	Visitors would still encounter on-leash and off-leash dog walking along the trails	Long-term minor adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative B: NPS Leash Regulation. Under alternative B, no dogs would be allowed on the Marin Headlands Trails.

Impacts on visitors who would prefer to walk dogs at the park would be long term, moderate, and adverse since dog walking would no longer be allowed at this site. During the public comment period for the draft plan/EIS many commenters stated how dog walking within the Marin Headlands is important. One commenter stated, “My family and I walk our dog Mazzy (black and tan coon hound) under voice command on a daily basis. We believe her walks off leash have brought her back to her natural self reliant ways. She does not do well in a dog park with the frantic stick and ball type dogs, frankly they intimidate her and make her feel uneasy, she prefers the open space of our Marin Headlands trails.... This is our dogs fondess times and we will surly miss this opportunity to share the natural surroundings with her if we are forced off these trails ...” (NPS 2011a, Correspondence 1027). Another commenter stated, “The opportunity to go on the Coastal Trail give me the opportunity to practice commands, meet other responsible dog owners, and allow my dog to run (under voice control). Not having a car, I cannot drive

my dog to a dog park that would be large enough to allow him some freedom and not be confronted by too many dogs in one small fenced-in area” (NPS 2011a, Correspondence 1949). Impacts would be moderate since this site has low to moderate use by dog walkers. Visitors would need to find other areas in the park for dog walking. Visitors would no longer be able to play, run, and socialize with their dogs at this park site. Visitors would no longer receive personal benefits from walking dogs at the site. Visitation by this user group at the Marin Headlands Trails would decrease.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Hikers, bicyclists, runners, and horseback riders would now be able to use the entire site without the presence of dogs. Visitor incidents related to pet violations would no longer occur. Visitation by this user group would be expected to increase.

Since dogs would not be allowed at this site the impacts to commercial dog walkers are similar to the impacts discussed above for visitors who would prefer to walk dogs at the park.

Cumulative Impacts. Projects and actions in and near the Marin Headlands Trails were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on visitors at or in the vicinity of the Marin Headlands Trails.

The *Marin Headlands and Fort Baker Transportation Infrastructure Management Plan* provides planning and infrastructure improvements that would provide greater access to and within the Marin Headlands area for a variety of visitors in the park. The *San Francisco Bay Conservation and Development Commission’s Tennessee Valley / Manzanita Connector Pathway Project* has upgraded the existing path to meet current FRA accessibility and design standards for a multi-use pathway and is encouraging area residents to use the trail as an alternative to vehicular travel to reach key destinations (San Francisco Bay Conservation and Development Commission 2009, 2). Accessibility site improvements at Marin Headlands trails provided parking and accessible driveways to the Kirby Cove historic site, restrooms, and campsites.

When the impacts associated with these projects are added to the long-term moderate adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative B of the dog management plan, cumulative impacts would be long term, moderate, and adverse for visitors who would prefer to walk dogs at Marin Headlands Trails and beneficial for visitors who would prefer not to have dog walking at the site.

MARIN HEADLANDS TRAILS ALTERNATIVE B CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate adverse impacts for visitors who would prefer to walk dogs at the park	Visitors would no longer be allowed to walk dogs at this site	Long-term moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking would not be allowed on site; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative C: Emphasis on Multiple Use – Balanced by County. Under alternative C, on-leash dog walking would be allowed along the Lower Rodeo Valley Trail Corridor. This corridor extends from the Rodeo Beach parking lot to the intersection of Bunker and McCullough roads via the North Lagoon Loop Trail, the Miwok Trail, and Rodeo Valley Trail, and includes the connector trail from the Rodeo Valley Trail to the Smith Road Trailhead. On-leash dog walking would also be allowed on the Old Bunker Fire

Road Loop (including a section of the Coastal Trail), and the Batteries Loop Trail. This allows a total of approximately 4.8 miles of on-leash dog walking at the site.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor to moderate, and adverse. Dogs would no longer be allowed to run off leash and would be limited to the Lower Rodeo Valley Trail Corridor. Dog walking would be required to be on leash and the area available for dog walking would be reduced by 15.6 miles. During the public comment period for the draft plan/EIS, one commenter stated, “For years we have walked our dogs on leash up wolf ridge to hill 88. We love to share these beautiful views and spaces w/our dogs. Please don't limit us to the lower reaches of the headlands” (NPS 2011a, Correspondence 2124). Adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. Limiting dog walking areas would reduce visitors’ enjoyment of this site. Some visitors in this user group may find a different park to exercise their dogs off leash. Visitation by this user group may decrease slightly.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Since dogs would be required to be on leash, visitors would no longer encounter dogs under voice control. Visitors who would prefer not to have dog walking at the park may feel more comfortable recreating at the Marin Headlands Trails since dogs would now be restrained on leash. In addition, dog walking would be restricted to the Lower Rodeo Valley Trail Corridor; therefore, numerous trails, including sections of the Coastal Trail, Wolf Ridge Trail, and Miwok Trail, would be available for a no-dog experience. Visitation by this user group at the Marin Headlands Trails would have the potential to increase.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be granted at Marin Headlands Trails, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at this site, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Marin Headlands Trails considered for the cumulative impacts analysis would be the same as those described under alternative B. When the impacts associated with these projects are added to the long-term minor to moderate adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative C of the dog management plan, cumulative impacts would be long term, minor to moderate, and adverse for visitors who would prefer to walk dogs at Marin Headlands Trails and beneficial for visitors who would prefer not to have dog walking at the site.

MARIN HEADLANDS TRAILS ALTERNATIVE C CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in designated areas	Long-term minor to moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative D: Most Protective of Resource Protection and Visitor Safety. Dog walking restrictions would be the same as alternative B and impacts on visitor use and experience would also be the same: long-term moderate adverse impacts on visitors who would prefer to walk dogs at the park and beneficial impacts on visitors who would prefer not to have dog walking at the park.

Since dogs would not be allowed at this site the impacts from commercial dog walkers are similar to the impacts discussed above in alternative B for visitors who would prefer to walk dogs at the park.

Cumulative Impacts. Cumulative impacts would be the same as alternative B: long-term, moderate, and adverse for visitors who would prefer to walk dogs at Marin Headlands Trails and beneficial for visitors who would prefer not to have dog walking at the site.

MARIN HEADLANDS TRAILS ALTERNATIVE D CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate adverse impacts for visitors who would prefer to walk dogs at the park	Visitors would no longer be allowed to walk dogs at this site	Long-term moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking would not be allowed on site; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative E: Most Dog Walking Access / Most Management Intensive. Under alternative E, on-leash dog walking would be allowed on the Conzelman Coastal Trail from Highway 101 to the McCullough Road intersection and then to the Coastal Trail Bike Route, including Julian Road, to Rodeo Beach parking lot. On-leash dog walking would also be available on the Old Bunker Fire Road Loop (which includes a section of the Coastal Trail), Batteries Loop Trail, North Miwok Trail from Tennessee Valley to Highway 1, County View Trail, Marin Drive, Rodeo Avenue Trail, and Morning Sun Trail. Alternative E would allow a total of approximately 17.7 miles of on-leash dog walking trails. The addition of the Rodeo Avenue and Morning Sun Trails provides access to the Alta Trail, which extends to Marin City and connects to Oakwood Valley.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor to moderate, and adverse. Dog walking would be required to be on leash and the area available for dog walking would be reduced by 2.7 miles. During the public comment period for the draft plan/EIS, one commenter stated, “Marin Headlands is one of those great parks that allows dogs and it would be a shame if the limited amount of trails that dogs are allowed on is further reduced. Owning a dog means that when I go hiking, my dog comes with me. The only reason that I visit Marin Headlands is because it allows dogs. I will not return to the headlands in the future if trail access for dogs is diminished” (NPS 2011a, Correspondence 922). Adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. Some visitors in this user group may find a different park to exercise their dogs off leash. Visitation by this user group may decrease slightly.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Since dogs would be required to be on leash, visitors would no longer encounter dogs under voice control. Visitors who would prefer not to have dog walking at the park may feel more comfortable recreating at Marin Headlands Trails since dogs would be restrained on leash. In addition, dog walking would be restricted to a portion of the site, thus allowing for a no-dog experience on some trails. Visitation by this user group at the Marin Headlands Trails would have the potential to increase.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be granted at Marin Headlands Trails, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Marin Headlands Trails, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Cumulative impacts would be the same as alternative C: long term, minor to moderate, and adverse for visitors who would prefer to walk dogs at Marin Headlands Trails and beneficial for visitors who would prefer not to have dog walking at the site.

MARIN HEADLANDS TRAILS ALTERNATIVE E CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in designated areas	Long-term minor to moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; a no-dog experience would be available	Beneficial impacts for visitors who would prefer not to have dog walking at the park

Alternative F: Preferred Alternative. On-leash dog walking would be allowed along the Lower Rodeo Valley Trail Corridor from the Rodeo Beach parking lot to the intersection of Bunker and McCullough roads via the North Lagoon Loop Trail, and sections of the Miwok Trail and Rodeo Valley Trail, Smith Trail from the parking lot to Rodeo Valley Trail, and includes the connector trail from Rodeo Valley Trail to the Smith Road Trailhead. On-leash dog walking would also be available on the Old Bunker Fire Road Loop (including a section of the Coastal Trail), Batteries Loop Trail, Rodeo Avenue Trail, and Morning Sun Trail. In total, the preferred alternative offers approximately 5.9 miles of on-leash dog walking trails, and the addition of the Rodeo Avenue and Morning Sun Trails provides access to the Alta Trail, which extends to Marin City and connects to Oakwood Valley. Dog walking would be required to be on leash and the area available for dog walking would be reduced.

Long-term minor to moderate adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. Visitors would no longer be allowed to walk dogs off-leash and the total amount of area available to dog walkers would be reduced by 14.5 miles. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. Limiting dog walking areas would reduce these visitors’ enjoyment of this site. Some visitors in this user group may prefer to find a different park in which to exercise their dogs off leash. Visitation by this user group may decrease slightly. However, when dog walking opportunities at this site are combined with the preferred alternative for Alta Trail, there would be an increase in the amount of trails available in southern Marin County.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Since dogs would be required to be on leash, visitors would no longer encounter dogs under voice control. Visitors who would prefer not to have dog walking at the park may feel more comfortable recreating at the Marin Headlands Trails since dogs would be restrained on leash. In addition, dog walking would be restricted to the Lower Rodeo Valley Trail Corridor; Rodeo Avenue Trail, Smith Trail, and Morning Sun Trail; therefore numerous trails, including sections of the Coastal Trail, Wolf Ridge Trail, and Miwok Trail,

would be available for a no-dog experience. Visitation by this user group at the Marin Headlands Trails would have the potential to increase.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be granted at Marin Headlands Trails, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at this site, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near the Marin Headlands Trails were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on visitors at or in the vicinity of the Marin Headlands Trails.

The *Marin Headlands and Fort Baker Transportation Infrastructure Management Plan* provides planning and infrastructure improvements that would provide greater access to and within these areas for a variety of visitors in the park. The *San Francisco Bay Conservation and Development Commission’s Tennessee Valley / Manzanita Connector Pathway Project* upgraded the existing path to meet current FRA accessibility and design standards for a multi-use pathway and is encouraging area residents to use the trail as an alternative to vehicular travel to reach key destinations (San Francisco Bay Conservation and Development Commission 2009, 2). Site improvements at Marin Headlands trails included providing parking and accessible driveways to the Kirby Cove historic site, restrooms, and campsites.

Beneficial impacts from these projects would be expected for all visitors at GGNRA; however, even though these projects will benefit visitors at the park by improving the infrastructure in and around this park site, these projects are not directly related to dog management or dog-related visitor use and would not substantially affect the cumulative analysis for preferred alternative. The proposed interim compendium amendment is directly related to dog management and would have overall beneficial cumulative impacts, but these impacts are not expected to be great enough to alter the intensity of the expected impacts from the implementation of the preferred alternative for either user group since commercial dog walking use is considered low. Therefore, cumulative effects would not be measurable or perceptible on the preferred alternative and no change in impact level or intensity is expected on either user group: long-term, minor to moderate and adverse for those who prefer to walk dogs and beneficial for those visitors who prefer not to have dogs at the site.

MARIN HEADLANDS TRAILS PREFERRED ALTERNATIVE F CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Off-leash dog walking would no longer be allowed; on-leash dog walking would be allowed only in designated areas	Long-term minor to moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Fort Baker

Alternative A: No Action. On-leash dog walking is currently allowed in the Fort Baker area except for the pier, closed for visitor safety, and the Chapel Trail, closed to protect adjacent mission blue butterfly

habitat. There are currently approximately 3.8 miles of trails and 51.3 acres of other paved or grassy areas available for on-leash dog walking. Visitation at Fort Baker is considered moderate for multiple user groups and low for dog walkers. Dog walkers include guests with dogs at the newly opened Cavallo Point Lodge at the Golden Gate and local residents who walk from Sausalito. Documented leash law violations at this site totaled 52 from 2008 through 2011 (table 18a) and 55 dog-related incidents from 2012 through 2016 (table 18b). Park staff members frequently observe visitors allowing their dogs off leash in this site. Staff observations of dog walkers have increased recently due to the increased presence of patrols since NPS offices are now located in Building 507 at Fort Baker. In addition, an increase in enforcement in the area is due to the higher phone call rate since the opening of the Cavallo Point Lodge, restaurant, and bar.

Under the no-action alternative, there would be no impact on visitors who would prefer to walk dogs at this park site. Visitors would continue to walk dogs on leash throughout the site and some visitors would continue to disregard the leash regulation by walking their dogs off leash. Having dogs off leash and playing throughout the area may add to the park experience for visitors with dogs. A change in visitation by this user group at Fort Baker would not be expected.

Impacts on visitors who would prefer not to have dog walking at this park site would be long term, minor, and adverse. Visitors would continue to encounter dogs both on and off leash at this park site and these visitors may avoid this area due to the presence of dogs. Monitoring by law enforcement is regular at Fort Baker due to the location of a law enforcement office at Fort Baker, yet compliance is low and park staff members estimate that about half the visits from visitors with dogs are in violation. Dogs off leash have been observed by park staff on the Parade Ground, Drown Fire Road, Battery Yates, and behind the Bay Area Discovery Museum, which are all on-leash dog walking sites. Under the no-action alternative, there would only be two areas in this park site, the pier and the Chapel Trail, for visitors to experience Fort Baker without the presence of dogs. Visitation by this user group at Fort Baker would have the potential to decrease due to the presence of dogs.

Under alternative A, no permit system exists for dog walking. At Fort Baker, commercial dog walking is uncommon. The impacts from commercial dog walkers to visitor experience are similar to the impacts discussed above for both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at this park site.

Cumulative Impacts. Projects and actions in and near Fort Baker were considered for the cumulative impacts analysis (appendix K). In addition to the beneficial impacts from the *Marin Headlands and Fort Baker Transportation Infrastructure Management Plan* as discussed above in alternative A for the Marin Headlands Trails, the following is a discussion of projects that have had, are currently having, or will have effects on visitor use and experience at or in the vicinity of Fort Baker.

At Fort Baker, the newly rehabilitated Cavallo Point Lodge, which houses the Institute at the Golden Gate, as well as infrastructure upgrades, waterfront improvements, and native habitat restoration, will attract additional visitors to this site (NPS 2008h, 1). Cumulatively, a predicted increase in visitation could result in additional incidents of dog encounters for visitors who prefer not to have dog walking within GGNRA experiences under alternative A. In addition, the *Alcatraz Ferry Embarkation Project* would evaluate long-term ferry service from the San Francisco embarkation site to the existing pier at Fort Baker. Although the projects mentioned are not directly related to dog management the benefit of improved access and new facilities at Fort Baker may increase visitation enough to alter the intensity of the expected impacts from the implementation of alternative A.

The proposed GGNRA interim compendium amendment would require commercial dog walkers in San Francisco and Marin counties to obtain a permit to walk more than three dogs at GGNRA sites, with a limit of six dogs. By reducing congestion and overcrowding, the amendment would have beneficial

impacts on visitors who prefer dogs. It would also have beneficial impacts on visitors who prefer not to have dogs at the park. Although this proposed amendment may have adverse impacts on commercial dog walkers who want to walk more than three dogs at GGNRA, commercial dog walking use is considered low at Fort Baker.

For visitors preferring not to have dog walking at the site, their experience could result in a long-term moderate adverse impact because the opportunity to encounter dogs within the Fort Baker site could increase even though dogs would be restricted to a leash and within designated areas. For those visitors who prefer to have dog walking within the site, the beneficial effects of the projects could provide impetus to visit the site, but would not provide any additional benefit to their visitor experience.

FORT BAKER ALTERNATIVE A CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
No impact for visitors who would prefer to walk dogs at the park	On-leash dog walking would still be allowed on site	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park	Visitors would still encounter dogs throughout the site	Negligible cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative B: NPS Leash Regulation. Alternative B would allow on-leash dog walking on Drown Fire Road, the Bay Trail (not including the Battery Yates Trail), Vista Point Trail (to be built), the Lodge/Conference Center Grounds, and the Parade Ground. A total of approximately 2.8 miles of trails and 45.3 acres of other grassy or paved areas would be available for on-leash dog walking. On-leash dog walking would be based on an allowed 6-foot dog leash.

Impacts on visitors who would prefer to walk dogs at this park site would be negligible. Visitors would continue to walk dogs on leash throughout the site, except for the Battery Yates Trail. The amount of area available for dog walking would only be reduced by approximately 0.9 mile of trail and 6 acres of other areas. Since the Cavallo Point Lodge is a pet-friendly facility, visitors staying at the lodge would be allowed to walk their dogs throughout the site. Visitation by this user group at this park site would be expected to remain the same.

Impacts on visitors who would prefer not to have dog walking at this park site would be negligible. Visitors would continue to encounter on-leash dogs throughout most of the site. Impacts would be negligible since dog walking would be allowed in similar areas to the no-action alternative. Having dogs on leash at Fort Baker would provide visitor protection in an area of increasing visitation, both around the lodge and along the waterfront. A no-dog experience would be available along the Battery Yates Trail, on the pier, and on the Chapel Trail. Visitation by this user group would likely remain the same.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs on leash per person with no permit required. Since commercial dog walking is not common at Fort Baker, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Fort Baker were considered for the cumulative impacts analysis (appendix K). In addition to the beneficial impacts from the *Marin Headlands and Fort Baker Transportation Infrastructure Management Plan* as discussed above in alternative A for the Marin Headlands Trails, the following is a discussion of projects that have had, are currently having, or will have effects on visitor use and experience at or in the vicinity of Fort Baker.

At Fort Baker, the newly rehabilitated Cavallo Point Lodge, which houses the Institute at the Golden Gate, as well as infrastructure upgrades, waterfront improvements, and native habitat restoration, will attract additional visitors to this site (NPS 2008h, 1). Cumulatively, a predicted increase in visitation could result in additional incidents of dog encounters for visitors who prefer not to have dog walking within GGNRA experiences under alternative B. In addition, the *Alcatraz Ferry Embarkation Project* would evaluate long-term ferry service from the San Francisco embarkation site to the existing pier at Fort Baker. Although the projects mentioned are not directly related to dog management the benefit of improved access and new facilities at Fort Baker may increase visitation enough to alter the intensity of the expected impacts from the implementation of alternative B.

When the impacts associated with these projects are added to the negligible impacts associated with alternative B of the dog management plan, cumulative impacts would be beneficial for both visitors who would prefer to walk dogs and for visitors who would prefer not to have dog walking at the site.

FORT BAKER ALTERNATIVE B CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Negligible impacts for visitors who would prefer to walk dogs at the park	On-leash dog walking would still be allowed on site	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Negligible impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Visitors would still encounter dogs throughout the site	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative C: Emphasis on Multiple Use – Balanced by County. Alternative C would allow on-leash dog walking on Drown Fire Road, the Bay Trail including the Battery Yates Trail, Vista Point Trail (to be built), the Lodge/Conference Center Grounds, and the Parade Ground. A total of approximately 3.2 miles of trails and 45.3 acres of other grassy or paved areas would be available for on-leash dog walking. On-leash dog walking would be based on an allowed 6-foot dog leash.

Impacts on visitors who would prefer to walk dogs at this park site would be negligible. Visitors would continue to walk dogs on leash throughout the site. The amount of area available for dog walking would only be reduced by approximately 0.6 mile of trail and 6 acres of other areas. Since the Cavallo Point Lodge is a pet-friendly facility, visitors staying at the lodge would be allowed to walk their dogs throughout the site. Visitation by this user group at this park site would be expected to remain the same.

Impacts on visitors who would prefer not to have dog walking at this park site would be negligible. Visitors would continue to encounter on-leash dogs throughout most of the site. Impacts would be negligible since dog walking would be allowed in similar areas to the no-action alternative. Having dogs on leash at Fort Baker would provide visitor protection in an area of increasing visitation, both around the lodge and along the waterfront. Visitation by this user group would likely remain the same.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs, and the permit may restrict use by time and area. Fort Baker is one of the seven park sites where permits would be allowed. Since commercial dog walking is not common at Fort Baker, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Cumulative impacts would be the same as alternative B: beneficial for visitors who would prefer to walk dogs at Fort Baker and beneficial for visitors who would prefer not to have dog walking at the site.

FORT BAKER ALTERNATIVE C CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Negligible impacts for visitors who would prefer to walk dogs at the park	On-leash dog walking would still be allowed on site	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Negligible impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Visitors would still encounter dogs throughout the site	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative D: Most Protective of Resource Protection and Visitor Safety. On-leash dog walking would be allowed on the grounds of the Lodge/Conference Center, Bay Trail (not including Battery Yates Trail), and Vista Point Trail (to be built). A total of approximately 2.3 miles of trail and 32 acres of other grassy or paved areas would be available for on-leash dog walking. Dogs would no longer be allowed on the Battery Yates Trail, Parade Ground fronting the Lodge Ground or on Drown Fire Road.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor, and adverse as alternative D would be the most restrictive for dog walking. Impacts would be minor and adverse because the amount of area available to pets would be reduced by approximately 1.5 miles of trail and 19.3 acres of other areas; however, a good portion of the site would still be available for walking dogs. Although a large percentage of area would remain available for dog walking, reducing the dog walking areas would reduce visitors’ enjoyment of this site. Visitation by this user group would have the potential to decrease slightly.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. This alternative would provide more areas in Fort Baker where dogs would not be allowed, which would benefit this user group’s no-dog experience. Visitation by this user group would have the potential to increase at this park site.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D. Private dog walkers would be allowed up to three dogs. Since commercial dog walking is not common at Fort Baker, it is likely that prohibiting commercial dog walking from this site would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Fort Baker considered for the cumulative impacts analysis would be the same as those described under alternative B. When the impacts associated with these projects are added to the long-term minor adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative D of the dog management plan, cumulative impacts would be negligible for visitors who would prefer to walk dogs and beneficial for visitors who would prefer not to have dog walking at the site.

FORT BAKER ALTERNATIVE D CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	The area available to dogs would be reduced	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Some areas would prohibit dogs, allowing a no-dog experience	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative E: Most Dog Walking Access / Most Management Intensive. Dog walking restrictions would be the same as alternative C and impacts on visitor use and experience would be the same as alternative C: negligible for visitors who would prefer to walk dogs at the park and negligible for visitors who would prefer not to have dog walking at this park site.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs, and the permit may restrict use by time and area. Fort Baker is one of the seven park sites where permits would be allowed. Since commercial dog walking is not common at Fort Baker, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Cumulative impacts would be the same as alternative B, beneficial for visitors who would prefer to walk dogs and for visitors who would prefer not to have dog walking at the site.

FORT BAKER ALTERNATIVE E CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Negligible impacts for visitors who would prefer to walk dogs at the park	On-leash dog walking would still be allowed on site	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Negligible impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Visitors would still encounter dogs throughout the site	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative F: Preferred Alternative. The preferred alternative would allow on-leash dog walking on the Parade Ground; the length of the Bay Trail from the northern parking lot off of Conzelman Road to the northern park boundary along East Road; on Fort Baker Trail between the southern intersection with the Bay Trail at Sommerville Road to the northern intersection with the Bay Trail at East Road; and in the main parking area at the Bay Discovery Museum on its connecting trails to both the Bay and Fort Baker trails. This would total approximately 2.8 miles of trails and 42.3 acres of other grassy or paved areas available for on-leash dog walking. On-leash dog walking would be based on an allowed 6-foot dog leash.

Impacts on visitors who would prefer to walk dogs at this park site would be negligible. Visitors would continue to walk dogs on leash throughout the site. The amount of area available for dog walking would only be reduced by approximately 1 mile of trail and 9 acres of other areas. Since the Cavallo Point Lodge is a pet-friendly facility, visitors staying at the lodge would be allowed to walk their dogs throughout the site. Visitation by this user group at this park site would be expected to remain the same.

Impacts on visitors who would prefer not to have dog walking at this park site would be negligible. Visitors would continue to encounter on-leash dog walkers throughout most of the site. Impacts would be negligible since dog walking would be allowed in similar areas to the no-action alternative. Having dogs on leash at Fort Baker would provide visitor protection in an area of increasing visitation, both around the lodge and along the waterfront. A no-dog experience would be available along the Drown Fire Road, Vista Point Loop, on the pier, on the Chapel Trail, and on the Vista Point Trail when built. Visitation by this user group would likely remain the same.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs, and the permit may restrict use by time and area. Fort Baker is one of the seven park sites where permits would be allowed. Permits would be allowed at all on-leash areas at Fort Baker except around any portion of the Cavallo Point Lodge buildings outside the main parade ground. Since commercial dog walking is not common at Fort Baker, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Fort Baker were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on visitor use and experience at or in the vicinity of Fort Baker.

At Fort Baker, the newly rehabilitated Cavallo Point Lodge, which also houses the Institute at the Golden Gate, as well as infrastructure upgrades, waterfront improvements, and native habitat restoration, will attract additional visitors to this site (NPS 2008h, 1). Transportation infrastructure management in the Marin Headlands and Fort Baker area provides greater access to and within these areas for a variety of user groups in the park, resulting in beneficial impacts on visitor use and experience. In addition the *Alcatraz Ferry Embarkation Project* would evaluate long-term ferry service from the San Francisco embarkation site to existing piers at Fort Baker.

Visitation for either user group considered under the dog management alternative analysis could increase. Cumulatively, a predicted increase in visitation could result in additional incidents of dog encounters for visitors who prefer not to have dog walking within GGNRA experiences under the preferred alternative; however, available, designated dog walking areas are restricted in the preferred alternative and it is unlikely that any increased visitation to Fort Baker resulting from the projects discussed would be great enough to alter the level of intensity of impacts on visitor experience for either user group; overall, both groups would benefit from the enhancements at the site under the preferred alternative.

FORT BAKER PREFERRED ALTERNATIVE F CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Negligible impacts for visitors who would prefer to walk dogs at the park	On-leash dog walking would still be allowed on site	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Negligible impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Visitors would still encounter dogs throughout the site	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

SAN FRANCISCO COUNTY SITES

Upper and Lower Fort Mason

Alternative A: No Action. Currently, on-leash dog walking is allowed throughout Upper and Lower Fort Mason. Currently approximately 2.6 miles of trails and sidewalks and 45.7 miles of other grassy and paved areas are used for on-leash dog walking. This area is considered to have moderate to high visitor use by walkers, bikers, runners, and sightseers. Dog walking is very popular with many of the local residents as well as with local commercial dog walking businesses. Dog walking, including commercial dog walking, is considered a low to moderate use at this site (table 10). The trail connecting San Francisco Maritime National Historical Park to Lower Fort Mason, and ultimately to Crissy Field, is heavily used by bicyclists, walkers, and runners. Dog-related incidents were high from 2008 through 2011, with 145 total incidents reported. The majority of incidents were for off-leash dog walking areas (table 19a). In addition, six dog bites/attacks were reported from 2008 through 2011 (table 19a). Between 2012 and 2016 a total of 74 dog-related incidents were recorded, with the majority for animal complaints and leash law violations (table 19b).

There would be no impact on the visitor experience of visitors who would prefer to walk dogs at the park. Visitors would continue to use the area for exercising, playing with, and socializing their pets. Some dog walkers would continue to walk their dogs off leash throughout the site even though this would not be allowed under alternative A. Commercial dog walkers would also continue to use the site and to walk four to six or more dogs at a time, sometimes off leash. A change in visitation by this user group would not be expected.

Impacts on visitors who would prefer not to have dog walking at the park would continue to be long term, minor to moderate, and adverse. Visitors would continue to encounter both on- and off-leash dogs at this site. Incidents with dogs, such as dog bites/attacks, would continue. During the public comment period for the draft plan/EIS, one commenter described the current conditions at Fort Mason as the following, “our enjoyment of Fort Mason quickly turned to concern as we saw dogs running without supervision while their owners engaged in conversations. twice one of our children was aggressively approached by a large growling dog. we’ve been forced to find other areas of the city to enjoy the outdoors with our family. the Fort Mason area in particular is a gem that deserves better management by the park service” (NPS 2011a, Correspondence 1079). Currently, visitors at this park site who would prefer not to have dog walking at the park are not able to have a no-dog experience. Some visitors may avoid this area due to the presence of dogs. Visitation by this user group at Upper and Lower Fort Mason would have the potential to decrease due to the presence of dogs.

Under alternative A, no permit system exists for dog walking; however, commercial dog walkers currently use Upper and Lower Fort Mason for dog walking. Under alternative A, there would be no impact from commercial dog walking on visitors who would prefer to walk dogs at the park. Some visitors would continue to walk more than three dogs per walker and some visitors would continue to enjoy the presence of multiple dogs. Impacts from commercial dog walking on visitors who would prefer not to have dog walking at the park would be long term, minor, and adverse. Some visitors may feel uncomfortable recreating in this area if multiple dog walkers have more than three dogs at one time, especially if the dogs are off leash.

Cumulative Impacts. Projects and actions in and near Upper and Lower Fort Mason were considered for the cumulative impacts analysis (appendix K). In addition to the *Cosco Busan Recreational Use Restoration Projects Plan* described under alternative A of Stinson Beach, the following is a discussion of projects that have had, are currently having, or will have effects on visitor use and experience at or in the vicinity of Upper and Lower Fort Mason.

The improvement of the San Francisco Bay Trail at Laguna Street and Marina Boulevard at Upper and Lower Fort Mason was part of initiatives of park stewardship programs, and included the improvement of pedestrian and bicycle traffic flow, and the revegetation of the landscape (GGNPC 2009, 1–2). The proposed extension of the Municipal Railway’s Historic Streetcar Service would continue the F-line three blocks west from San Francisco Maritime National Historic Park through the Fort Mason Tunnel to the Fort Mason Center at GGNRA, for a total additional distance of about 0.85 mile, benefiting public transportation in the area. The restoration projects would enhance aesthetics, safety and recreational enjoyment for all visitors to Upper and Lower Fort Mason. Fort Mason was identified as a key site targeted for increasing accessibility in GGNRA. Projects completed include improvements in accessibility of picnic areas, camping views, beaches, restrooms, interpretive and wayfinding signs, and parking and accessible routes to these amenities. Beneficial impacts to visitor use and experience would result from the improvements to accessibility of the sites for visitors with disabilities. The *Alcatraz Ferry Embarkation Project* would evaluate long-term embarkation sites from the San Francisco waterfront at Fort Mason to Alcatraz.

The proposed GGNRA interim compendium amendment would require commercial dog walkers in San Francisco and Marin counties to obtain a permit to walk more than three dogs at GGNRA sites, with a limit of six dogs. By reducing congestion and overcrowding, the amendment would have beneficial impacts on visitors who prefer dogs. It would also have beneficial impacts on visitors who prefer not to have dogs at the park. Although this proposed amendment may have adverse impacts on commercial dog walkers who want to walk more than three dogs at GGNRA, commercial dog walking use is considered low to moderate at Fort Mason.

Cumulatively, all visitors, including both user groups would enjoy the enhanced viewshed of restored habitat and improved trails and safety that results from the trail improvements. Improved public access would benefit visitors except those who would prefer to walk dogs at Upper and Lower Fort Mason. It is unlikely that dogs would be allowed on the streetcars and as a result, visitors who prefer to walk dogs at the site, would not benefit to the same degree as other visitors. The cumulative benefits from public access, trail and restoration projects when considered with the dog management proposed under alternative A would not result in any substantial alteration of the impact intensity resulting from implementation of dog management under alternative A. All visitors would be provided with beneficial effects on their use and experience at Upper and Lower Fort Mason. Cumulative impacts would be beneficial for visitors who prefer dogs at the park and long-term, minor, adverse for visitors who do not prefer dogs at the park.

UPPER AND LOWER FORT MASON ALTERNATIVE A CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
No impact for visitors who would prefer to walk dogs at the park	On-leash dog walking would still be allowed on site	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term minor to moderate adverse impacts for visitors who would prefer not to have dog walking at the park	Visitors would still encounter dogs throughout the site	Long-term minor adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative B: NPS Leash Regulation. Under alternative B, on-leash dog walking would be allowed at Upper and Lower Fort Mason in Great Meadow, Laguna Green, lawns, sidewalks, paved trails, and open areas around housing areas. A total of approximately 2.6 miles of trail and sidewalks and 18.8 acres of other grassy or paved areas are available for on-leash dog walking.

Impacts on visitors who would prefer to walk dogs at the park would be negligible because on-leash dog walking would still be allowed in a large percentage of the site; however, the available area for dog walking would be decreased by approximately 26.9 acres of grassy or paved areas. The allowed number of dogs walked for visitors or commercial dog walkers would be restricted to three dogs. Visitors would continue to use the area for exercising, playing with, and socializing their pets. A change in visitation by this user group would not be expected.

Impacts on visitors who would prefer not to have dog walking at the park would be long term, minor, and adverse. Visitors would continue to encounter on-leash dogs throughout the site. This site would not offer a no-dog experience for this user group. Some visitors may avoid this area due to the presence of dogs. Visitation by this user group at Upper and Lower Fort Mason would have the potential to decrease due to the presence of dogs.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs on leash per person with no permit required. Since commercial dog walking at Upper and Lower Fort Mason is common, it is likely that commercial dog walking would have long term minor adverse impacts on visitors who would prefer to walk dogs at the park. Adverse impacts would occur since dog walkers would not be able to walk more than three dogs. Visitor use by commercial dog walkers may decline in this area. Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. This user group would no longer encounter dog walkers with four or more dogs.

Cumulative Impacts. Projects and actions in and near Upper and Lower Fort Mason were considered for the cumulative impacts analysis (appendix K). In addition to the *Cosco Busan Recreational Use Restoration Projects Plan* described under alternative A of Stinson Beach, the following is a discussion of projects that have had, are currently having, or will have effects on visitor use and experience at or in the vicinity of Upper and Lower Fort Mason.

The improvement of the San Francisco Bay Trail at Laguna Street and Marina Boulevard at Upper and Lower Fort Mason was part of initiatives of park stewardship programs, and included the improvement of pedestrian and bicycle traffic flow, and the revegetation of the landscape (GGNPC 2009, 1–2). The proposed extension of the Municipal Railway's Historic Streetcar Service would continue the F-line three blocks west from San Francisco Maritime National Historic Park through the Fort Mason Tunnel to the Fort Mason Center at GGNRA, for a total additional distance of about 0.85 mile, benefiting public transportation in the area. The restoration projects would enhance aesthetics, safety and recreational enjoyment for all visitors to Upper and Lower Fort Mason. Fort Mason was identified as a key site targeted for increasing accessibility in GGNRA. Projects completed include improvements in accessibility of picnic areas, camping views, beaches, restrooms, interpretive and wayfinding signs, and parking and accessible routes to these amenities. Beneficial impacts to visitor use and experience would result from the improvements to accessibility of the sites for visitors with disabilities. The *Alcatraz Ferry Embarkation Project* would evaluate long-term embarkation sites from the San Francisco waterfront at Fort Mason to Alcatraz.

When the impacts associated with these projects are added to the negligible impacts (for those who prefer dogs) and long-term minor adverse impacts (for those who do not prefer dogs) associated with alternative B of the dog management plan, cumulative impacts would be beneficial for visitors who would prefer to walk dogs at Fort Mason and negligible for visitors who would prefer not to have dog walking at the site.

UPPER AND LOWER FORT MASON ALTERNATIVE B CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Negligible impacts for visitors who would prefer to walk dogs at the park	On-leash dog walking would still be allowed on site	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Visitors would still encounter dogs throughout the site	Negligible cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative C: Emphasis on Multiple Use – Balanced by County. Under alternative C, dog walking under voice and sight control would be allowed in two VSCAs established on the Great Meadow and Laguna Green, with physical barriers to separate these areas from other users. On-leash dog walking would be allowed on the sidewalks, paved trails, open areas around the housing, and the lawn area below the Laguna Street path. A total of 2.6 miles of trails and sidewalks and 5.2 acres of other grassy or paved areas would be available for on-leash dog walking. The new VSCAs total 6.3 acres of grassy area that would be available for dog walking under voice and sight control.

Impacts on visitors who would prefer to walk dogs at the park would be beneficial. Although some areas currently available to dogs would be closed, establishing two VSCAs at the site would be beneficial to this user group as 6.3 acres of would now allow off-leash dog walking. Visitors would have the option of taking dogs to VSCAs or on-leash dog walking areas. Therefore, dogs that do not receive enough exercise or become aggressive when restrained by a leash would still have the opportunity to walk under voice and sight control within the VSCAs. Upper and Lower Fort Mason is easily accessible from residential neighborhoods, and this would offer residents separate areas to allow dogs to be exercised and socialized. Visitors would have the opportunity to allow dogs to run and play with other dogs. Visitation by this user group would potentially increase in this area.

Impacts on visitors who would prefer not to have dog walking at this park site would be long term, moderate, and adverse. Because dogs would be allowed to be under voice and sight control in two separate VSCAs at the site, this group of visitors would likely avoid these areas. Although the VSCAs would be separated by a barrier from other users, visitor incidents related to dogs would be expected to continue to some degree as dog walkers have less control of their dogs when the dogs are not restrained on leash. Some areas of Upper and Lower Fort Mason would be available for a no-dog experience; however, these areas would be relatively small compared to the size of the VSCAs. Visitation by this user group at Upper and Lower Fort Mason would have the potential to decrease.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. In a VSCA, permit holders may walk one to six dogs under voice and sight control. The permit may restrict use by time and area. Permits would be allowed at Upper and Lower Fort Mason. Since commercial dog walking activity at Upper and Lower Fort Mason is common, it is likely that commercial dog walking would have beneficial impacts on visitors who would prefer to walk dogs at the park. Commercial dog walkers could continue to use the site for dog walking and would be able to have up to six dogs off leash in the VSCA. Impacts on visitors who would prefer not to have dog walking at the park would be long term, minor, and adverse. Visitors would continue to encounter dogs throughout the site and dog walkers with permits could have up to six dogs each.

Cumulative Impacts. Projects and actions in and near Fort Mason considered for the cumulative impacts analysis would be the same as those described under alternative B. When the impacts associated with these projects are added to the beneficial impacts (for those who prefer dogs) and long-term moderate adverse impacts (for those who do not prefer dogs) associated with alternative C of the dog management plan, cumulative impacts would be beneficial for visitors who would prefer to walk dogs at Fort Mason and long-term, minor, adverse for visitors who would prefer not to have dog walking at the site.

UPPER AND LOWER FORT MASON ALTERNATIVE C CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Beneficial impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice and sight control would be available in two VSCAs	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term moderate adverse impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Visitors would encounter dogs under voice and sight control; a small area for a no-dog experience would be available	Long-term minor adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative D: Most Protective of Resource Protection and Visitor Safety. Dog walking under voice and sight control would be allowed in a 2.5 acre VSCA in the Laguna Green area. On-leash dog walking would be allowed on the lawn below Laguna Street path and on all sidewalks, paved trails, parking lots, and open areas around housing. A total of 2.6 miles of trails and sidewalks and 13.5 acres of other grassy and paved areas would be available for on-leash dog walking.

Impacts on visitors who would prefer to walk dogs at the park would be beneficial. On-leash dog walking would be allowed in many areas, including the Great Meadow, sidewalks, roadways, paved trails, housing areas, parking lots, and the lawn area below the Laguna Street path. In addition to on-leash dog walking, visitors would be allowed to have their dogs under voice and sight control in the VSCA where dog owners would have an area for dogs to run and socialize with other dogs. Impacts would be beneficial because 2.5 acres of paved or grassy areas would now be available for off-leash dog walking. Visitors would have the option of taking dogs to the VSCA or on-leash dog walking areas. Therefore, dogs that do not receive enough exercise or become aggressive when restrained by a leash would still have the opportunity to walk under voice and sight control within the VSCA. Visitation by this user group may increase in this area.

Impacts on visitors who would prefer not to have dog walking at this park site would be long term, minor, and adverse. Dogs would still be present throughout the majority of the site and these visitors may avoid using the Laguna Green area because of off-leash dogs. Visitor incidents related to dogs would be expected to continue. Areas available for a no-dog experience would be expanded, including the Parade Ground (near the hostel). Some visitors may continue to avoid this area due to use by dog walkers. Visitation by this user group at Upper and Lower Fort Mason may decrease.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D. Impacts on visitors who would prefer to walk (includes commercial dog walkers) dogs at the site would be long term, minor, and adverse since commercial dog walking is common at this site. Visitation by commercial dog walkers would decrease. Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Visitors would no longer encounter dog walkers with four or more dogs.

Cumulative Impacts. Projects and actions in and near Fort Mason considered for the cumulative impacts analysis would be the same as those described under alternative B. When the impacts associated with

these projects are added to the beneficial impacts (for those who prefer dogs) and long-term minor adverse impacts (for those who do not prefer dogs) associated with alternative D of the dog management plan, cumulative impacts would be beneficial for visitors who would prefer to walk dogs at Fort Mason and negligible for visitors who would prefer not to have dog walking at the site.

UPPER AND LOWER FORT MASON ALTERNATIVE D CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Beneficial impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice and sight control would be available in a VSCA	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Visitors would encounter dogs throughout the site; a small area for a no-dog experience would be available	Negligible cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative E: Most Dog Walking Access / Most Management Intensive. Dog walking restrictions would be the same as alternative C and impacts on visitor use and experience would be the same as alternative C: beneficial impacts for visitors who would prefer to walk dogs and long-term moderate adverse impacts for visitors who would prefer not to have dog walking.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. In a VSCA, permit holders may walk one to six dogs under voice and sight control. The permit may restrict use by time and area. Permits would be allowed at Upper and Lower Fort Mason. Since commercial dog walking is common at Upper and Lower Fort Mason, it is likely that commercial dog walking would have beneficial impacts on visitors who would prefer to walk dogs at the park. Commercial dog walkers could continue to use the site for dog walking and would be able to have up to six dogs off leash in the VSCAs. Impacts on visitors who would prefer not to have dog walking at the park would be long term, minor, and adverse. Visitors would continue to encounter dogs throughout the site and dog walkers could have up to six dogs each.

Cumulative Impacts. Cumulative impacts would be the same as alternative C: beneficial impacts for visitors who prefer dogs at the park and long-term minor adverse impacts for visitors who do not prefer dogs at the park.

UPPER AND LOWER FORT MASON ALTERNATIVE E CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Beneficial impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice and sight control would be available in two VSCAs	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term moderate adverse impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Visitors would encounter dogs throughout the site; visitor incidents related to dogs would be expected to increase due to large VSCA areas; limited areas for a no-dog experience would be available	Long-term minor adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative F: Preferred Alternative. The preferred alternative would allow on-leash dog walking on the multi-use Fort Mason bay Trail; Black Point Battery Trail; Great Meadow paths and grass areas;

several grass areas between Van Ness Avenues south of Building 9 and Franklin Street; all sidewalks; the grass areas east of Building 101; and the triangulated grass area within Shafer Court. On-leash areas would include approximately 3 miles of trails and sidewalks and 12.6 acres of other grassy or paved areas. A 2.4 acre VSCA would be established on the Laguna Green. Fencing and/or other landforms, including a vegetative barrier would be installed at the VSCA to prevent dogs from entering the road or other on-leash dog walking areas.

Impacts on visitors who would prefer to walk dogs at the park would be beneficial. In addition to on-leash dog walking, and visitors would be allowed to have their dogs under voice and sight control in the VSCA. Dog owners would have an area for dogs to run and socialize with other dogs. Impacts would be beneficial because 2.4 new acres of paved or grassy areas would now be available for off-leash dog walking. Visitors would have the option of dog walking in the VSCA or the on-leash dog walking areas. Therefore, dogs that do not receive enough exercise or become aggressive when restrained by a leash would still have the opportunity to walk under voice and sight control within the newly established VSCA. Visitation by this user group may increase in this area.

Impacts on visitors who would prefer not to have dog walking at this park site would be long term, minor, and adverse. Dogs would still be present throughout the majority of the site and these visitors may avoid using the Laguna Green area because of off-leash dogs. Visitor incidents related to dogs would be expected to continue. Although areas available for a no-dog experience would be expanded, including the Parade Ground (near the hostel), piers at Lower Fort Mason, Community Gardens, and the General's Residence Area some visitors may avoid this area due to use by dog walkers. Visitation by this user group at Upper and Lower Fort Mason may decrease.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs at this site. In a VSCA, permit holders may walk one to six dogs under voice and sight control. The Great Meadow Picnic Area would be limited to walking up to three dogs. The permit may restrict use by time and area. Since commercial dog walking is common at Upper Fort Mason, it is likely that this alternative would have beneficial impacts on dog walkers who would prefer to walk more than three dogs at the park. Commercial dog walkers could continue to use the site for dog walking and would be able to have up to six dogs, and could have all six off leash in the VSCAs. Impacts on visitors who would prefer not to have dog walking at the park would be long term, minor, and adverse. Visitors would continue to encounter dogs throughout the site and dog walkers with permits could have up to six dogs each.

Cumulative Impacts. Projects and actions in and near Upper and Lower Fort Mason were considered for the cumulative impacts analysis (appendix K). In addition to the *Cosco Busan Recreational Use Restoration Projects Plan* described under alternative A of Stinson Beach, the following is a discussion of projects that have had, are currently having, or will have effects on visitor use and experience at or in the vicinity of Upper and Lower Fort Mason.

The improvement of the San Francisco Bay Trail at Laguna Street and Marina Boulevard at Upper and Lower Fort Mason is part of initiatives of the park stewardship programs, and included improved pedestrian and bicycle traffic flow, and revegetation of the landscape (GGNPC 2009, 1–2). The proposed extension of the Municipal Railway's Historic Streetcar Service would continue the F-line three blocks west from San Francisco Maritime National Historic Park through the Fort Mason Tunnel to the Fort Mason Center at GGNRA, for a total additional distance of about 0.85 mile, benefiting public transportation in the area. The restoration projects would enhance aesthetics, safety, and recreational enjoyment for all visitors to Upper and Lower Fort Mason.

Fort Mason was identified as a key site targeted for increasing accessibility in GGNRA. The project included improvements in accessibility of picnic areas, camping views, beaches, restrooms, interpretive and wayfinding signs, parking, and accessible routes to these amenities. Beneficial impacts to visitor use and experience would result from the improvements to accessibility of the sites for visitors with disabilities. The *Alcatraz Ferry Embarkation Project* would evaluate long-term embarkation sites from the San Francisco waterfront at Fort Mason to Alcatraz..

Cumulatively, all visitors, including both user groups would enjoy the enhanced viewshed of revegetated landscape and improved trails and safety that result from the trail improvements. Improved public access would benefit visitors except those who would prefer to walk dogs at Upper and Lower Fort Mason. It is unlikely that dogs, other than service dogs, would be allowed on the streetcars. As a result, visitors who prefer to walk dogs at the site would not benefit to the same degree as other visitors. The cumulative benefits from public access, and trail and restoration projects when considered with the dog management proposed under alternative F would not result in any substantial alteration of the impact intensity resulting from implementation of dog management under alternative F. Impacts to visitor use and experience would be beneficial for all users at Upper and Lower Fort Mason. Cumulative impacts would be beneficial for visitors who prefer dogs at the park and negligible for visitors who do not prefer dogs at the park.

UPPER AND LOWER FORT MASON PREFERRED ALTERNATIVE F CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Negligible impacts for visitors who would prefer to walk dogs at the park	On-leash dog walking would still be allowed and dog walking under voice and sight control would be available in a newly established VSCA	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Visitors would still encounter dogs throughout the site, including off-leash dogs in the newly established VSCA	Negligible adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Crissy Field

Common to All Alternatives. Impacts from dogs as a result of the two different definitions of the Crissy Field WPA [the 36 CFR 7.97(d) definition for alternative A and the Warming Hut to approximately 900 feet east of the former Coast Guard Pier definition for alternatives B–F] would be the same for all alternatives. Even though the WPA would be expanded for alternatives B–F, this change would not influence the overall impacts analysis at this site, because it would neither increase nor decrease the impacts described in the paragraphs that follow at Crissy Field. More explanation of these two definitions can be found in the “Current Regulations and Policies” section of chapter 2.

Alternative A: No Action. Dogs are currently allowed under voice control at Crissy Field except in the parking lots and picnic areas and in the WPA, where there is a seasonal restriction requiring on-leash dog walking. Currently there are approximately 2.9 miles of trails and 1.3 miles of beach available for off-leash dog walking. During the seasonal restriction the beach area available for off-leash dog walking is reduced to approximately 0.9 mile in length, with an additional approximately 0.4 mile available for on-leash dog walking within the WPA. In addition to the trails and beach, approximately 38.6 acres of other grassy or paved areas are available for off-leash dog walking. A total of approximately 0.3 mile of trails within the West Bluff picnic area and 3.2 acres of picnic areas are available for on-leash dog walking. The Crissy Field tidal marsh and lagoon are currently closed to dog walking through the GGNRA Compendium (NPS 2009e). The two picnic areas at Crissy Field are large-capacity picnic areas and they

are heavily used on good weather days and holidays. Picnic areas increase the length of stay by visitors at park sites. Visitor use at Crissy Field is moderate to high for multiple user groups, including runners, bicyclists, inline skaters, windsurfers, kite boarders, families with children, picnickers, and others. Commercial use activity permits, such as for “Baby Boot Camp” and other outdoor exercise businesses, special events, and increased bicycle rentals travelling through the area also contribute to the high visitor use at Crissy Field. Visitor use by individual and commercial dog walkers ranges from low to high. During the 2008 visitor use survey, 5.8 percent of visitors on Crissy Field trails were dog walkers (table 11) (IEC 2011, 10). The beach and water areas at East Beach and the western edge of the WPA are popular with families and children, and East and Central beaches are popular with dog walkers, including those who let dogs swim in the water. Overall visitor use in the WPA is low to moderate by walkers, beachgoers, and dog walkers (table 10). Compliance with dog walking regulations is low, from 2008 through 2011 total of 510 incidents were reported. Of the 510 incidents, 283 incidents were for having dogs within the Crissy Field WPA during the seasonal restriction (table 20a). Seventeen dog bites/attacks were also documented in the Crissy Field WPA. Between 2012 and 2016, a total of 98 dog-related incidents were recorded, with the majority being for animal complaints and leash law violations (table 20b). The NPS installed new fencing, gates, and signs at the eastern boundary of the WPA in January 2010 to better define where dog walking restrictions start. Gates and signs were also installed at entry points to the WPA. Commercial dog walkers typically walk five to eight dogs off leash at a time, and the site usually has about 5 to 10 commercial dog walkers a day using areas in Crissy Field for dog walking activities.

There would be no impact on visitors who would prefer to walk dogs at the park under the no-action alternative. Visitors would continue to have the opportunity to exercise and socialize their pets off leash throughout the majority of the site. Having dogs off leash and playing throughout the area may add to the park experience for visitors with dogs. Commercial dog walkers would continue to walk dogs with no maximum or permit required at any time. Visitation by this user group at Crissy Field would remain high and would not be expected to change.

Impacts on visitors who would prefer not to have dog walking at this park site would continue to be long term, moderate, and adverse. Visitor incidents (i.e., bites, attacks, injuries) involving dogs would be expected to continue resulting in more injuries to people or dogs. This is a moderate to high use site for multiple user groups. Some dogs would continue to jump on, knock over, or intimidate visitors, especially small children. During the public comment period for the draft plan/EIS, commenters described their experience at Crissy Field. One commenter stated, “I have 2 small children and I feel like I can't use the Crissy field beach due to off leash and aggressive dogs. Dogs often bark and target small children--making the beach unusable. And, dog themselves get into brawls off leash and it is dangerous for nearby children and people” (NPS 2011a, Correspondence 2035). Another commenter stated, “I love dogs but over the last couple of years its really gotten out of control there, children play in the sand where dogs do their business and run all over the place, while most owners aren't paying much attention. Also, dog fights break out often, causing adult frustration and arguments” (NPS 2011a, Correspondence 75). Seasonal leash law violations in the WPA would also continue and/or increase. Visitors would not be able to have a no-dog experience at this park site under alternative A. Some visitors may avoid this area due to the presence of dogs. Visitation by this user group at Crissy Field would have the potential to decrease due to the presence of dogs.

Under alternative A, no permit system exists for dog walking; however, commercial dog walkers frequently use Crissy Field for dog walking. Under alternative A, there would be no impact on visitors who would prefer to walk dogs at the park from commercial dog walking. Visitors would continue to walk any number of dogs and some visitors would continue to enjoy the presence of multiple dogs off leash. Impacts on visitors who would prefer not to have dog walking at the park from commercial dog

walking would be long term, moderate, and adverse. Some visitors may feel uncomfortable recreating in this area if dog walkers have multiple dogs under voice control at one time.

Cumulative Impacts. Projects and actions in and near Crissy Field were considered for the cumulative impacts analysis (appendix K). In addition to the *Cosco Busan Recreational Use Restoration Projects Plan* described under alternative A for Stinson Beach, the following is a discussion of projects that have had, are currently having, or will have effects on visitor use and experience at or in the vicinity of Crissy Field.

The Crissy Field Restoration Project, which began in 1998, restored the Crissy Field tidal marsh and dune habitat and also incorporated a fully accessible shoreline promenade, trails, boardwalks, overlooks, picnic areas, seating areas, and bicycle and inline skating paths. Beneficial impacts on visitor use and experience have resulted from this project as improved recreational opportunities have occurred. The Doyle Drive replacement project will replace the 73-year-old Doyle Drive and make structural and seismic improvements that will take place on lands in Area B of the Presidio (USDOT 2009, 1; Presidio Parkway 2010, 1). This project has the potential to adversely affect visitor accessibility to Crissy Field during project construction in the short term, but it will improve accessibility between Presidio Trust lands and GGNRA lands once the project is complete, resulting in beneficial impacts on visitor use and experience for all visitors. The PTMP includes the preservation of the Presidio's cultural, natural, scenic, and recreational resources. The PTMP focuses on the long-term preservation of the park, including replacing pavement with green space, improving and enlarging the park's trail system, restoring stream corridors and natural habitats, and reusing historic structures.

The proposed GGNRA interim compendium amendment would require commercial dog walkers in San Francisco and Marin counties to obtain a permit to walk more than three dogs at GGNRA sites, with a limit of six dogs. By reducing congestion and overcrowding, the amendment would have beneficial impacts on visitors who prefer dogs. It would also have beneficial impacts on visitors who prefer not to have dogs at the park. This proposed amendment may have adverse impacts on commercial dog walkers who want to walk more than three dogs at GGNRA, particularly because commercial dog walking use is considered high at Crissy Field. The cumulative impacts to visitors overall from the proposed interim compendium agreement are anticipated to be negligible.

Restoration projects have enhanced aesthetics; improved trails, recreational paths, and visitor amenities would increase safety and recreational enjoyment for all visitors to Crissy Field. All visitors, including both user groups would enjoy the enhanced viewshed of restored habitat and improved trails and safety that results from the trail improvements. However, it is expected that the level of cumulative impact would not affect the existing level of intensity of adverse impacts on visitors who would prefer not to have dog walking within the site. As a result, those visitors who prefer not to have dog walking at Crissy Field would continue to experience long-term major adverse impacts while those that prefer to walk dogs at Crissy Field would continue to benefit from enhanced trails, and other visitor amenities. Improved infrastructure on Doyle Drive would improve accessibility for all visitors to Crissy Field but since it is not directly related to dog-related visitor use, it is not expected to substantially alter the intensity of impacts for either user group under alternative A.

CRISSY FIELD ALTERNATIVE A CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
No impact for visitors who would prefer to walk dogs at the park	Dog walking would still be allowed on site and off leash	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term moderate adverse impacts for visitors who would prefer not to have dog walking at the park	Visitors would still encounter off-leash dog walking in most areas of the site	Long-term moderate adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative B: NPS Leash Regulation. No dogs would be allowed in the Crissy Field WPA, for the protection of wintering populations of the western snowy plover. On-leash dog walking would be allowed on the promenade, Crissy Airfield, East and Central beaches, paths leading to Central Beach, trails and grassy areas near East Beach, around the Old Coast Guard Station, and on the Mason Street bike path. A total of approximately 3.5 miles of trails, 0.8 mile length of beach, and 41.8 acres of other grassy or paved areas would be available for on-leash dog walking. The Crissy Field tidal marsh and lagoon are currently closed to dog walking through the GGNRA Compendium (NPS 2009e, 19).

Impacts on visitors who would prefer to walk dogs at the park would be long term, moderate to major, and adverse since off-leash dog walking would not be allowed. Although the amount of area available to dogs would only be reduced by approximately 0.4 mile of beach (the WPA), the park experience for visitors who prefer an off-leash dog walking experience would change. Adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. During the public comment period for the draft plan/EIS commenters stated the importance of off-leash dog walking for their dogs and for themselves. One commenter stated, “I have an 8 year old lab + I walk her daily at Crissy Field - it would be impossible for her to get enough exercise on leash and I am 82 years old and need to walk on the path for mobility & access...” (NPS 2011a, Correspondence 1666). Limiting dog walking areas would reduce visitors’ enjoyment of this site. In addition, it would be difficult for some visitors, particularly those that are disabled or elderly with mobility issues, to adequately control their dogs on-leash. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. Visitors looking for a VSCA for their pets, particularly those looking for an off-leash beach area, would have to go to other park sites in San Francisco County or adjacent counties. Visitation by visitors who would prefer to walk dogs at the park would decrease at this site as a result of alternative B.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Since dogs would be required to be on leash, visitors would no longer encounter dogs under voice control. Visitors who would prefer not to have dog walking at the park may feel more comfortable recreating at Crissy Field since dogs would be restrained on leash. Crissy Field provides a variety of visitor experiences with moderate to high visitation, and visitor incidents with dogs have occurred at this site in the past. It is likely that visitor incidents with dogs would be minimized once this on-leash regulation is established. Visitation by this user group would be expected to increase.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs on leash per person with no permit required. Since commercial dog walking is common at Crissy Field, it is likely that commercial dog walking would have long-term minor adverse impacts on visitors who would prefer to walk dogs at the park. Visitation by commercial dog walkers would be expected to decrease. Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Visitors would no longer encounter multiple dogs off leash.

Cumulative Impacts. Projects and actions in and near Crissy Field were considered for the cumulative impacts analysis (appendix K). In addition to the *Cosco Busan Recreational Use Restoration Projects Plan* described under alternative A for Stinson Beach, the following is a discussion of projects that have had, are currently having, or will have effects on visitor use and experience at or in the vicinity of Crissy Field.

The Crissy Field Restoration Project, which began in 1998, restored the Crissy Field tidal marsh and dune habitat and also incorporated a fully accessible shoreline promenade, trails, boardwalks, overlooks, picnic areas, seating areas, and bicycle and inline skating paths. Beneficial impacts on visitor use and experience have resulted from this project as improved recreational opportunities have occurred. The Doyle Drive replacement project will replace the 73-year-old Doyle Drive and make structural and seismic improvements that will take place on lands in Area B of the Presidio (USDOT 2009, 1; Presidio Parkway 2010, 1). This project has the potential to adversely affect visitor accessibility to Crissy Field during project construction in the short term, but it will improve accessibility between Presidio Trust lands and GGNRA lands once the project is complete, resulting in beneficial impacts on visitor use and experience for all visitors. The PTMP includes the preservation of the Presidio’s cultural, natural, scenic, and recreational resources. The PTMP focuses on the long-term preservation of the park, including replacing pavement with green space, improving and enlarging the park’s trail system, restoring stream corridors and natural habitats, and reusing historic structures.

When the impacts associated with these projects are added to the moderate to major adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative B of the dog management plan, cumulative impacts would be long-term, moderate to major, and adverse for visitors who would prefer to walk dogs at Crissy Field and beneficial for visitors who would prefer not to have dog walking at the site.

CRISSY FIELD ALTERNATIVE B CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate to major adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would be allowed on leash and in designated areas; off-leash dog walking would no longer be available	Long-term moderate to major adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; visitor conflicts with dogs would be reduced	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative C: Emphasis on Multiple Use – Balanced by County. Dog walking under voice and sight control would be available in VSCAs on Central Beach and the center portion of Crissy Airfield. The airfield VSCA is approximately 13.2 acres and Central Beach is approximately 0.5 mile in length. On-leash dog walking would be available along the promenade, the eastern and western sections of Crissy Airfield, the Mason Street bike path, trails and grassy areas near East Beach, around the Old Coast Guard Station, paths to Central Beach, and picnic areas. On-leash dog walking areas would include approximately 3.5 miles of trails and 28.6 acres of other grassy or paved areas. Dogs would not be allowed in the Crissy Field WPA or on East Beach. The Crissy Field tidal marsh and lagoon are currently closed to dog walking through the GGNRA Compendium (NPS 2009e, 19).

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor to moderate, and adverse. Adverse impacts would range from minor to moderate due to the high volume of dog walkers in this area and because visitors with dogs under voice and sight control would be allowed, although restricted to two VSCAs. The area available for off-leash dog walking would be reduced by 0.8

mile of beach and 25.4 acres of other grassy or paved areas. Although the area would be more limited than under the no-action alternative, alternative C would provide an area separated from other user groups for exercising and socializing dogs and would provide the off-leash experience on the beach that most visitors with dogs prefer. Dogs that do not receive enough exercise or become aggressive when restrained by a leash would still have the opportunity to walk under voice and sight control within the VSCAs. During the public comment period for the draft plan/EIS, some commenters expressed concerns about the size of the VSCA being too small for the number of dog walkers at Crissy Field. One commenter stated, “Alternative C ... is not large to be viable for all the dogs that use Crissy Field. Too small a space will crowd dogs and dog walkers and exacerbate whatever problems the GGNRA is trying to solve. Much of the year the tide is too high to use the beach and will further reduce the space which all dogs will be forced to use” (NPS 2011a, Correspondence 3). Accessibility to the VSCA has the potential to be an issue for elderly, handicapped, or visitors with small children. Having only limited parking adjacent to the proposed VSCA at Crissy Field, and the distance from the parking to Central Beach would make it difficult for elderly, disabled visitors and families with small children to access the VSCAs. One commenter stated, “The distance to the Central Beach makes it difficult for frail seniors and impossible for families with kids and dogs to manage to move themselves and their gear (strollers, beach stuff) from the parking lot over the bridge to the beach” (NPS 2011a, Correspondence 2813). Limiting dog walking areas would reduce visitors’ enjoyment of this site. Visitation by this user group would potentially decrease.

Impacts on visitors who would prefer not to have dog walking at this park site would be beneficial. Dogs would no longer be allowed off leash throughout the entire site; however, they would still be present in most areas. Dogs under voice and sight control would be restricted to the VSCAs, which could be easily avoided by this user group. Incidents between other user groups and dogs would potentially be minimized. Visitors who would prefer not to have dog walking at this park site would feel more comfortable with dog walking on leash than under voice control. A no-dog experience would be available on East Beach, which would be beneficial for these visitors, especially those with small children. During the public comment period for the draft plan/EIS, one commenter stated, “I often take my son to Crissy Field to play at the beach and practically every time we are there, a dog or dogs will come up to our picnic area and try to steal food or urinate on us and the owners do nothing” (NPS 2011a, Correspondence 282). Some visitors may continue to avoid this area because of the presence of dogs; however, visitation by this user group may increase because some individuals that have avoided this area due to the presence of dogs in the past may begin to use the area since dog walking would be more controlled.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. In a VSCA, permit holders may walk one to six dogs under voice and sight control. The permit may restrict use by time and area. Permits would be allowed at Crissy Field. Since commercial dog walking at Crissy Field is common, it is likely that commercial dog walking would have beneficial impacts on visitors who would prefer to walk dogs at the park. Commercial dog walkers could continue to use the site for dog walking and would be able to walk one to six dogs in the VSCAs. Impacts on visitors who would prefer not to have dog walking at the park would be long term, minor, and adverse. Visitors would continue to encounter dog walkers with four or more dogs throughout the site.

Cumulative Impacts. Projects and actions in and near Crissy Field considered for the cumulative impacts analysis would be the same as those described under alternative B. When the impacts associated with these projects are added to the minor to moderate adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative C of the dog management plan, cumulative impacts would be long-term, minor to moderate, and adverse for visitors

who would prefer to walk dogs at Crissy Field and beneficial for visitors who would prefer not to have dog walking at the site.

CRISSY FIELD ALTERNATIVE C CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice and sight control would be limited to designated areas	Long-term minor to moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking under voice and sight control would be restricted to designated areas	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative D: Most Protective of Resource Protection and Visitor Safety. Like alternatives B and C, dog walking would not be allowed in the Crissy Field WPA under alternative D. Dog walking under voice and sight control would be allowed in an approximately 15.4 acre VSCA on the western portion of Crissy Airfield. On-leash dog walking would be allowed on the promenade, the eastern portion of Crissy Airfield, the trails and grassy areas south of East Beach, around the Old Coast Guard Station, and the Mason Street bike path. A total of approximately 3.3 miles of trails and 23.2 acres of other grassy or paved areas would be available for on-leash dog walking. Dog walking would not be allowed on any beach under this alternative. The Crissy Field tidal marsh and lagoon is currently closed to dog walking through the GGNRA Compendium (NPS 2009e, 19).

Impacts on visitors who would prefer to walk dogs at the park would be long term, moderate, and adverse. Impacts would be adverse since most of the areas previously open to dogs under voice control under the no-action alternative would be designated for on-leash dog walking under alternative D except for the VSCA. Dog walking under voice and sight control would be concentrated in one area; however, this area is very large—slightly more than 15 acres. Impacts would be moderate since off-leash dog walking would not be allowed on any beach area in Crissy Field. A total of approximately 1.3 miles of beach area would no longer be available for dog walking. Visitors would no longer receive personal benefits from walking dogs on the beach. Even though visitors would no longer be able to walk dogs off leash throughout the entire site, an area would be available for dogs to exercise and socialize under voice and sight control without being restricted on leash. Dogs that do not receive enough exercise or become aggressive when restrained by a leash would still have the opportunity to walk under voice and sight control within the VSCAs. However, visitation by this user group could decrease since dog walkers would no longer have access to the beach. During the public comment period, one commenter stated, “Due to injuries, I can't go run my dog to tire her out, but I can take her to the beach at Crissy Field and let her run up and down the beach playing with other dogs. We go to that beach at least once a week with our dog, year round. It's a meet up place for people with dogs. We can enjoy the beautiful scenery while our dogs get a chance to run and be free. We go there rain or shine, fog or sun, to let our dogs run. 95% of the year the only people at the beach are people with dogs. It's not fair that the few days of warmth and sun when people without dogs go to the beach would ruin the rest of the year for the many dog owners in the bay area” (NPS 2011a, Correspondence 2341). Limiting dog walking areas would reduce visitors’ enjoyment of this site. Dog owners who specifically look for the beach/water experience for exercise for their dogs would probably not come to this site under this alternative.

Impacts on visitors who would prefer not to have dog walking at this park site would be beneficial. On-leash dog walking would be allowed throughout the entire site except for the VSCA, which would be approximately half the size of the VSCA established in alternative C, but still a substantial area (nearly 15 acres). It is likely that visitor incidents (bites/attacks) involving dogs would be minimized once this

regulation is established. This user group may feel more comfortable accessing the site with on-leash dog walking required; therefore, visitation by this user group may have the potential to increase. This alternative would not allow many areas for a no-dog experience, so some visitors may avoid this park site.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D. Impacts on visitors who would prefer to walk dogs at the site (includes commercial dog walkers) would be long term, minor, and adverse since commercial dog walking is common at this site. Visitation by commercial dog walkers would decrease. Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Visitors would no longer encounter dog walkers with four or more dogs.

Cumulative Impacts. Projects and actions in and near Crissy Field considered for the cumulative impacts analysis would be the same as those described under alternative D. When the impacts associated with these projects are added to the moderate adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative D of the dog management plan, cumulative impacts would be long-term, moderate, and adverse for visitors who would prefer to walk dogs at Crissy Field and beneficial for visitors who would prefer not to have dog walking at the site.

CRISSY FIELD ALTERNATIVE D CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate adverse impacts for visitors who would prefer to walk dogs	Dog walking under voice and sight control would be limited to designated areas	Long-term moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking under voice and sight control would be restricted to designated areas	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative E: Most Dog Walking Access / Most Management Intensive. Alternative E would provide the greatest area for dog walking of all the action alternatives at Crissy Field. On-leash dog walking would be allowed in the Crissy Field WPA. Dog walking would be allowed under voice and sight control in two VSCAs: Central Beach (approximately 0.5 mile in length) and all of Crissy Airfield (approximately 28.1 acres). On-leash dog walking would be allowed on the promenade, East Beach, paths to Central Beach, trails and grassy areas near East Beach, around the Old Coast Guard Station, and on the Mason Street Bike Path. A total of 3.5 miles of trails, 0.8 mile of beach, and 13.6 acres of other grassy or paved areas would be available for on-leash dog walking. The Crissy Field tidal marsh and lagoon is currently closed to dog walking through the GGNRA Compendium (NPS 2009e, 19).

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor, and adverse. Impacts would be minor since visitors would still have an off-leash dog experience, although restricted to two VSCAs. Although the area would be more limited than under the no-action alternative, alternative E would provide an area separated from other user groups for exercising and socializing dogs and would provide the voice and sight control experience on the beach that most visitors with dogs come to this site for. The area available for off-leash dog walking on the beach would be reduced by 0.8 mile and the area of other grassy or paved areas available for off-leash dog walking would be reduced by 10.5 acres. Dogs that do not receive enough exercise or become aggressive when restrained by a leash would still have the opportunity to walk under voice and sight control within the VSCAs. Accessibility to the beach VSCA has the potential to be an issue for elderly, handicapped, or visitors with small children, although the trails through the airfield VSCA would provide access for many. Issues include limited parking areas for handicapped persons and the length of the walk to the beach VSCA from the on-leash parking area. During the public comment period for the draft plan/EIS, visitors with disabilities and small children

expressed concerns for access to the VSCA on Central Beach. One commenter stated, “Due to a serious accident I can no longer skate or engage in strenuous activities and therefore the ambiance of Crissy Field has become even more important to our family. Our sons often bring our grandchildren to enjoy the space. As the proposed areas of elimination at Crissy field appear it would be almost impossible for a handicapped person with family and dog to get onto the beach” (NPS 2011a, Correspondence 2815). Another commenter stated, “The lack of parking would prevent many people, especially the disabled and seniors (like me) who cannot walk far, from exercising our dogs (e.g., throwing balls with Chuck-its). Our dogs badly need their exercise and cannot get needed exercise by extremely limited on-leash walking, because we cannot walk very far. We must have convenient off-leash areas” (NPS 2011a, Correspondence 1627). Limiting dog walking areas would reduce visitors’ enjoyment of this site. Visitation by this user group would decrease slightly.

Impacts on visitors who would prefer not to have dog walking at this park site would be beneficial. Dogs would no longer be allowed off leash throughout the entire site; however, they would still be allowed on leash in most areas. Dogs under voice and sight control would be restricted to the VSCAs, which could be easily avoided by this user group. Incidents between other user groups and dogs would potentially be minimized. Visitors who would prefer not to have dog walking at this park site would feel more comfortable with some areas requiring on-leash dog walking. Dogs would be under more control when restrained by a leash. Some visitors may continue to avoid this area because of the presence of dogs; however, visitation by this user group may increase because some individuals who have avoided this high conflict area in the past may begin to use the area since dog walking would be more controlled.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. In a VSCA, permit holders may walk one to six dogs under voice and sight control. The permit may restrict use by time and area. Permits would be allowed at Crissy Field. Since commercial dog walking is common at Crissy Field, it is likely that commercial dog walking would have beneficial impacts on visitors who would prefer to walk dogs at the park. Commercial dog walkers could continue to use the site for dog walking and would be able to walk one to six dogs off-leash in the VSCA. Impacts on visitors who would prefer not to have dog walking at the park would be long term, minor, and adverse. Visitors would continue to encounter dog walkers with four or more dogs throughout the site.

Cumulative Impacts. Projects and actions in and near Crissy Field considered for the cumulative impacts analysis would be the same as those described under alternative B. When the impacts associated with these projects are added to the minor adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative E of the dog management plan, cumulative impacts would be long-term, minor, and adverse for visitors who would prefer to walk dogs at Crissy Field and beneficial for visitors who would prefer not to have dog walking at the site.

CRISSY FIELD ALTERNATIVE E CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice and sight control would be limited to designated areas	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking under voice and sight control would be restricted to designated areas	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative F: Preferred Alternative. Dog walking under voice and sight control would be available in VSCAs on the central section of Crissy Airfield (approximately 10.8 acres) and Central Beach (approximately 0.5 mile in length) as well as 0.3 trail mile. The VSCA on the central section of Crissy Airfield would be bounded by paths on the eastern and western edges and by on-leash buffers along its northern and southern boundaries with landscape design demarcations. The design will create buffers between the off-leash dog area and the multi-use pathways at the Promenade and Mason Street. Additionally, the western path would separate dogs from the no-dog area in the western portion of the airfield. The VSCA on Crissy Airfield could be adjusted by approximately one acre to allow for future potential design updates and safety improvements, as proposed in future planning projects. On-leash areas within Crissy Airfield total 11.9 acres. On-leash dog walking is allowed within 3.8 miles of trail, and 1.3 acres within picnic areas. NPS would reduce or preclude the VSCA as dictated by special events, although special events are held most often on the western sections of Crissy Airfield. On-leash dog walking would be available along the promenade, the eastern section of Crissy Airfield, the paths to Central Beach, trails, flat grass, and composite areas near East Beach, between the Promenade Cut-off Trail and the park boundary, the East Beach parking lot, paths and hardened areas around the Old Coast Guard Station, the Mason Street bike path, and Crissy Field Warming Hut picnic area. Dogs would not be allowed in the Crissy Field WPA, or on East Beach, or within the West Bluff picnic area (3 acres) or the western section of Crissy Airfield (5.3 acres). The Crissy Field tidal marsh and lagoon are currently closed to dog walking through the GGNRA Compendium (NPS 2009e, 19).

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor to moderate, and adverse. Impacts would range from minor to moderate due to the high volume of dog walkers in this area and because visitors with dogs under voice and sight control would be allowed, although restricted to two VSCAs. Off-leash dog walking areas would be reduced by 0.8 mile of beach and 27.8 acres of grassy or paved areas. If the VSCA on Crissy Airfield is adjusted in the future by approximately one acre to allow for design updates and safety improvements additional impacts may occur. Although the area would be more limited than under the no-action alternative, the preferred alternative would provide an area separated from other user groups for exercising and socializing dogs and would provide the off-leash experience on the beach that most visitors with dogs that come to this site prefer. Dogs that do not receive enough exercise or become aggressive when restrained by a leash would still have the opportunity to walk under voice and sight control within the VSCAs. To reduce access issues to the VSCA on Central Beach, a handicapped accessible mat would be installed. Visitation by this user group would potentially increase because of better access for handicapped or elderly visitors with dogs.

Impacts on visitors who would prefer not to have dog walking at this park site would be beneficial. Dogs would no longer be allowed off leash throughout the entire site; however, they would still be allowed on leash in most areas. Dogs under voice and sight control would be restricted to the VSCAs, which could be easily avoided by this user group. Incidents between other user groups and dogs would potentially be minimized. Visitors who would prefer not to have dog walking at this park site would feel more comfortable with dog walking on leash than under voice control. A no-dog experience would be available on East Beach, which would be beneficial for these visitors, especially those with small children. Some visitors may continue to avoid this area because of the presence of dogs; however, visitation by this user group may increase because some individuals who have avoided this area due to the presence of dogs in the past may begin to use the area since dog walking would be more controlled.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. In a VSCA, permit holders may walk one to six dogs under voice and sight control. The permit may restrict use by time and area. Permits would be allowed at Crissy Field. Dog walkers with four to six dogs and an NPS-issued permit would be allowed at Crissy Airfield, portions of Crissy Promenade that lead from East Beach parking lot to the eastern-most Central Beach

access path and from Crissy Airfield to the Central Beach VSCA, and the Mason Street multi-use path. Since commercial dog walking is common at Crissy Field, it is likely that commercial dog walking would have beneficial impacts on visitors who would prefer to walk dogs at the park. Commercial dog walkers could continue to use the site for dog walking and would be able to walk one to six dogs off-leash in the VSCA. Impacts on visitors who would prefer not to have dog walking at the park would be long term, minor, and adverse. Visitors would continue to encounter dog walkers with four or more dogs throughout the site.

Cumulative Impacts. Projects and actions in and near Crissy Field were considered for the cumulative impacts analysis (appendix K). In addition to the *Cosco Busan Recreational Use Restoration Projects Plan* described under alternative A, the following is a discussion of projects that have had, are currently having, or will have effects on visitor use and experience at or in the vicinity of Crissy Field.

The Crissy Field Restoration Project, which began in 1998, restored the Crissy Field tidal marsh and dune habitat and also incorporated a fully accessible shoreline promenade, trails, boardwalks, overlooks, picnic areas, seating areas, and bicycle and inline skating paths. Beneficial impacts on visitor use and experience have resulted from this project. The Doyle Drive replacement project will replace the 73-year-old Doyle Drive and make structural and seismic improvements that will take place on lands in Area B of the Presidio (USDOT 2009, 1; Presidio Parkway 2010, 1). This project has the potential to adversely affect visitor accessibility to Crissy Field during project construction in the short term, but it will improve accessibility between Presidio Trust lands and GGNRA lands once the project is complete, resulting in beneficial impacts on visitor use. The PTMP includes the preservation of the Presidio’s cultural, natural, scenic, and recreational resources. The PTMP focuses on the long-term preservation of the park, including replacing pavement with green space, improving and enlarging the park’s trail system, restoring stream corridors and natural habitats, and reusing historic structures.

Restoration projects would enhance aesthetics; improved trails, recreational paths, and visitor amenities would increase safety and recreational enjoyment for all visitors to Crissy Field. All visitors, including both user groups would enjoy the enhanced viewshed of restored habitat, improved trails and safer conditions that results from the trail improvements. Improvements to the infrastructure of Doyle Drive would benefit all visitors to Crissy Field by providing improved access; however, this project combined with the restoration and improvement projects at Crissy Field do not directly affect dog management or dog-related visitors and as a result, do not cumulatively add to or take away from the impacts expected from the preferred alternative. As a result, beneficial impacts would occur for those visitors who prefer not to have dog walking at Crissy Field from implementation of designated and more restrictive dog management. Those visitors that prefer to walk dogs at Crissy Field would find a long-term minor adverse impact to their visitor use and experience as a result of the preferred alternative.

CRISSY FIELD PREFERRED ALTERNATIVE F CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice and sight control would be limited to designated areas	Long-term minor to moderate adverse cumulative impacts on visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking under voice and sight control would be restricted to designated areas	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Fort Point Promenade/Fort Point National Historic Site Trails

Alternative A: No Action. Currently, on-leash dog walking is allowed at the Fort Point Promenade, Battery East Trail, Andrews Road, Presidio Promenade, and the grassy area near the restrooms. This totals approximately 1.5 miles of trails and 0.2 acre of other grassy or paved areas available for dog walking. Dogs are prohibited inside the fort and on the pier. From 2008 through 2011, 23 dog-related incidents were reported with 15 off-leash violations (table 21a). From 2012 to 2016, 5 dog-related incidents were reported (table 21b). Park staff members frequently observe visitors walking their dogs off leash. Fort Point Promenade/Fort Point NHS Trails is a moderate to high use area for multiple user groups, including runners, walkers, and bicyclists along the Fort Point Promenade on the entrance road. Dog walking is considered a low to high use activity (table 10). There is also high to moderate use of the pier by fishermen. In addition, the Fort Point Promenade runs along a public roadway (Marine Drive), so the site is busy with motorists, including large tour vehicles.

Under the no-action alternative, there would be no impact on visitors who would prefer to walk dogs at the park. Visitors would continue to be able to walk dogs on leash throughout the site, although some visitors would continue to occasionally let their dogs run without a leash. Visitation by this user group would be expected to remain the same.

Impacts on visitors who would prefer not to have dog walking at this park site would continue to be long term, minor, and adverse. Multiple user groups would continue to use this site for recreation, including runners, walkers, dog walkers, and bicyclists. User groups such as runners and bicyclists may prefer to experience this site without the presence of dogs. There would be little opportunity for a no-dog experience on the grounds of Fort Point; however, most visitors to this site come to see the historic fort and the scenic views of the Golden Gate Bridge. Visitation by this user group would not be expected to change as tourism would continue unrelated to alternatives for dog management at GGNRA.

Under alternative A, no permit system exists for dog walking. At Fort Point, commercial dog walking is uncommon. The impacts from commercial dog walkers to visitor experience are similar to the impacts discussed above for both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at this park site.

Cumulative Impacts. Projects and actions in and near Fort Point Promenade/Fort Point NHS Trails were considered for the cumulative impacts analysis (appendix K). Projects include the Doyle Drive replacement project and the PTMP, which are described under alternative A for Crissy Field. The project also includes the proposed GGNRA interim compendium amendment, which would require commercial dog walkers in San Francisco and Marin counties to obtain a permit to walk more than three dogs at GGNRA sites, with a limit of six dogs. By reducing congestion and overcrowding, the amendment would have beneficial impacts on visitors who prefer dogs. It would also have beneficial impacts on visitors who prefer not to have dogs at the park. Although this proposed amendment may have adverse impacts on commercial dog walkers who want to walk more than three dogs at GGNRA, commercial dog walking use is considered low at Fort Point.

When the improvements to the aesthetics of the area and potential increase in visitation from these projects are added to the impacts associated with the dog management plan under alternative A, cumulative impacts would be beneficial for visitors who prefer dogs at the park and long-term, minor, adverse for visitors who do not prefer dogs at the park.

FORT POINT PROMENADE/FORT POINT NATIONAL HISTORIC SITE TRAILS ALTERNATIVE A CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
No impact for visitors who would prefer to walk dogs	On-leash dog walking would still be allowed on site	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park	Visitors would still encounter dogs throughout the site; little opportunity for a no-dog experience would exist	Long-term minor adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative B: NPS Leash Regulation. Alternative B would be similar to alternative A. On-leash dog walking would be allowed at the Fort Point Promenade, Battery East Trail, Andrews Road, Presidio Promenade, and the grassy area near the restrooms. A total of approximately 1.5 miles of trail and 0.2 acre of other grassy or paved areas would be available for on-leash dog walking. No off-leash dog walking would be available under this alternative. On-leash dog walking would be based on a 6-foot dog leash.

Impacts on visitors who would prefer to walk dogs at the park would be negligible. The amount of area open to dog walking and the dog walking regulation would be the same as the no-action alternative. Visitors would continue to be able to walk dogs on leash throughout the site. Visitation by this user group would likely remain the same.

Impacts on visitors who would prefer not to have dog walking at the park would range from negligible to long term, minor, and adverse since this is a low to high use site for dog walkers. Visitors would continue to encounter dogs throughout the site. This site would continue to have little area offering a no-dog experience. Visitation by this user group at Fort Point Promenade/Fort Point NHS Trails would likely remain the same.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs on leash per person with no permit required. Since commercial dog walking at Fort Point Promenade/Fort Point NHS Trails is not common, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Fort Point Promenade/Fort Point NHS Trails were considered for the cumulative impacts analysis (appendix K). Projects include the Doyle Drive replacement project and the PTMP, which are described under alternative A for Crissy Field. When the impacts associated with these projects are added to the negligible impacts associated with alternative B of the dog management plan, cumulative impacts would be negligible for visitors who would prefer to walk dogs at Fort Point and negligible to long-term, minor, and adverse for visitors who would prefer not to have dog walking at the site.

FORT POINT PROMENADE/FORT POINT NATIONAL HISTORIC SITE TRAILS ALTERNATIVE B CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Negligible impacts for visitors who would prefer to walk dogs in the park	On-leash dog walking would still be allowed on site	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Negligible to long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Visitors would still encounter dogs throughout the site	Negligible to long-term minor adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative C: Emphasis on Multiple Use – Balanced by County. Restrictions on dog walking under alternative C would be the same as under alternative B and impacts on visitor experience would also be the same: negligible for visitors who would prefer to walk dogs at the park and negligible to long term, minor, and adverse for visitors who would prefer not to have dog walking at this park site.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be issued for Fort Point Promenade/Fort Point NHS Trails, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Fort Point Promenade/Fort Point NHS Trails, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Cumulative impacts would be the same as alternative B: negligible for visitors who would prefer to walk dogs at Fort Point and negligible to long-term, minor, and adverse for visitors who would prefer not to have dog walking at the site.

FORT POINT PROMENADE/FORT POINT NATIONAL HISTORIC SITE TRAILS ALTERNATIVE C CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Negligible impacts for visitors who would prefer to walk dogs at the park	On-leash dog walking would still be allowed on site	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Negligible to long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Visitors would still encounter dog walking throughout the site	Negligible to long-term minor cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, on-leash dog walking would be allowed only along the Battery East Trail, which allows dog walkers to travel from Crissy Field to the Golden Gate Bridge. A total of approximately 0.4 mile of trails would be available for on-leash dog walking.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor, and adverse. The area available for on-leash dog walking would be reduced by 1.1 miles of trail and 0.2 acre of other grassy or paved areas. Dog owners may also feel that their pets are not receiving adequate exercise with the reduced acreage available. Although alternative D would restrict dog walking to one trail, the trail traverses the entire shoreline from the Crissy Field/Marina Gate to the Golden Gate Bridge. Limiting dog walking areas would reduce visitors’ enjoyment of this site. Some visitors may begin to access different

parcs due to the limited area for dog walking at this site. Visitation by this user group at Fort Point Promenade/Fort Point NHS Trails may decrease slightly.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Since dogs would be limited to only the Battery East Trail, visitors would have the opportunity to experience many areas in the site without the presence of dogs, and visitor incidents between multiple user groups and dogs would not likely occur. This alternative would provide for the most visitor safety in areas highly congested with motor vehicle and bicycle traffic and multiple user groups. Visitation by this user group would be expected to increase at the site.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D. Private dog walkers would be allowed up to three dogs. Since commercial dog walking is not common at the Fort Point Promenade/Fort Point NHS Trails, it is likely that prohibiting commercial dog walking from this site would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Fort Point considered for the cumulative impacts analysis would be the same as those described under alternative B. When the impacts associated with these projects are added to the long-term, minor, adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) impacts associated with alternative D of the dog management plan, cumulative impacts would be long-term, minor, and adverse for visitors who prefer dogs at Fort Point and beneficial for visitors who would prefer not to have dog walking at the site.

FORT POINT PROMENADE/FORT POINT NATIONAL HISTORIC SITE TRAILS ALTERNATIVE D CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would be allowed on leash and in designated areas	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking would be allowed on leash and in limited areas; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative E: Most Dog Walking Access / Most Management Intensive. Dog walking restrictions under alternative E would be the same as under alternative B and impacts on visitor experience would also be the same: negligible impacts on visitors who would prefer to walk dogs at the park and negligible impacts to long-term minor adverse impacts on visitors who would prefer not to have dog walking at this park site.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be issued for Fort Point Promenade/Fort Point NHS Trails, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Fort Point Promenade/Fort Point NHS Trails, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Cumulative impacts would be the same as alternative B: negligible for visitors who would prefer to walk dogs at Fort Point and negligible to long-term, minor, and adverse for visitors who would prefer not to have dog walking at the site.

FORT POINT PROMENADE/FORT POINT NATIONAL HISTORIC SITE TRAILS ALTERNATIVE E CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Negligible impacts for visitors who would prefer to walk dogs at the park	On-leash dog walking would still be allowed on site	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Negligible to long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Visitors would still encounter dog walking throughout the site	Negligible to long-term minor adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative F: Preferred Alternative. The preferred alternative would include on-leash dog walking along the Fort Point Promenade, Bay Trail, Battery East Trail, Andrews Road, Presidio Promenade, and the Coastal Trail west of the Golden Gate Bridge. A total of approximately 1.5 miles of trail and 0.2 acre of other grassy or paved areas would be available for on-leash dog walking. Off-leash dog walking would not be available at the site under this alternative. On-leash dog walking would be based on a 6-foot dog leash.

Impacts on visitors who would prefer to walk dogs at the park would be negligible. The area open to dog walking and the dog walking regulation would be the same as the no-action alternative. Visitors would continue to be able to walk dogs on leash throughout the site. Visitation by this user group would likely remain the same.

Impacts on visitors who would prefer not to have dog walking at the park would range from negligible to long term, minor, and adverse since this is a low use site for dog walkers. Visitors would continue to encounter dogs throughout the site. This site would continue to have little area offering a no-dog experience. During the public comment period for the draft plan/EIS commenters stated concerns about the amount of area at Fort Point available for a no-dog experience. One commenter stated, "...we believe there is a decided lack of opportunity to have a "no dog" experience or to even avoid unwelcome approaches by dogs, given the narrowness of many of the trails" (NPS 2011a, Correspondence 4215). Visitation by this user group at Fort Point Promenade/Fort Point NHS Trails would likely remain the same.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be issued for Fort Point Promenade/Fort Point NHS Trails, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Fort Point Promenade/Fort Point NHS Trails, it is likely that commercial dog walking would have negligible impacts on visitors who would prefer to walk dogs at the park and on visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Fort Point Promenade/Fort Point NHS Trails were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on visitor use and experience at or in the vicinity of Fort Point Promenade/Fort Point NHS Trails.

Improvements are being made to Fort Point facilities to improve visitor accessibility (NPS 2010g, 1). The Doyle Drive replacement project will replace the 73-year-old Doyle Drive and make structural and seismic improvements that will take place on lands in Area B of the Presidio (USDOT 2009, 1; Presidio Parkway 2010, 1). This project has the potential to adversely affect visitor accessibility to Fort Point Promenade/Fort Point NHS Trails during project construction in the short term, but it will improve accessibility between Presidio Trust lands and GGNRA lands once the project is complete, resulting in beneficial impacts on visitor use for all visitors to Fort Point. Better accessibility could potentially increase visitation to Fort Point for all visitors including both user groups and especially for tourists and other visitors who come to Fort Point for the viewshed and cultural resource. These visitors would be expected to visit Fort Point for short time periods and would not venture along trails to a great extent; however, an increase in encounters with dogs could be expected for this user group as well as for visitors who come to Fort Point and would prefer not to have dog walking at the site. The PTMP includes the preservation of the Presidio’s cultural, natural, scenic, and recreational resources. The PTMP focuses on the long-term preservation of the park, including replacing pavement with green space, improving and enlarging the park’s trail system, restoring stream corridors and natural habitats, and reusing historic structures. The PTMP would be beneficial for all park users as these projects would improve aesthetics of the area.

When the impacts associated with these projects are added to the negligible impacts associated with alternative F of the dog management plan, cumulative impacts would be negligible for visitors who would prefer to walk dogs at Fort Point and negligible to long-term, minor, and adverse for visitors who would prefer not to have dog walking at the site.

**FORT POINT PROMENADE/FORT POINT NATIONAL HISTORIC SITE TRAILS PREFERRED ALTERNATIVE F
CONCLUSION TABLE**

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Negligible impacts for visitors who would prefer to walk dogs at the park	On-leash dog walking would still be allowed on site	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Negligible to long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Visitors would still encounter dogs throughout the site	Negligible to long-term minor cumulative impacts for visitors who would prefer not to have dog walking at the park

Baker Beach and Bluffs to Golden Gate Bridge

Alternative A: No Action. Currently, dogs under voice control are allowed on Baker Beach north of Lobos Creek. A total of approximately 0.6 mile of beach is available for off-leash dog walking. On-leash dog walking is allowed in the picnic areas, the parking areas, and the trails to the beach except for the Batteries to Bluff Trail, which does not allow dogs. This area includes approximately 5.3 miles of trails available for on-leash dog walking. Visitor use in this area is low to moderate for dog walkers and low to moderate for beachgoers and picnickers on the weekends and holidays (table 10). During the 2008 visitor use study, 6.9 percent of visitors at the sand ladder were dog walkers (table 11) (IEC 2011, 10). A total of 86 dog-related incidents were reported between 2008 and 2011. The majority of incidents were for having dogs off-leash or within a closed area. In addition 6 dog bites or attacks were reported during this period (table 22a). A total of 49 dog-related incidents were reported between 2012 and 2016 with the majority being for animal complaints and dog walkers in closed areas (table 22b).

There would be no impact on visitors who would prefer to walk dogs at the park under the no-action alternative. Visitors would continue to exercise, play with, and socialize their dogs under voice control

along the beach and walk their dogs on leash in the picnic area and parking lots. Visitation by this user group would remain the same.

Impacts on visitors who would prefer not to have dog walking at this park site would be long term, minor to moderate, and adverse. Visitors would continue to encounter both on-leash dogs and dogs under voice control at this site. Although few visitor incidents between user groups such as beachgoers and picnickers and visitors with dogs have been documented, the potential for incidents to occur would remain. In addition, this is a low to moderate use site for visitors with dogs. During the public comment period on the draft plan/EIS, commenters described conditions at Baker Beach, “Dogs running around without a leash are a major problem in the Golden Gate National Recreation Area. Too often the dogs get too close to people who are afraid of them, barking wildly. I see them on trails, such as the Battery to Bluffs Trail, where they are not allowed” (NPS 2011a, Correspondence 2798). The presence of dogs under voice control on the beach may frighten some visitors, especially those with small children. In addition, beachgoers and picnickers may prefer to experience these activities without the presence of dogs. Visitation by this user group at Baker Beach and Bluffs to Golden Gate Bridge could decrease.

Under alternative A, no permit system exists for dog walking. At Baker Beach, commercial dog walking is uncommon. The impacts from commercial dog walkers to visitor experience are similar to the impacts discussed above for both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at this park site.

Cumulative Impacts. Projects and actions in and near Baker Beach and Bluffs to Golden Gate Bridge were considered for the cumulative impacts analysis (appendix K). In addition to the *Cosco Busan Recreational Use Restoration Projects Plan* described under alternative A for Stinson Beach and the PTMP described under alternative A for Crissy Field, the following is a discussion of projects that have had, are currently having, or will have effects on visitor use and experience at or in the vicinity of Baker Beach and Bluffs to Golden Gate Bridge.

Between August and November of 2007, 73,000 tons of landfill debris was unearthed by excavators at Baker Beach and conveyed to the top of the cliffs as part of a restoration effort (Presidio Trust 2010a, 1). Additionally, in 2008 park stewardship programs completed improvements on the Batteries to Bluffs Trail on the bluffs just north of Baker Beach. Baker Beach has been identified as a key site targeted for increasing accessibility in GGNRA and design is underway for improvements in accessibility of picnic areas, camping views, beaches, restrooms, interpretive and wayfinding signs, and parking and accessible routes to these amenities.

The proposed GGNRA interim compendium amendment would require commercial dog walkers in San Francisco and Marin counties to obtain a permit to walk more than three dogs at GGNRA sites, with a limit of six dogs. By reducing congestion and overcrowding, the amendment would have beneficial impacts on visitors who prefer dogs. It would also have beneficial impacts on visitors who prefer not to have dogs at the park. Although this proposed amendment may have adverse impacts on commercial dog walkers who want to walk more than three dogs at GGNRA, commercial dog walking use is considered low at Baker Beach.

These projects have resulted in benefits from improved aesthetics and access for all visitors at Baker Beach. Therefore, cumulative effects would be beneficial for those who prefer to walk dogs and long-term, minor, and adverse for those visitors who prefer not to have dogs at the site.

BAKER BEACH AND BLUFFS TO GOLDEN GATE BRIDGE ALTERNATIVE A CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
No impact for visitors who would prefer to walk dogs at the park	Dog walking would still be allowed on site, both on leash and off leash	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term minor to moderate adverse impacts for visitors who would prefer not to have dog walking at the park	Visitors would still encounter dog walking throughout the site	Long-term minor adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative B: NPS Leash Regulation. On-leash dog walking would be allowed on Baker Beach, in picnic and parking areas, and on all trails except for the Batteries to Bluffs Trail and the Battery Crosby Trail, where dogs would be prohibited. In total, approximately 5.2 miles of trails and 0.6 mile of beach would be available for on-leash dog walking.

Impacts on visitors who would prefer to walk dogs at this park site would be long term, minor to moderate, and adverse. Impacts would be minor to moderate and adverse because dogs would no longer be allowed to run off leash along the beach and this site receives low to moderate use by dog walkers, many of which allow their dogs to be off leash. Dog walking would be required to be on leash; however, the area available for dog walking would only be reduced by approximately 0.1 mile of trail. Adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. During the public comment period, one commenter stated, “If our dog wasn't allowed off lead at Baker or Ocean Beach, he would be depressed. I love my dog, and it would hurt me to see him on lead for 45 minutes around our house rather than out for 1:45 at a beach. It is our responsibility as dog owners to protect our dogs.... it will only worsen our dogs lives, and frustrate their owners” (NPS 2011a, Correspondence 1674). Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. In addition, it would be difficult for some visitors, particularly those that are disabled or elderly with mobility issues, to adequately control their dogs on-leash. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. Some visitors in this user group may find a different park to exercise their dogs off leash. As a result, visitation by local residents may decrease slightly in this area.

Impacts on visitors who would prefer not to have dog walking at this park site would be beneficial. Since dogs would be required to be on leash, visitors would no longer encounter dogs under voice control. Visitors who would prefer not to have dog walking at the park may feel more comfortable recreating at Baker Beach and Bluffs to Golden Gate Bridge since dogs would be restrained on leash. Visitation by this user group would have the potential to increase.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs on leash per person with no permit required. Since commercial dog walking is not common at Baker Beach and Bluffs to Golden Gate Bridge, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Baker Beach and Bluffs to Golden Gate Bridge were considered for the cumulative impacts analysis (appendix K). In addition to the *Cosco Busan Recreational Use Restoration Projects Plan* described under alternative A for Stinson Beach and the PTMP described under alternative A for Crissy Field, the following is a discussion of projects that have had, are currently having, or will have effects on visitor use and experience at or in the vicinity of Baker Beach and Bluffs to Golden Gate Bridge.

Between August and November of 2007, 73,000 tons of landfill debris was unearthed by excavators at Baker Beach and conveyed to the top of the cliffs as part of a restoration effort (Presidio Trust 2010a, 1). Additionally, in 2008 park stewardship programs completed improvements on the Batteries to Bluffs Trail on the bluffs just north of Baker Beach. Baker Beach has been identified as a key site targeted for increasing accessibility in GGNRA and design is underway for improvements in accessibility of picnic areas, camping views, beaches, restrooms, interpretive and wayfinding signs, and parking and accessible routes to these amenities.

When the impacts associated with these projects are added to the long-term, minor to moderate and adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative B of the dog management plan, cumulative impacts would be long-term, minor, adverse for visitors who would prefer to walk dogs at Baker Beach and Bluffs to Golden Gate Bridge and beneficial for visitors who would prefer not to have dog walking at the site.

BAKER BEACH AND BLUFFS TO GOLDEN GATE BRIDGE ALTERNATIVE B CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would be allowed on leash and in designated areas; no dog walking under voice control would be available	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative C: Emphasis on Multiple Use – Balanced by County. Dog walking restrictions under alternative C would be the same as those under alternative B. Impacts on visitor use and experience would be the same as under alternative B: long term, minor to moderate, and adverse for visitors who would prefer to walk dogs at the park and beneficial for visitors who would prefer not to have dog walking at this park site.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. Permits would be allowed at Baker Beach. Impacts to visitor use and experience from permit holders with six dogs off-leash are expected to increase under this alternative; however, since commercial dog walking is not common at Baker Beach, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Cumulative impacts would be the same as alternative B: long-term minor adverse impacts on visitors who would prefer to walk dogs at the park and beneficial impacts on visitors who would prefer not to have dog walking at the park.

BAKER BEACH AND BLUFFS TO GOLDEN GATE BRIDGE ALTERNATIVE C CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would be allowed on leash and in designated areas; no dog walking under voice control would be available	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative D: Most Protective of Resource Protection and Visitor Safety. Alternative D would be the most restrictive alternative for dog walking at Baker Beach and Bluffs to Golden Gate Bridge. Dog walking would be prohibited on the beach north of the north parking lot. On-leash dog walking would be allowed on the beach south of the north end of the north parking lot, parking lots and picnic areas, and the trails to the southern beach area, and the Coastal Trail. A total approximately 5.1 miles of trails and approximately 0.2 mile of beach would be available for on-leash dog walking.

Impacts on visitors who would prefer to walk dogs at the park would be long term, moderate, and adverse. An area for dogs to be off leash would no longer exist at this site and the area available for dog walking would be reduced by 0.2 mile of trail and 0.4 mile of beach. Adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. During the public comment period, one commenter expressed the importance of dog walking at Baker Beach, “My dog and I have gone to Baker Beach twice daily for the last five years. It has been a lifesaver not only for me because of the opportunity to exercise and socialize” (NPS 2011a, Correspondence 1755). Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. Limiting dog walking areas would reduce visitors’ enjoyment of this site. In addition, it would be difficult for some visitors, particularly those that are disabled or elderly with mobility issues, to adequately control their dogs on-leash, although there are other accessible sites for walking dogs off leash within GGNRA. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. Visitors may begin to use other parks in the city for off-leash dog walking. Visitation by this user group may decrease at this site.

Impacts on visitors who would prefer not to have dog walking at this park site would be beneficial. Since dogs would be required to be on leash, visitors would no longer encounter dogs under voice control. This alternative would give visitors an opportunity to experience a large section of the site without the presence of dogs and would provide a second beach in GGNRA San Francisco lands that would be entirely available for a no-dog beach experience. Visitors may feel more comfortable in areas where on-leash dog walking would be required. It is likely that potential incidents between other user groups and dogs would be minimized. Visitation by this user group would be expected to increase at this site.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D. Private dog walkers would be allowed up to three dogs. Since commercial dog walking is not common at Baker Beach and Bluffs to Golden Gate Bridge, it is likely that prohibiting commercial dog walking from this site would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Baker Beach and Bluffs to Golden Gate Bridge considered for the cumulative impacts analysis would be the same as those described under alternative B. When the impacts associated with these projects are added to the long-term, moderate and adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated

with alternative D of the dog management plan, cumulative impacts would be long-term, minor, adverse for visitors who would prefer to walk dogs at Baker Beach and Bluffs to Golden Gate Bridge and beneficial for visitors who would prefer not to have dog walking at the site.

BAKER BEACH AND BLUFFS TO GOLDEN GATE BRIDGE ALTERNATIVE D CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would be allowed on leash and in designated areas; no dog walking under voice control would be available	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; a no-dog experience would be available on the beach	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative E: Most Dog Walking Access / Most Management Intensive. Alternative E would provide the most dog walking access of all the alternatives. Dog walking under voice and sight control would be allowed in an approximately 0.2 mile VSCA on the portion of Baker Beach from the north parking lot south to the NPS boundary near Lobos Creek. On-leash dog walking would be allowed on the approximately 0.4 mile portion of Baker Beach north of the north parking lot, in picnic areas and parking lots, and on 5.2 miles of trails, except the Batteries to Bluffs and the Battery Crosby trails, where dog walking would be prohibited.

Impacts on visitors who would prefer to walk dogs at the park would be negligible. Even though visitors would no longer be allowed to have dogs under voice control along the entire beach, the VSCA would still provide the opportunity for exercising and socializing under voice and sight control. The VSCA on the beach would be reduced by approximately 0.4 miles and on-leash trails would be reduced by approximately 0.1 miles. Dogs would be walked on leash on the northern section of the beach. Visitors would have the option of walking dogs in the VSCA or in the on-leash dog walking areas. Dogs that do not receive enough exercise or become aggressive when restrained by a leash would still have the opportunity to walk under voice and sight control within the VSCA. Impacts would be negligible since this site is not considered a high use area for dog walking and dog walkers would have a VSCA on the beach. Visitation by this user group would be expected to remain the same.

Impacts on visitors who would prefer not to have dog walking at this park site would be long term, minor, and adverse. Impacts would be minor because dogs would still be allowed throughout the site and dogs would be off leash on the south portion of the beach. Visitors would still encounter both on-leash dogs and dogs under voice and sight control. Although dogs are not allowed on the Batteries to Bluffs and Battery Crosby trails, an entirely no-dog experience would not be available under alternative E. Visitation by this user group would have the potential to decrease.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. In a VSCA, permit holders may have up to six dogs off-leash, and the permit may restrict use by time and area. Permits allowing dog walkers to walk four to six dogs would be granted at Baker Beach and Bluffs to Golden Gate Bridge. Since commercial dog walking is not common at this site, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Baker Beach and Bluffs to Golden Gate Bridge considered for the cumulative impacts analysis would be the same as those described under alternative B. When the impacts associated with these projects are added to the negligible impacts (for those who prefer dogs) and minor adverse impacts (for those who do not prefer dogs) associated with alternative E of the dog management plan, cumulative impacts would be beneficial for visitors who would prefer to walk dogs at Baker Beach and Bluffs to Golden Gate Bridge and negligible for visitors who would prefer not to have dog walking at the site.

BAKER BEACH AND BLUFFS TO GOLDEN GATE BRIDGE ALTERNATIVE E CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Negligible impact for visitors who would prefer to walk dogs at the park	Dog walking would be allowed on most of the site; dog walking under voice and sight control would be available	Beneficial cumulative impacts for visitors who would prefer to walk dogs at the beach
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Visitors would still encounter dogs throughout the site; an entirely no-dog experience would not be available	Negligible cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative F: Preferred Alternative. The preferred alternative would allow on-leash dog walking on the North Beach between the north terminus of the beach and the Baker Beach Access Trail #2. On-leash dog walking would also be allowed on the Coastal Trail from the northern boundary of the site to the Baker Beach parking lot, Baker Beach Access Trails #1 and 2, the access paths from both the 25th Avenue gate to the beach and from that southern beach below NPS lands to a trail along the eastern side between the northern and southern parking lot to the intersection with the 25th Avenue path, and the North Picnic Area. A total of approximately 2 miles of trails and 0.3 mile of beach would be available for on-leash dog walking. No dog walking would be allowed in the South Picnic Area, on the beach south of Baker Beach Access Trail #2, or on trails accessing the south section of Baker Beach, including the riparian area around Lobos Creek outlet.

Impacts on visitors who would prefer to walk dogs at the park would be long term, moderate, and adverse. An area for dogs to be off leash would no longer exist at this site and the area available for dog walking would be reduced by approximately 3.3 miles of trail and 0.3 mile of beach. Adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash at the beach. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. Limiting dog walking areas would reduce visitors’ enjoyment of this site. In addition, it would be difficult for some visitors, particularly those that are disabled or elderly with mobility issues, to adequately control their dogs on-leash, although there are other accessible sites for walking dogs off leash within GGNRA. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. Visitors may begin to use other parks in the city, both within and outside GGNRA, for off-leash dog walking. Visitation by this user group may decrease at this site. During the public comment period, one commenter stated, “I find the proposed changes to be most unacceptable, and feel that they will basically end the use of this area for recreational use by dog owners and their companion animals” (NPS 2011a, Correspondence 361).

Impacts on visitors who would prefer not to have dog walking at this park site would be beneficial. Since dogs would be required to be on leash, visitors would no longer encounter dogs under voice control. This alternative would give visitors an opportunity to experience a large section of the site without the presence of dogs and would provide a second beach in GGNRA San Francisco lands that would be entirely available for a no-dog beach experience. Visitors may feel more comfortable in areas where on-

leash dog walking would be required. It is likely that potential incidents between other user groups and dogs would be minimized. Visitation by this user group would be expected to increase at this site.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. Permits would be allowed at Baker Beach and Bluffs to Golden Gate Bridge. The North Beach, Baker Beach Access Trail #2, and the northern and southern parking lots would be open to dog walkers with four to six on-leash dogs with a NPS-issued permit. All other designated dog walking areas would only permit walkers with up to three dogs. Since commercial dog walking is not common at Baker Beach and Bluffs to Golden Gate Bridge, it is likely that commercial dog walking would have negligible impacts on visitors who would prefer to walk dogs at the park and a negligible impact for visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Baker Beach and Bluffs to Golden Gate Bridge were considered for the cumulative impacts analysis (appendix K).

In addition to the *Cosco Busan Recreational Use Restoration Projects Plan* described under alternative A for Stinson Beach and the PTMP described under alternative A for Crissy Field, the following is a discussion of projects that have had, are currently having, or will have effects on visitor use and experience at or in the vicinity of Baker Beach and Bluffs to Golden Gate Bridge.

Between August and November of 2007, 73,000 tons of landfill debris was unearthed by excavators at Baker Beach and conveyed to the top of the cliffs as part of a restoration effort (Presidio Trust 2010a, 1). Additionally, in 2008, park stewardship programs completed improvements on the Batteries to Bluffs Trail on the bluffs just north of Baker Beach. Baker Beach was identified as a key site targeted for increasing accessibility in GGNRA and design is in progress for projects that include improvements in accessibility of picnic areas, camping views, beaches, restrooms, interpretive and wayfinding signs, and parking and accessible routes to these amenities.

These projects have resulted in benefits from improved aesthetics and access for all visitors at Baker Beach. Therefore, cumulative effects would be long-term, minor, adverse for those who prefer to walk dogs and beneficial for those visitors who prefer not to have dogs at the site.

BAKER BEACH AND BLUFFS TO GOLDEN GATE BRIDGE PREFERRED ALTERNATIVE F CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would be allowed on leash and in designated areas; no dog walking under voice control would be available	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Off-leash dog walking would no longer be allowed; a no-dog experience would be available on the beach	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Fort Miley

Alternative A: No Action. Currently, dogs under voice control are allowed at both East and West Fort Miley. A total of approximately 0.5 mile of trail and 2.5 acres of other grassy or paved areas are available for off-leash dog walking. Fort Miley is a low dog use area mostly used by local residents, and by bird-watchers, picnickers, and patients from the VA Hospital. Fort Miley is located adjacent to the VA

Hospital and has heavy pedestrian/vehicle traffic and construction traffic. No pet-related violations have been recently documented at Fort Miley.

No impact on visitors who would prefer to walk dogs at the park would be expected under the no-action alternative. Dog walkers would continue to have the opportunity to walk dogs off leash in East and West Fort Miley. This site would continue to be an easily accessed area for local residents to let their dogs run and socialize with other dogs. Having dogs off leash and playing throughout the area may add to the park experience for visitors with dogs. No change in visitation by this user group at Fort Miley would be expected.

Impacts on visitors who would prefer not to have dog walking at the park would be long term, minor, and adverse. Visitors would continue to encounter both on-leash dogs and dogs under voice control at this site. Impacts would be minor since the site is not a high use dog walking area and since there is no documentation of pet-related violations at this site. Picnickers may prefer to experience this activity without the presence of dogs. VA hospital patients may also prefer to visit the site without the presence of dogs. Some visitors may continue to avoid this site due to the presence of dogs; however, visitation would likely remain the same.

Under alternative A, no permit system exists for dog walking. At Fort Miley, commercial dog walking is uncommon. The impacts from commercial dog walkers to visitor experience are similar to the impacts discussed above for both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at this park site.

Cumulative Impacts. There is one known project that has had, is currently having, or will have effects on visitor use and experience in the vicinity of this park site. The proposed GGNRA interim compendium amendment would require commercial dog walkers in San Francisco and Marin counties to obtain a permit to walk more than three dogs at GGNRA sites, with a limit of six dogs. By reducing congestion and overcrowding, the amendment would have beneficial impacts on visitors who prefer dogs. It would also have beneficial impacts on visitors who prefer not to have dogs at the park. Although this proposed amendment may have adverse impacts on commercial dog walkers who want to walk more than three dogs at GGNRA, commercial dog walking use is considered low at Fort Miley.

The proposed interim compendium amendment is directly related to dog management and would have overall beneficial cumulative impacts, but these impacts are not expected to be great enough to alter the intensity of the expected impacts from the implementation of the preferred alternative for either user group. As a result, cumulative impacts are considered negligible.

Cumulative impacts on the visitor use and experience of visitors who would prefer to walk dogs at the park under alternative A, would result in negligible cumulative impacts on this user group. Impacts on the visitor use and experience of visitors who would prefer not to have dog walking at the park would be long term, minor, and adverse under alternative A.

FORT MILEY ALTERNATIVE A CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
No impact for visitors who would prefer to walk dogs at the park	Dog walking would still be allowed on site, both on leash and off leash	Negligible cumulative impacts for visitors who would prefer to walk dogs
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park	Visitors would still encounter dogs throughout the site	Long-term minor adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative B: NPS Leash Regulation. Under alternative B, dogs would no longer be allowed at either East or West Fort Miley. Dogs would be prohibited for number of reasons, including conflicting uses with popular recreational pursuits such as bird-watching and picnicking. Due to the concrete bunkers edged by steep embankments at both East and West Fort Miley and the location of the VA Hospital directly adjacent to the site, safety is a concern at this location. This site typically has VA hospital patients using the area and heavy pedestrian and vehicular traffic, which causes safety concerns for both visitors and dogs.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor, and adverse. Impacts would be minor since dog walking use at this site is considered low. Visitors would no longer receive personal benefits from walking dogs at the site. Visitors looking for an area to walk their dogs off leash would now have to go to one of the city dog parks. Visitation by this user group would be expected to decrease at this site.

Impacts on visitors who would prefer not to have dog walking at the park site would be beneficial. The entire Fort Miley site would be available for a no-dog experience. Picnickers, bird-watchers, and VA hospital patients who would prefer to experience the site without the presence of dogs would benefit under this alternative. Visitors who have avoided this site in the past due to the presence of dogs may begin to use this site for recreational purposes. Visitation by this user group would be expected to increase at this site.

Since dogs would not be allowed at this site the impacts to commercial dog walkers are similar to the impacts discussed above for visitors who would prefer to walk dogs at the park.

Cumulative Impacts. There are no known projects that would impact the resources at Fort Miley. As such, cumulative impacts would be the same as direct impacts: long-term minor adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative B, of the dog management plan, cumulative impacts would be long-term, minor, adverse for visitors who would prefer to walk dogs at Fort Miley and beneficial for visitors who would prefer not to have dog walking at the site.

FORT MILEY ALTERNATIVE B CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	No dog walking would be allowed; site is low use area for dog walkers	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking would no longer be allowed on site; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative C: Emphasis on Multiple Use – Balanced by County. Under alternative C, on-leash dog walking would be allowed only in the trail corridor along the east edge of East Fort Miley. A total of approximately 0.2 mile of trails would be available for on-leash dog walking.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor, and adverse. Dogs would no longer be allowed in West Fort Miley and on-leash dog walking would be restricted to a trail corridor in East Fort Miley. Dogs would no longer be allowed to run off leash throughout the entire site. Because dog walking would be required to be on leash and the area available for dog walking would be reduced by approximately 0.3 mile of trail and 2.5 acres of other grassy or paved areas, adverse

impacts would be expected for visitors who enjoy watching and playing with dogs off leash. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. Limiting dog walking areas would reduce visitors’ enjoyment of this site. In addition, it would be difficult for some visitors, particularly those that are disabled or elderly with mobility issues, to adequately control their dogs on-leash, although there are other accessible sites for walking dogs off leash within GGNRA. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. Visitors looking for a place to walk their dogs off leash would have to use other park sites. Impacts would be minor since the area is considered a low use area for dog walking. Visitation by this user group would likely remain the same at this site.

Impacts on visitors who would prefer not to have dog walking at this park site would be beneficial. Since dogs would be required to be on leash, visitors would no longer encounter off-leash dogs. This alternative would provide visitors the opportunity for recreational experiences without the presence of dogs in West Fort Miley. This alternative would separate dog walkers from other user groups such as ropes course users, school groups, and picnickers. A no-dog experience would be provided in the picnic areas at both East and West Fort Miley. Visitation by this user group would have the potential to increase, since visitors who previously avoided the site because of the presence of dogs may begin to use Fort Miley.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be granted at Fort Miley, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking activity is not common at this site, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Cumulative impacts would be the same as alternative B: long-term minor and adverse for visitors who would prefer dogs at the park and beneficial for visitors who do not prefer dogs at the park.

FORT MILEY ALTERNATIVE C CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Off-leash dog walking would no longer be allowed; area for on-leash dog walking would be reduced	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking under voice control would no longer be allowed; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative D: Most Protective of Resource Protection and Visitor Safety. Restrictions on dog walking under alternative D would be the same as under alternative B and impacts on visitor use and experience would also be the same: long term, minor, and adverse for visitors who would prefer to walk dogs at the park and beneficial for visitors who would prefer not to have dog walking at this park site.

Since dogs would not be allowed at this site the impacts to commercial dog walkers are similar to the impacts discussed above in alternative B for visitors who would prefer to walk dogs at the park.

Cumulative Impacts. Cumulative impacts would be the same as alternative B: long-term minor and adverse for visitors who prefer dogs at the park and beneficial for visitors who do not prefer dogs at the park.

FORT MILEY ALTERNATIVE D CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would no longer be allowed on site; site is low use area for dog walking	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking would no longer be allowed on site; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative E: Most Dog Walking Access / Most Management Intensive. Under alternative E, on-leash dog walking would be allowed in the trail corridor along the east edge of East Fort Miley and on the road through West Fort Miley. A total of approximately 0.4 mile of trails/roads would be available for on-leash dog walking.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor, and adverse. The amount of area available for dog walking would be reduced by approximately 0.1 mile of trail and 2.5 acres of other paved or grassy areas. In addition, dogs would no longer be allowed to run off leash throughout the entire site. Because dog walking would be required to be on leash and the area available for dog walking would be reduced, adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. Limiting dog walking areas would reduce visitors’ enjoyment of this site. In addition, it would be difficult for some visitors, particularly those that are disabled or elderly with mobility issues, to adequately control their dogs on-leash, although there are other accessible sites for walking dogs off leash within GGNRA. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. Visitors looking for a place to walk their dogs off leash would have to use other park sites. Impacts would be minor since the area is considered a low use area for dog walking. Visitation by this user group would likely remain the same at this site.

Impacts on visitors who would prefer not to have dog walking at this park site would be beneficial. Since dogs would be required to be on leash, visitors would no longer encounter off-leash dogs. This alternative would provide visitors the opportunity for recreational experiences without the presence of dogs in the majority of East and West Fort Miley. This alternative would separate dog walkers from other user groups such as ropes course users, school groups, and picnickers. A no-dog experience would be provided in the picnic areas at both East and West Fort Miley. Visitation by this user group would have the potential to increase, since visitors who previously avoided the site because of the presence of dogs may begin to use Fort Miley.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be granted at Fort Miley, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Fort Miley, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Cumulative impacts would be the same as alternative B: long-term minor and adverse for visitors who prefer dogs at the park and beneficial for visitors who do not prefer dogs at the park.

FORT MILEY ALTERNATIVE E CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Off-leash dog walking would no longer be allowed; area for on-leash dog walking would be reduced	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking under voice control would no longer be allowed; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative F: Preferred Alternative. The preferred alternative is the same as alternative C. On-leash dog walking would be allowed only in the trail corridor between Clement Street and the NPS boundary along the east edge of East Fort Miley. A total of approximately 0.2 mile of trail would be available for on-leash dog walking. No dog walking would be permitted in West Fort Miley.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor, and adverse. Dogs would no longer be allowed in West Fort Miley and on-leash dog walking would be restricted to a trail corridor in East Fort Miley. Dogs would no longer be allowed to run off leash throughout the entire site. Because dog walking would be required to be on leash and the area available for dog walking would be reduced by approximately 0.3 mile of trail and 2.5 acres of other grassy or paved areas, adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. Limiting dog walking areas would reduce visitors’ enjoyment of this site. In addition, it would be difficult for some visitors, particularly those that are disabled or elderly with mobility issues, to adequately control their dogs on-leash, although there are other accessible sites for walking dogs off leash within GGNRA. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. Visitors looking for a place to walk their dogs off leash would have to use other park sites. Impacts would be minor since the area is considered a low use area for dog walking. Visitation by this user group would likely remain the same at this site.

Impacts on visitors who would prefer not to have dog walking at this park site would be beneficial. Since dogs would be required to be on leash, visitors would no longer encounter off-leash dogs. This alternative would provide visitors the opportunity for recreational experiences without the presence of dogs in West Fort Miley. This alternative would separate dog walkers from other user groups, such as ropes course users, school groups, and picnickers. A no-dog experience would be provided in the picnic areas at both East and West Fort Miley. Visitation by this user group would have the potential to increase, since visitors who previously avoided the site because of the presence of dogs may begin to use Fort Miley.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be granted at Fort Miley, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at this site, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. There are no known projects that would impact the resources at Alta Trail/Orchard Fire Road or Pacheco Fire Road. As such, cumulative impacts would be the same as direct impacts: long-term minor adverse cumulative impacts on use and experience of visitors who would prefer to walk dogs at GGNRA. The preferred alternative would result in beneficial impacts for visitors would prefer not to have dog walking at the park.

FORT MILEY PREFERRED ALTERNATIVE F CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Off-leash dog walking would no longer be allowed; area for on-leash dog walking would be reduced	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking under voice control would no longer be allowed; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Lands End

Alternative A: No Action. Currently, dogs are allowed under voice control throughout Lands End. A total of approximately 3.3 miles of trails are available for off-leash dog walking. Visitation by dog walkers is considered low to moderate and visitation by walkers and runners is usually moderate at this site (table 10). Pet-related incidents are low at the site; however, 5 incidents from 2008 through 2011 included dog rescues from the Lands End cliffs (table 23a). Because of safety concerns (steep cliffs, poison-oak, ticks) many dog walkers tend to keep their pets on leash. Visitor use in this area has increased since restoration activities and FRA-accessibility upgrades to the Lands End Coastal Trail were completed in 2008. Visitation at this park site is anticipated to increase with the recently constructed visitor center.

There would be no impact on visitors who would prefer to walk dogs at the park under the no-action alternative. Visitors would continue to walk dogs both on and off leash throughout the site. Dogs would continue to receive exercise and socialize with the other dogs and people throughout the area. Having dogs off leash and playing throughout the area may add to the park experience for visitors with dogs. No change in visitation by this user group at Lands End would be expected.

Impacts on visitors who would prefer not to have dog walking at this park site would be long term, minor, and adverse. Dog walking under voice control would continue throughout the site. Visitors would continue to encounter both on-leash dogs and dogs under voice control at this site. Impacts would be minor since the number of dogs in the area is typically low to moderate. This site would not offer visitors a no-dog experience under alternative A. Some pedestrians and hikers may prefer dogs to be walked on leash for safety reasons. During the public comment period some commenters expressed concerns about having off-leash dogs along the Lands End Coastal Trail. One commenter stated, “I have been in (and witnessed) numerous dangerous situations with dogs and their owners while walking the Coastal trail and I fear it is only a matter of time before someone is seriously injured. This trail is heavily used by joggers, tourists and hikers of all ages. In several parts, the trail is narrow, uneven, steep and bordered by cliffs. There are blind corners, tight turns and several stair cases. When dogs both leashed and unleashed are being led through these sections, it creates serious congestion and apprehension for the parties involved, as well as the potential for serious injury” (NPS 2011a, Correspondence 4463). These conditions would likely continue under the no-action alternative. Some visitors may feel uncomfortable around off-leash dogs and would prefer a no-dog experience, so they would continue to avoid the Lands End site. Visitation by this user group would have the potential to decrease.

Under alternative A, no permit system exists for dog walking. At Lands End, commercial dog walking is uncommon. The impacts from commercial dog walkers to visitor experience are similar to the impacts discussed above for both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at this park site.

Cumulative Impacts. Projects and actions in and near Lands End were considered for the cumulative impacts analysis (appendix K). Efforts by park stewardship programs at Lands End included development of a new promenade and overlook as well as resurfacing and stabilizing segments of the trail, eliminating damaged social trails, replanting native species in the local forest and surrounding areas, and engaging the community in park stewardship (GGNPC 2010c, 1). Park stewardship programs development and restoration efforts have created beneficial impacts on visitor experience this park site. In addition, a visitor center was recently constructed at Lands End. This visitor center enhances the visitor experience and is anticipated to increase visitation for all visitors including both user groups that are the focus of this final plan/EIS.

The proposed GGNRA interim compendium amendment would require commercial dog walkers in San Francisco and Marin counties to obtain a permit to walk more than three dogs at GGNRA sites, with a limit of six dogs. By reducing congestion and overcrowding, the amendment would have beneficial impacts on visitors who prefer dogs. Although this proposed amendment may have adverse impacts on commercial dog walkers who want to walk more than three dogs at GGNRA, commercial dog walking use is considered low at Lands End.

Restoration projects at Lands End will result in enhanced aesthetics; improved trails and visitor amenities and recreational enjoyment for all visitors to Land End. All visitors, including both user groups would enjoy the enhanced viewshed of restored habitat and improved trails and safety that results from the trail improvements and would increase visitation to Lands End for all visitors including both user groups. Alternative A would allow dogs under voice control at Lands End and, with an increase in visitation, encounters with dogs for visitors who prefer not to have dog walking at the site could alter the intensity of impacts expected under alternative A from long-term minor adverse to moderate and adverse, especially for visitors using the trail system at the site. Those visitors who would prefer to walk dogs at the site would benefit from the improved trails.

LANDS END ALTERNATIVE A CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
No impact for visitors who would prefer to walk dogs at the park	Dog walking would still be allowed on site, both on leash and off leash	Beneficial cumulative impacts for visitors who would prefer to walk dogs
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park	Visitors would still encounter dogs throughout the site	Negligible cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative B: NPS Leash Regulation. Under alternative B, on-leash dog walking would be allowed on the El Camino del Mar Trail, Lands End Coastal Trail, and connecting steps. A total of approximately 2.6 miles of on-leash dog walking trails would be available. On-leash dog walking would be based on an allowed 6-foot dog leash.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor to moderate, and adverse. Impacts would be considered minor to moderate because this site can receive moderate use by dog walkers and dogs would not be allowed to run off leash throughout the entire site. Because dog walking would be required to be on leash and the area available for dog walking would be reduced to two

designated trails, adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. The trails available for dog walking would be reduced by approximately 0.7 mile of trail. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. During the public comment period for the draft plan/EIS, one commenter stated, “Lands End is a joyous place to walk with our dog. She gets a chance to smell flowers and walks close to our side. But at the same time she feels free not being on a 6 ft leash” (NPS 2011a, Correspondence 1446). Some visitors in this user group may find a different park to exercise their dogs off leash. As a result, visitation by local residents with dogs may decrease slightly in this area.

Impacts on visitors who would prefer not to have dog walking at the site would be beneficial. Since dogs would be required to be on leash, visitors would no longer encounter dogs under voice control. Since dogs would only be allowed on two trails, the opportunity for a no-dog experience would exist. Since dogs would no longer be off leash some visitors, especially bicyclists, may feel more comfortable using the trails at the site. Visitor incidents between user groups (dog bites/attacks) may decrease. Visitation by this user group would have the potential to increase.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs on leash per person with no permit required. Since commercial dog walking is not common at Lands End, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Lands End were considered for the cumulative impacts analysis (appendix K). Efforts by park stewardship programs at Lands End included development of a new promenade and overlook as well as resurfacing and stabilizing segments of the trail, eliminating damaged social trails, replanting native species in the local forest and surrounding areas, and engaging the community in park stewardship (GGNPC 2010c, 1). Park stewardship programs development and restoration efforts have created beneficial impacts on visitor experience this park site. In addition, a visitor center was recently constructed at Lands End. This visitor center enhances the visitor experience and is anticipated to increase visitation for all visitors including both user groups that are the focus of this final plan/EIS.

When the impacts associated with these projects are added to the long-term minor to moderate adverse impacts (for those who prefer dogs) and to the beneficial impacts (for those who do not prefer dogs) associated with alternative B of the dog management plan, cumulative impacts would be long-term, minor, and adverse for visitors who would prefer to walk dogs at Lands Ends and beneficial for visitors who would prefer not to have dog walking at the site.

LANDS END ALTERNATIVE B CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice control would no longer be allowed; on-leash dog walking would be limited to two trails	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking under voice control would no longer be allowed; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative C: Emphasis on Multiple Use – Balanced by County. Restrictions on dog walking under alternative C would be the same as under alternative B and impacts on visitor use and experience would

also be the same: long term, minor to moderate, and adverse for visitors who would prefer to walk dogs at the park and beneficial for visitors who would prefer not to have dog walking at this park site.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Lands End is not one of the park sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity is not common at this site, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Cumulative impacts would be the same as alternative B: long-term, minor, and adverse for visitors who would prefer to walk dogs at Lands Ends and beneficial for visitors who would prefer not to have dog walking at the site.

LANDS END ALTERNATIVE C CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice control would not be allowed; on-leash dog walking would be limited to two trails	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking under voice control would not be allowed; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative D: Most Protective of Resource Protection and Visitor Safety. Alternative D would be the most restrictive for dog walking in the site. On-leash dog walking would be available on the El Camino del Mar Trail, and on the Lands End Coastal Trail from the Merrie Way parking lot to the junction with, and on, the connector trail/steps leading to the El Camino del Mar Trail. A total of approximately 1.7 miles of trails would be available for on-leash dog walking.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor to moderate, and adverse. This alternative offers the least amount of area for dog walking. Almost half of the Lands End Coastal Trail would no longer be available for visitors with dogs. The area available for dog walking would be reduced by approximately 0.8 miles of trail. In addition, there would be no voice control dog walking area for visitors to let their dogs run and socialize with other dogs. Adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. Impacts would be minor to moderate, and the area typically receives moderate use by dog walkers. Limiting dog walking areas would reduce visitors' enjoyment of this site. Some visitors in this user group may find a different park to exercise their dogs off leash. As a result, visitation by local residents may decrease slightly in this area.

Impacts on visitors who would prefer not to have dog walking at the park site would be beneficial. This alternative would provide about half the length of the Lands End Coastal Trail as an area for recreation without the presence of dogs. In addition, dogs under voice control would no longer be present on the trails at this site and incidents between user groups would likely diminish. Visitation by this user group would likely increase.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D. Private dog walkers would be allowed up to three dogs. Since commercial dog walking is not common at Land End, it is likely that prohibiting commercial dog walking from this site would have negligible

impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Lands End considered for the cumulative impacts analysis would be the same as those described under alternative B. When the impacts associated with these projects are added to the long-term minor to moderate adverse impacts (for those who prefer dogs) and to the beneficial impacts (for those who do not prefer dogs) associated with alternative D of the dog management plan, cumulative impacts would be long-term, minor, and adverse for visitors who would prefer to walk dogs at Lands Ends and beneficial for visitors who would prefer not to have dog walking at the site.

LANDS END ALTERNATIVE D CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice control would no longer be allowed; on-leash dog walking would be limited to designated areas	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking under voice control would no longer be allowed; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative E: Most Dog Walking Access / Most Management Intensive. Restrictions on dog walking under alternative E would be the same as under alternative B and impacts on visitor use and experience would also be the same: long term, minor to moderate, and adverse for visitors who would prefer to walk dogs at the park and beneficial for visitors who would prefer not to have dog walking at this park site.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Lands End is not one of the park sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity is not common at this site, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Cumulative impacts would be the same as alternative B: long-term, minor, adverse for visitors who would prefer to walk dogs at Lands Ends and beneficial for visitors who would prefer not to have dog walking at the site.

LANDS END ALTERNATIVE E CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice control would no longer be allowed; on-leash dog walking would be limited to two trails	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking under voice and sight control would be restricted to one area; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative F: Preferred Alternative. The preferred alternative would allow on-leash dog walking on the El Camino del Mar Trail from the park boundary to the Lands End parking lot, the Lands End Coastal

Trail, and the connecting trails and steps. A total of approximately 2.5 miles of trails would be available for on-leash dog walking. On-leash dog walking would be based on an allowed 6-foot dog leash.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor to moderate, and adverse. Impacts would be considered minor to moderate because this site can receive moderate use by dog walkers and dogs. Dogs would no longer be allowed to run off leash throughout the entire site. Because dog walking would be required to be on leash and the area available for dog walking would be reduced to two designated trails, adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. The area available for dog walking would be reduced by 0.7 mile of trail. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. Some visitors in this user group may find a different park to exercise their dogs off leash. As a result, visitation by local residents may decrease slightly in this area.

Impacts on visitors who would prefer not to have dog walking at the site would be beneficial. Since dogs would be required to be on leash, visitors would no longer encounter dogs under voice control. Since dogs would only be allowed on two trails, the opportunity for a no-dog experience would exist. Since dogs would no longer be off leash, some visitors (such as bicyclists) may feel more comfortable using the sections of trails open to bicyclists at the site. During the public comment period for the draft plan/EIS one commenter stated, "It is appropriate to have dogs on leash on the Coastal Trail so that all visitors may have a good experience. The people who use the widest portion of this trail between Pt. Lobos Avenue and the end of the improved area are often older, disabled, or appear to be visitors from other countries" (NPS 2011a, Correspondence 4354). Visitor incidents between user groups (dog bites/attacks) may decrease. Visitation by this user group would have the potential to increase.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Lands End is not one of the park sites where permits to walk more than three dogs would be issued. Since commercial dog walking at Lands End is not common, it is likely that commercial dog walking would have a negligible impact on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Lands End were considered for the cumulative impacts analysis (appendix K). The efforts of park stewardship programs at Lands End included development of a new promenade and overlook as well as resurfacing and stabilizing segments of the trail, eliminating damaged social trails, replanting native species in the local forest and surrounding areas, and engaging the community in park stewardship (GGNPC 2010c, 1). The park stewardship programs development and restoration efforts have created beneficial impacts on visitor experience this park site. In addition, a visitor center was recently constructed at Lands End, and is anticipated to increase visitation at the site.

Projects at Lands End will result in enhanced aesthetics; improved trails and visitor amenities and recreational enjoyment for all visitors to Land End. All visitors, including both user groups would enjoy the enhanced viewshed of restored habitat and improved trails and safety that results from the trail improvements and would increase visitation to Lands End for all visitors including both user groups. Alternative F would allow dogs on leash on specifically designated trails that with a predicted increase in visitation would continue to result in encounters with dogs for visitors who prefer not to have dog walking at the site; however, dogs would be restricted to designated areas and by a leash. As a result, visitors who prefer not to have dog walking at the site would continue to benefit under alternative F. Although visitors who would prefer to walk dogs at the site would benefit from the improved trails, they would be restricted to designated trails and to on-leash dog walking and as a result, any enhancements and resulting from the project at Lands End would not greatly alter their visitor experience; expected impacts would be long-term, minor, and adverse.

LANDS END PREFERRED ALTERNATIVE F CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice control would no longer be allowed; on-leash dog walking would be limited to two trails	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking under voice control would no longer be allowed; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Sutro Heights Park

Alternative A: No Action. On-leash dog walking is required throughout Sutro Heights Park. A total of approximately 0.7 mile of trails and 6.2 acres of other grassy or paved areas are available for on-leash dog walking. This site is mainly used for formal events such as weddings and other special events due to the existing formal garden landscaping. Dog walking is considered a low visitor use at this site; however, noncompliance with the leash law does occur. A total of 71 incidents were documented in 2008 through 2011, with 46 being leash law violations (table 24a) and a total of 33 incidents were documented between 2012 and 2016, with 20 being leash law violations (table 24b).

There would be no impact on visitors who would prefer to walk dogs at the park under the no-action alternative. Visitors would continue to have access to on-leash dog walking in many areas of the site, and some visitors would continue to ignore the leash law and walk their dogs off leash. Visitation by this user group would remain the same at this site.

Impacts on visitors who would prefer not to have dog walking at the park would be long term, minor, and adverse. Visitors would continue to encounter both on-leash dogs and dogs under voice control at this site, even though leashes would be required at the site. Dog waste could be an aesthetic issue at this site, especially during the formal events held at the park. Visitation by this user group could decrease.

Under alternative A, no permit system exists for dog walking. At Sutro Heights Park, commercial dog walking is uncommon. The impacts from commercial dog walkers to visitor experience are similar to the impacts discussed above for both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at this park site.

Cumulative Impacts. Projects and actions in and near Sutro Heights Park were considered for the cumulative impacts analysis (appendix K). One known project in the area is the restoration and dune stabilization efforts at Sutro Dunes, which involved the planting of native vegetation (San Francisco Examiner 2010, 1). The restoration of habitat benefits the aesthetics of Sutro Dunes results in beneficial impacts on visitor use and experience for all visitors to Sutro Heights Park; however, since this project was focused on habitat restoration and is not directly related to dog management or dog-related visitor use, the projects would not substantially affect the cumulative analysis for alternative A.

The proposed GGNRA interim compendium amendment would require commercial dog walkers in San Francisco and Marin counties to obtain a permit to walk more than three dogs at GGNRA sites, with a limit of six dogs. By reducing congestion and overcrowding, the amendment would have beneficial impacts on visitors who prefer dogs. It would also have beneficial impacts on visitors who prefer not to have dogs at the park. Although this proposed amendment may have adverse impacts on commercial dog walkers who want to walk more than three dogs at GGNRA, commercial dog walking use is considered low at Sutro Heights.

Although the proposed interim compendium amendment is directly related to dog management and would have overall beneficial cumulative impacts, these impacts are not expected to be great enough to alter the intensity of the expected impacts from the implementation of the preferred alternative for either user group. The cumulative effects of these projects would not be measurable or perceptible on alternative A and no change in impact level or intensity is expected on either user group: negligible for those who prefer to walk dogs and long-term minor and adverse for those visitors who prefer not to have dogs at the site.

SUTRO HEIGHTS PARK ALTERNATIVE A CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
No impact for visitors who would prefer to walk dogs at the park	On-leash dog walking would still be allowed on site	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park	Visitors would still encounter dogs throughout the site	Long-term minor adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative B: NPS Leash Regulation. On-leash dog walking would continue to be allowed only on the paths, and the parapet at Sutro Heights Park. Dogs would no longer be allowed on the lawns at the site. A total of approximately 0.7 mile of trails and 0.3 acre of other grassy or paved areas would be available for on-leash dog walking.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor, and adverse. The amount of area available to dogs would be reduced to the parapet, and the paths at the site, a total reduction of approximately 5.9 acres of paved or grassy areas. During the public comment period for the draft plan/EIS, one commenter stated, “It is ridiculous to make this a leash only area with the amount of dogs in this park. These dogs are generally well behaved and mostly belong to neighborhood residents who have been using this park since these dogs were puppies. Everyone knows each other. The interaction between most dog owners and the other users in the park is very favorable” (NPS 2011a, Correspondence 3225). Impacts would be minor since dogs would still be welcome at this park site and visitation by this user group is typically low. Limiting dog walking areas would reduce visitors’ enjoyment of this site. Visitation by this user group would not be expected to change.

Impacts on visitors who would prefer not to have dog walking at this park site would be beneficial. This alternative would provide many areas throughout the park site for visitors to experience the park without the presence of dogs. During the public comment period for the draft plan/EIS, one commenter stated, “I would like to see more restrictions on dogs in grassy areas. Currently, my visits to Sutro Heights Park and the Airfield at Crissy Field are often ruined by off-leash dogs” (NPS 2011a, Correspondence 799). The amount of dog waste in the park would be expected to be reduced, especially in areas where dogs would no longer be allowed. Visitors would no longer encounter the occasional off-leash dog. Visitation by this user group may increase at this site under alternative B.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs on leash per person with no permit required. Since commercial dog walking at Sutro Heights Park is not common, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Sutro Heights Park were considered for the cumulative impacts analysis (appendix K). One known project in the area is the restoration and dune

stabilization efforts at Sutro Dunes, which involved the planting of native vegetation (San Francisco Examiner 2010, 1). The restoration of habitat benefits the aesthetics of Sutro Dunes results in beneficial impacts on visitor use and experience for all visitors to Sutro Heights Park; however, since this project was focused on habitat restoration and is not directly related to dog management or dog-related visitor use, the projects would not substantially affect the cumulative analysis for alternative B.

When the impacts associated with these projects are added to the long-term minor adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative B of the dog management plan, cumulative impacts would be long-term, minor, and adverse for visitors who would prefer to walk dogs at Sutro Heights Park and beneficial for visitors who would prefer not to have dog walking at the site.

SUTRO HEIGHTS PARK ALTERNATIVE B CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Areas for dog walking would be limited to designated areas	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	A no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative C: Emphasis on Multiple Use – Balanced by County. Restrictions on dog walking under alternative C would be the same as alternative B, and impacts on visitor use and experience would be the same: long term, minor, and adverse for visitors who would prefer to walk dogs at the park and beneficial for visitors who would prefer not to have dog walking at this park site.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Sutro Heights Park is not one of the park sites where permits to walk more than three dogs would be issued. Since commercial dog walking is not common at this site, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Under alternative C, the cumulative impacts on visitor use and experience at this park site would be the same those under alternative B: long-term, minor, adverse impacts to visitors who prefer dogs and beneficial impacts to visitors who do not prefer dogs.

SUTRO HEIGHTS PARK ALTERNATIVE C CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	On-leash dog walking would be limited	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	A no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, dogs would no longer be allowed at Sutro Heights Park.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor, and adverse. Although this would be the most restrictive of the all alternatives, impacts would still be minor since dog walking is typically low at this site. In addition, visitors who have used the area for dog walking could use other immediately adjacent GGNRA sites, such as Lands End and Ocean Beach. Visitors would no longer receive personal benefits from walking dogs at the site. Visitation by this user group would no longer occur.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Visitors would no longer encounter dogs at this park site. The entire site would be available for a no-dog experience. Visitors who would prefer not to have dog walking at the park may feel more comfortable recreating at Sutro Heights Park since dogs would not be present. Dog waste would no longer be an aesthetic issue at this site. Visitation by this user group at Sutro Heights Park would have the potential to increase.

Since dogs would not be allowed at this site the impacts to commercial dog walkers are similar to the impacts discussed above for visitors who would prefer to walk dogs at the park.

Cumulative Impacts. Projects and actions in and near Sutro Heights Park considered for the cumulative impacts analysis would be the same as those described under alternative B. When the impacts associated with these projects are added to the long-term minor adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative D of the dog management plan, cumulative impacts would be long-term, minor, and adverse for visitors who would prefer to walk dogs at Sutro Heights Park and beneficial for visitors who would prefer not to have dog walking at the site.

SUTRO HEIGHTS PARK ALTERNATIVE D CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	No dog walking would be allowed on site	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	A no-dog experience would be available throughout the entire site	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative E: Most Dog Walking Access / Most Management Intensive. On-leash dog walking would continue to be allowed on the paths, parapet, lawns, and parking area at Sutro Heights Park, allowing the most dog walking access among the action alternatives considered for the site. A total of approximately 0.7 miles of trails and 6.2 acres of other grassy or paved areas would be available for on-leash dog walking.

Impacts on visitors who would prefer to walk dogs at the park would be negligible. On-leash dog walking would be allowed on the paths, parapet, lawns, and parking area. Dog walking under voice and site control would not be permitted. Visitation by this user group would likely remain the same at this site.

Impacts on visitors who would prefer not to have dog walking at this park site would be long term, minor, and adverse. Visitors would continue to encounter on-leash dog walking throughout most areas of the site. Dog waste could be an aesthetic issue at this site, especially during the formal events held at the park. In addition, visitors attending formal events, such as weddings, at this park site may prefer not to encounter dogs while they are enjoying this activity. Visitation by this user group would likely remain the same at this site.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to walk one to three dogs with no permit required. However, Sutro Heights Park is not one of the park sites where permits to walk more than three dogs would be issued. Since commercial dog walking is not common at this site, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Sutro Heights Park considered for the cumulative impacts analysis would be the same as those described under alternative B. When the impacts associated with these projects are added to the negligible impacts (for those who prefer dogs) and long-term minor adverse impacts (for those who do not prefer dogs) associated with alternative E of the dog management plan, cumulative impacts would be negligible for visitors who would prefer to walk dogs at Sutro Heights Park and long-term, minor, and adverse for visitors who would prefer not to have dog walking at the site.

SUTRO HEIGHTS PARK ALTERNATIVE E CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Negligible impacts for visitors who would prefer to walk dogs at the park	Dog walking would still be allowed on leash throughout most of the site	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Visitors would still encounter dogs throughout much of the site	Long-term minor adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative F: Preferred Alternative. The preferred alternative includes on-leash dog walking on the paths, parapet, lawns, and parking area at Sutro Heights Park, allowing the most dog walking access among the action alternatives. A total of approximately 0.8 miles of trails and 7.1 acres of other grassy or paved areas would be available for on-leash dog walking.

Impacts on visitors who would prefer to walk dogs at the park would be negligible. On-leash dog walking would be allowed within the paths, parapet, lawns, and parking area. Dog walking under voice and sight control would not be permitted. Visitation by this user group would likely remain the same at this site.

Impacts on visitors who would prefer not to have dog walking at this park site would be long term, minor, and adverse. Visitors would continue to encounter on-leash dog walking throughout most areas of the site. Dog waste could be an aesthetic issue at this site, especially during the formal events held at the park. In addition, visitors attending formal events, such as weddings, at this park site may prefer not to encounter dogs while they are enjoying this activity. Visitation by this user group would likely remain the same at this site.

All dog walkers, including commercial dog walkers, would be allowed to walk one to walk one to three dogs with no permit required. However, Sutro Heights Park is not one of the park sites where permits to walk more than three dogs would be issued. Since commercial dog walking is not common at this site, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Sutro Heights Park were considered for the cumulative impacts analysis (appendix K). The only known project in the area is the restoration and dune stabilization efforts at Sutro Dunes, which involved the planting of native vegetation (San Francisco Examiner 2010, 1), improving the aesthetics of the visitor experience at this location.

The restoration of habitat benefits the aesthetics of Sutro Dunes and results in beneficial impacts on visitor use and experience for all visitors to Sutro Heights Park; however, since this project was focused on habitat restoration and is not directly related to dog management or dog-related visitor use, the projects would not substantially affect the cumulative analysis for the preferred alternative. Although the proposed interim compendium amendment is directly related to dog management and would have overall beneficial cumulative impacts, these impacts are not expected to be great enough to alter the intensity of the expected impacts from the implementation of the preferred alternative for either user group since commercial dog walking is considered a low use. Therefore, cumulative effects would not be measurable or perceptible on the preferred alternative and no change in impact level or intensity is expected on either user group: negligible for those visitors who prefer to walk dogs and long-term, minor and adverse for those visitors who prefer not to have dogs at the site.

SUTRO HEIGHTS PARK PREFERRED ALTERNATIVE F CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Negligible impacts for visitors who would prefer to walk dogs at the park	Dog walking would still be allowed on leash throughout most of the site	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Visitors would still encounter dogs throughout the site	Long-term minor adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Ocean Beach

Alternative A: No Action. Dogs are currently allowed under voice control along the approximately 3.4 miles of Ocean Beach, except that on-leash dog walking is required from July 1 through May 15 in the SPPA, from Stairwell 21 to Sloat Boulevard. During the seasonal restriction approximately 1.2 miles of beach are available for off-leash dog walking and approximately 2.2 miles of beach are available for on-leash dog walking. A total of approximately 2.8 miles of trails are also available for off-leash dog walking. Visitor use at this site is considered moderate to high by multiple user groups including beachgoers, walkers, runners, birdwatchers, picnickers, equestrians, and surfers (table 10). Dog walking is considered a low to high visitor use at Ocean Beach (table 10). During the 2008 visitor use survey, 9.4 percent of visitors at Ocean Beach were dog walkers (table 11) (IEC 2011, 10). The Ocean Beach SPPA is considered a moderate visitor use by beachgoers, runners, and dog walkers (table 10). Compliance with the current dog policies at Ocean Beach is considered poor; 969 dog-related incidents were reported from 2008 through 2011. The majority of incidents were for violating the Ocean Beach SPPA (table 25a). In addition 21 dog bites/attacks were documented during this period. Between 2012 and 2016, a total of 156 dog-related incidents were recorded, with 73 incidents being for leash law violations (table 25b).

There would be no impact on visitors who would prefer to walk dogs at the park under the no-action alternative. Visitors would continue dog walking under voice control throughout the entire Ocean Beach area except for the seasonal leash restriction in the SPPA. Dogs would have ample room to run, exercise, and play with other dogs and visitors. Compliance with the on-leash regulation in the SPPA would probably remain poor, as visitors would continue to allow their dogs off leash in this area during the seasonal leash restriction. Visitation by dog walkers would remain moderate to high at this site.

Impacts on visitors who would prefer not to have dog walking at the park would be long term, moderate, and adverse. Beachgoers, runners, surfers, and picnickers would continue to share the beach with off-leash dogs. Visitor incidents (dog bites/attacks) related to dogs in this area would continue; some dogs would continue to jump on, knock over, or intimidate visitors, especially small children. During the

public comment period for the draft plan/EIS, one commenter stated, “I have 2 small kids. I would love for them to play on Ocean Beach freely - without worrying about digging up dog poop while playing in the sand. I would like them to chase the waves without worrying they will be knocked over by big dogs running around” (NPS 2011a, Correspondence 1773). Beachgoers, runners, surfers, and picnickers would not have an area to experience the site without the presence of off-leash dogs. Visitation by this user group may decrease at this site due to the presence of dogs.

Under alternative A, no permit system exists for dog walking. At Ocean Beach, commercial dog walking is uncommon. The impacts from commercial dog walkers to visitor experience are similar to the impacts discussed above for both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at this park site.

Cumulative Impacts. Projects and actions in and near Ocean Beach were considered for the cumulative impacts analysis (appendix K). In addition to the *Cosco Busan Recreational Use Restoration Projects Plan* described under alternative A for Stinson Beach, the following is a discussion of projects that have had, are currently having, or will have effects on visitor use and experience at or in the vicinity of Ocean Beach.

The Ocean Beach Erosion Control Project is developing solutions to beach and coastal bluff erosion problems at Ocean Beach along Highway 1, consistent with the enhancement of natural processes (City and County of San Francisco 2008, 3, 7). This would provide a benefit to aesthetics, which would improve visitor experience. Additionally, a joint project with the park and the City of San Francisco may occur in the future that involves the improvement of the Esplanade at the north end of Ocean Beach. In general, these projects would enhance visitor experience and it is possible that a future project to improve the Esplanade at Ocean Beach would increase visitation; however, there is no certainty that this project would occur. Since these projects are site improvement projects that would not directly affect visitor use at Ocean Beach, they would not substantially affect alternatives considered for Ocean Beach. Implementation of the proposed SNRAMP (SFPD 2011) may further restrict dog access and off-leash areas in San Francisco, including Lake Merced (near Fort Funston and Ocean Beach) and other natural areas (Bernal Hill and McLaren Park, closest to Fort Funston and Ocean Beach). Lake Merced, Bernal Hill, and McLaren Park were identified in the visitor satisfaction survey as alternative sites for dog walking (NPS 2012a, 21-66). There is potential for increased use of dog walkers at Ocean Beach resulting from the reduction in DPAs.

The proposed GGNRA interim compendium amendment would require commercial dog walkers in San Francisco and Marin counties to obtain a permit to walk more than three dogs at GGNRA sites, with a limit of six dogs. By reducing congestion and overcrowding, the amendment would have beneficial impacts on visitors who prefer dogs. It would also have beneficial impacts on visitors who prefer not to have dogs at the park. Although this proposed amendment may have adverse impacts on commercial dog walkers who want to walk more than three dogs at GGNRA, commercial dog walking use is considered low at Ocean Beach. The proposed interim compendium amendment is directly related to dog management and would have overall beneficial cumulative impacts, but these impacts are not expected to be great enough to alter the intensity of the expected impacts from the implementation of the preferred alternative for either user group.

The cumulative analysis for this park site would be considered negligible since any effect would not be measurable or perceptible. Impacts from the implementation of alternative A for either user group would not change substantially: negligible to no impact for those visitors who would prefer to walk dogs at the site and long-term, moderate and adverse for those visitors who prefer not to have dog walking at Ocean Beach.

OCEAN BEACH ALTERNATIVE A CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
No impact for visitors who would prefer to walk dogs at the park	Off-leash dog walking would continue along the beach	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term moderate adverse impacts for visitors who would prefer not to have dog walking at the park	Visitors would still encounter dog walking throughout the site; site is moderate to high dog use area	Long-term moderate adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative B: NPS Leash Regulation. On-leash dog walking would be allowed on the beach north of Stairwell 21 and south of Sloat Boulevard. Dogs would be prohibited in the SPPA, but on-leash dog walking would be allowed on the Ocean Beach Trail east of the dunes and adjacent to the Great Highway. A total of approximately 1.2 miles of beach and 2.8 miles of trails would be available for on-leash dog walking.

Impacts on visitors who would prefer to walk dogs in the park would be long term, moderate to major, and adverse. Since this area is heavily used by visitors walking their dogs under voice control, moderate to major impacts would be expected. Because dog walking would be required to be on leash and the area available for dog walking would be reduced by approximately 2.2 miles of beach, adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. Limiting dog walking areas would reduce visitors' enjoyment of this site. In addition, it would be difficult for some visitors, particularly those that are disabled or elderly with mobility issues, to adequately control their dogs on-leash. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. Some visitors in this user group may find a different park to exercise their dogs off leash. As a result, visitation by local residents may decrease slightly in this area.

Impacts on visitors who would prefer not to have dog walking at this park site would be beneficial. During the public comment period for the draft plan/EIS, one commenter described off-leash dogs as the following, "I have run and walked on Ocean Beach for over 40 years. In recent years there have been an increased number of unleashed dogs on the beach. I have been bitten by an unleashed dog while running on Ocean Beach. When running with friends who have a dog on leash, their dogs have been attacked by unleashed dogs. Each of these behaviors is natural of dogs. By their very nature and breeding, they attack running prey, in this case me. A leashed dog appears to be in a weakened position and is fair game for an unrestrained dog. Often the owners of unleashed dogs are hostile when I ask them to control their dog" (NPS 2011a, Correspondence 2087). Visitors would no longer encounter off-leash dogs throughout the site. Under alternative B, visitors would have the opportunity to use approximately 2.2 miles of Ocean Beach without the presence of dogs. Leash law violations would be expected to decrease since dogs would no longer be allowed in the SPPA. Visitor incidents (bites/attacks) related to dogs would also be expected to decrease since visitors who would prefer not to have dog walking at the park would feel more comfortable recreating at this site, visitation by this user group would increase.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to walk one to three dogs on leash per person with no permit required. Since commercial dog walking at Ocean Beach is not common, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Ocean Beach were considered for the cumulative impacts analysis (appendix K). In addition to the *Cosco Busan Recreational Use Restoration Projects Plan* described under alternative A for Stinson Beach, the following is a discussion of projects that have had, are currently having, or will have effects on visitor use and experience at or in the vicinity of Ocean Beach.

The Ocean Beach Erosion Control Project is developing solutions to beach and coastal bluff erosion problems at Ocean Beach along Highway 1, consistent with the enhancement of natural processes (City and County of San Francisco 2008, 3, 7). This would provide a benefit to aesthetics, which would improve visitor experience. Additionally, a joint project with the park and the City of San Francisco may occur in the future that involves the improvement of the Esplanade at the north end of Ocean Beach. In general, these projects would enhance visitor experience and it is possible that a future project to improve the Esplanade at Ocean Beach would increase visitation; however, there is no certainty that this project would occur. Since these projects are site improvement projects that would not directly affect visitor use at Ocean Beach, they would not substantially affect alternatives considered for Ocean Beach. Implementation of the proposed SNRAMP (SFPD 2011) may further restrict dog access and off-leash areas in San Francisco, including Lake Merced (near Fort Funston and Ocean Beach) and other natural areas (Bernal Hill and McLaren Park, closest to Fort Funston and Ocean Beach). Lake Merced, Bernal Hill, and McLaren Park were identified in the visitor satisfaction survey as alternative sites for dog walking (NPS 2012a, 21-66). There is potential for increased use of dog walkers at Ocean Beach resulting from the reduction in DPAs.

When the impacts associated with these projects are added to the long-term moderate to major adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative B of the dog management plan, cumulative impacts would be long-term, moderate to major, and adverse for visitors who would prefer to walk dogs at Ocean Beach and beneficial for visitors who would prefer not to have dog walking at the site.

OCEAN BEACH ALTERNATIVE B CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate to major adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice control would no longer be allowed on site; on-leash dog walking would be limited to a portion of the beach	Long-term moderate to major adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking under voice control would no longer be allowed on site; a no-dog experience would be available on a large part of the beach	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative C: Emphasis on Multiple Use – Balanced by County. Under alternative C, dog walking under voice and sight control would be allowed in a VSCA approximately 0.7 mile long from Stairwell 21 to the northern end of the beach. Dogs would be prohibited south of Stairwell 21 to the Fort Funston boundary, but would be allowed on leash on the approximately 2.8 mile Ocean Beach Trail east of the dunes adjacent to the Great Highway.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor to moderate, and adverse. The amount of area available to visitors with dogs would be reduced by approximately 2.7 miles of beach; however, there would still be an area allowing dog walking under voice control at this site. Impacts would be minor to moderate since the opportunity for off-leash dog walking would still exist on the beach, although the area would be smaller than current off-leash area. Visitors would have the

option of taking dogs to the VSCA or on-leash dog walking areas. Therefore, dogs that do not receive enough exercise or become aggressive when restrained by a leash would still have the opportunity to walk under voice and sight control within the VSCA. The number of visitors in the VSCA on many days would be expected to be high. Dogs would still have the opportunity to run, swim, and socialize with other pets. During the public comment period for the draft plan/EIS commenters noted the inconvenient location of the VSCA for local dog walkers. One commenter stated, “The amount of dog walkers walking to the beach from the Sunset and Parkside neighborhoods is very high. On weekday mornings 25-50% of the beach traffic comes from these folks... all of these people will now get into their cars and drive to the North end of the beach” (NPS 2011a, Correspondence 822). For those in the neighborhoods south of the northern parking lots, the trail east of the dunes would provide a dog walking connection to the VSCA. An increase in traffic in the area could occur if some visitors do not wish to use the neighborhood connection. However, limiting dog walking areas would reduce visitors’ enjoyment of this site. Visitation by this user group would have the potential to decrease slightly.

Impacts on visitors who would prefer not to have dog walking at this park site would be beneficial. Under alternative C, visitors would have the opportunity to use approximately 2.7 miles of Ocean Beach without the presence of dogs. Visitor incidents (bites/attacks) related to dogs would be expected to decrease since visitors would now have use of a portion of the beach that would not allow dogs. Visitation by this user group would increase in this area, as many visitors who have avoided this area because of dogs would begin using this park site.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be granted at Ocean Beach, so individual and commercial dog walkers would only be allowed to walk one to walk one to three dogs on leash per person, or under voice and sight control in the VSCA. Since commercial dog walking is not common at this site, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Ocean Beach considered for the cumulative impacts analysis would be the same as those described under alternative B. When the impacts associated with these projects are added to the long-term minor to moderate adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative C of the dog management plan, cumulative impacts would be long-term, minor to moderate, and adverse for visitors who would prefer to walk dogs at Ocean Beach and beneficial for visitors who would prefer not to have dog walking at the site.

OCEAN BEACH ALTERNATIVE C CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice and sight control would be limited to a portion of the beach	Long-term minor to moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking under voice and sight control would be limited; a no-dog experience would be available on a large part of the beach	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative D: Most Protective of Resource Protection and Visitor Safety. On-leash dog walking would be allowed on the beach north of Stairwell 21 for a total of an approximately 0.7 mile length of beach. Dogs would be prohibited in the SPPA, but on-leash dog walking would be allowed on the approximately 2.8 mile Ocean Beach Trail east of the dunes and adjacent to the Great Highway.

Impacts on visitors who would prefer to walk dogs in the park would be long term, moderate to major, and adverse. Since this area is heavily used by visitors walking their dogs under voice control, moderate to major impacts would be expected. Because dog walking would be required to be on leash and the beach area available for dog walking would be reduced by approximately 2.7 miles, adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. During the public comment period for the draft plan/EIS, one commenter stated the importance of Ocean Beach to dog walkers, “I walk my dog at Ocean Beach in the area approved for off-leash dogs. Out of all the miles of beach, this is a relatively tiny area and it is much appreciated. I go every week at least once and sometimes 3 times a week. I have never seen any misbehavior of any dogs over the past 4 years. Furthermore, it helps socialize dogs so that they are not a problem in contact with other dogs and people. We now have more owners of dogs than parents of children” (NPS 2011a, Correspondence 1062). Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. Limiting dog walking areas would reduce visitors’ enjoyment of this site. In addition, it would be difficult for some visitors, particularly those that are disabled or elderly with mobility issues, to adequately control their dogs on-leash, although there are other accessible sites for walking dogs off leash within GGNRA. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. Some visitors in this user group may find a different park to exercise their dogs off leash. As a result, visitation by local residents with dogs may decrease slightly in this area.

Impacts on visitors who would prefer not to have dog walking at this park site would be beneficial. Visitors would no longer encounter off-leash dogs throughout the site. During the public comment period for the draft plan/EIS commenters described experiences with off-leash dogs at Ocean Beach. One commenter stated, “Countless times, since my children were babies, we have had excursions to Ocean Beach ruined by dogs on and off leashes doing the following, among many other offenses: 1. Approaching us and angrily attacking us, running all over our beach blanket throwing sand in our faces and on our picnic food. Needless to say, our picnics were ruined. 2. Dogs approaching me with completely unknown intentions. I do not know if they are playful or will bite me. Their owner is obviously walking hundreds of yards away, paying absolutely no attention to where their dog is located or what it is doing. 3. Watching unleashed dogs chasing the protected snowy plover birds into the water, with, as usual, the owners not caring or calling or controlling at all. This is upsetting to me. 4. Countless times stepping on dog feces on the beach. 5. Constant loud and disturbing barking of dogs, ruining what I thought what a sensitive environmental area” (NPS 2011a, Correspondence 1467). Under alternative D visitors would have the opportunity to use approximately 2.7 miles of Ocean Beach without the presence of dogs. Leash law violations would be expected to decrease since dogs would no longer be allowed in the SPPA. Visitor incidents (bites/attacks) related to dogs would also be expected to decrease. Since visitors who would prefer not to have dog walking at the park would feel more comfortable recreating at this site, visitation by this user group would increase.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D. Private dog walkers would be allowed up to three dogs. Since commercial dog walking is not common at Ocean Beach, it is likely that prohibiting commercial dog walking from this site would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Under alternative D, the cumulative impacts on visitor use and experience at this park site would be the same those under alternative B: long-term, moderate to major, and adverse for visitors who prefer dogs, and beneficial for visitors who do not prefer dogs.

OCEAN BEACH ALTERNATIVE D CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate to major adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice control would no longer be allowed on site; on-leash dog walking would be limited to a portion of the beach	Long-term moderate to major adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking under voice control would no longer be allowed on site; a no-dog experience would be available on a large part of the beach	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative E: Most Dog Walking Access / Most Management Intensive. Dog walking under voice and sight control would be allowed in an approximately 0.7 mile-long beach VSCA extending from Stairwell 21 to the northern end of the beach. On-leash dog walking would be allowed on the approximately 0.5 of a mile section of beach south of Sloat Boulevard to the Fort Funston boundary and along the approximately 2.8 miles of the Ocean Beach Trail east of the dunes adjacent to the Great Highway (approximately 2.4 miles).

Long-term minor to moderate adverse impacts on visitors who would prefer to walk dogs at the park would be anticipated. The area available for walking dogs under voice and sight control would be reduced by approximately 2.7 miles of beach. During the public comment period for the draft plan/EIS, some visitors stated that the drive to the VSCA would be an inconvenience. One commenter stated, “I have been a long time friend of residents and now have my own dog that I would love to walk on Ocean Beach. I cannot fathom the thought of having to drive myself and my dog to a part of the beach when I have always been able to enjoy this aspect from their front yard. This is a really important thing to me and my family and I will be so disappointed if this happens” (NPS 2011a, Correspondence 991). Visitors would have the option of taking dogs to the VSCA or on-leash dog walking areas, and the VSCA could be accessed either from the northern parking lot or from the on-leash trail running along the eastern side of the dunes. Therefore, dogs that do not receive enough exercise or become aggressive when restrained by a leash would still have the opportunity to walk under voice and sight control within the VSCA. This park site would continue to be a high use area for dog walking, with the majority of dog walking use in the VSCA, which may create crowded conditions. No change in visitation by this user group would be expected at this park site.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Dogs would still be present throughout the site, but on-leash dog walking would be required on the majority of the length of the beach. Visitors who would prefer not to be around off-leash dogs could easily avoid the VSCA. Visitors and other recreationists (e.g., horseback riders, sunbathers, and picnickers) may feel more comfortable on the beach if the dogs present are walked on leash. Leash law violations and visitor incidents (bites/attacks) related to dogs would be expected to decrease. Visitation by this user group may increase.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be granted at Ocean Beach, so individual and commercial dog walkers would only be

allowed to walk one to three dogs on leash per person, or under voice and sight control in the VSCA. Since commercial dog walking is not common at Ocean Beach, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Under alternative E, the cumulative impacts on visitor use and experience at this park site would be the same those under alternative C: long-term, minor to moderate, adverse for visitors who prefer dogs, and beneficial for visitors who do not prefer dogs.

OCEAN BEACH ALTERNATIVE E CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice and sight control would be limited to a portion of the beach	Long-term minor to moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the beach
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking under voice and sight control would be limited in designated areas	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative F: Preferred Alternative. Dog walking under voice and sight control for dog walkers with up to three dogs would be allowed in an approximately 0.7 of a mile-long beach VSCA from Stairwell 21 to the northern end of the beach, which includes the adjacent waters immediately offshore. Stairwells 1 to 21 leading to the VSCA would require dogs to be leashed until well on to the beach itself. On-leash dog walking would also be allowed on the Ocean Beach Trail along the Great Highway from the Cliff House to Lincoln Boulevard, to Sloat Boulevard on the single track path through the ice plants on the western curb along the Great Highway, and on the future planned trail south of Sloat Boulevard. Dogs would be prohibited on the beach within the SPPA, between Stairwell 21 and Sloat Boulevard.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor to moderate, and adverse. The amount of area available to visitors with dogs would be reduced by approximately 4.6 miles of beach; however, one area would still allow dog walking under voice control. Impacts would be minor to moderate since the opportunity for off-leash dog walking would still exist on the beach, although the area would be reduced. Visitors would have the option of taking dogs to the VSCA or the on-leash trail. Therefore, dogs that do not receive enough exercise or become aggressive when restrained by a leash would still have the opportunity to walk under voice and sight control within the VSCA. The number of visitors in the VSCA each day would be expected to be moderate to high. Dogs would still have the opportunity to run, swim, and socialize with other pets. Limiting dog walking areas would reduce visitors' enjoyment of this site. Visitation by this user group would have the potential to decrease slightly.

Impacts on visitors who would prefer not to have dog walking at this park site would be beneficial. Under the preferred alternative, visitors would have the opportunity to use approximately 4.6 miles of Ocean Beach without the presence of dogs. Visitor incidents (bites/attacks) related to dogs would be expected to decrease since visitors would now have use of a portion of the beach that would not allow dogs. Visitation by this user group would increase in this area, as many visitors who have avoided this area because of dogs would begin using this park site.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be granted at Ocean Beach,

so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person, or under voice and sight control in the VSCA. Since commercial dog walking is not common at this site, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Ocean Beach were considered for the cumulative impacts analysis (appendix K). In addition to the *Cosco Busan Recreational Use Restoration Projects Plan* described under alternative A for Stinson Beach, the following is a discussion of projects that have had, are currently having, or will have effects on visitor use and experience at or in the vicinity of Ocean Beach.

The Ocean Beach Erosion Control Project is developing solutions to beach and coastal bluff erosion problems at Ocean Beach along Highway 1, consistent with the enhancement of natural processes (City and County of San Francisco 2008, 3, 7). This would provide a benefit to aesthetics, which would improve visitor experience. Additionally, a joint project with the park and the City of San Francisco may occur in the future that involves the improvement of the Esplanade at the north end of Ocean Beach. In general, these projects would enhance visitor experience and it is possible that a future project to improve the Esplanade at Ocean Beach would increase visitation; however, there is no certainty that this project would occur. Since these projects are site improvement projects that would not directly affect visitor use at Ocean Beach they would not substantially provide an effect to any alternatives considered for Ocean Beach. Implementation of the proposed SNRAMP (SFPD 2011) may further restrict dog access and off-leash areas in San Francisco, including Lake Merced (very close to Fort Funston and Ocean Beach, which would be closed to dogs) and other natural areas (Bernal Hill and McLaren Park, close to Fort Funston and Ocean Beach). There is potential for increased use of dog walkers at Ocean Beach resulting from the reduction in DPAs, and if this occurs, the VSCA has the potential to become overcrowded. The long-term minor to moderate adverse impacts on visitor use and experience for visitors who would prefer to walk dogs at the park under the preferred alternative combined with the adverse impacts of the SNRAMP would result in long-term minor to moderate adverse cumulative impacts on this user group. The beneficial impacts on visitors who would prefer not to have dog walking at this park site under alternative F combined with the adverse impacts of the SNRAMP would result in beneficial cumulative impacts on the visitor experience of this user group. Although dog walking may increase at Ocean Beach, the increase in visitation would likely be within the VSCA.

Overall, under the preferred alternative, cumulative impacts would be long-term, minor to moderate, and adverse for visitors who prefer to walk dogs at the park. Cumulative impacts would be beneficial under this alternative for visitors who do not prefer dogs at the park.

OCEAN BEACH PREFERRED ALTERNATIVE F CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice and sight control would be limited to a portion of the beach	Long-term minor to moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking under voice and sight control would be limited to designated areas; a no-dog experience would be available on a large part of the beach	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Fort Funston

Alternative A: No Action. Dogs are currently allowed under voice control at Fort Funston except in the 12-acre habitat protection area that restricts both visitors and dogs for the protection of native plant communities, the bluff area that has a voluntary seasonal closure (April 1 – August 15) for the protection of the bank swallow colony, and a section of trail closed for the prevention of erosion. A total of approximately 1.1 miles of beach and 98.7 acres are heavily used for off-leash dog walking. During the 2011 visitor use survey, 62.1 percent of visitors were dog walkers (table 11) (IEC 2011, 10). Walkers, hang gliders, fishermen, equestrians, birdwatchers, and environmental center participants also use this site. In addition to individual dog walkers, increasing numbers of commercial dog walkers use this area daily, walking as many as 10 to 12 dogs off leash at a time. Fort Funston has 43 reported and documented dog bites/attacks of humans and horses (while being ridden); a higher number than any other site from 2008 through 2011 (table 26a). Several incidents involving dog bites to visitors and other visitor complaints included vehement confrontations with owners of the offending dogs. Confrontations included dog owners/walkers involved in the incidents and non-dog walking visitors (including some who had been bitten). Dog-related incidents between 2012 and 2016 included 157 incidents, with the majority for animal complaints (table 26b). Some dog walkers stated that Fort Funston is only for dog walkers and advised the non-dog walkers to go to another park site for a no-dog experience. The high volume of dogs at this park site has also led to problems with aesthetic issues, including a strong odor of dog urine; the presence of dog waste throughout the site, especially near the parking lots, in spite of regular cleanup efforts by the Fort Funston dog walking group; and areas completely denuded of vegetation. Hang gliding pilots have reported dog bites during takeoff and pet waste in the landing zones and that dog walkers are uncooperative when asked to remove the waste left by their dogs.

There would be no impact on visitors who would prefer to walk dogs at this park site under the no-action alternative. Individual dog owners and commercial dog walkers would continue dog walking under voice control throughout the entire Fort Funston site except for the restricted, fenced habitat protection area and the area designated for seasonal closure to protect the nesting bank swallows. Dogs would receive an ample amount of exercise and socialization since there are many dogs at the site at one time. Dog bites/attacks would be expected to continue. Visitation by dog walkers would remain high at this site.

Impacts on visitors who would prefer not to have dog walking at this site would remain long term, moderate to major, and adverse. Visitors would continue to encounter a high number of off-leash dogs throughout the site. Many visitors, especially those with small children, would continue to avoid the site due to feeling overwhelmed or frightened by dogs. During the public comment period for the draft plan/EIS, a commenter stated, “Fort Funston is so totally overrun by dogs that it can no longer be enjoyed for hiking and bird watching” (NPS 2011a, Correspondence 1794). Conflicts between dog walkers and other recreational users, including horseback riders and hang gliders, would continue. Dog bites/attacks would be expected to continue. If the current conditions continue, visitation by this user group would continue to decrease at this site.

Under alternative A, no permit system exists for dog walking; however, commercial dog walkers frequently use Fort Funston for dog walking. There would be no impact from commercial dog walking on visitors who would prefer to walk dogs at the park under alternative A. Visitors would continue to walk more than three dogs per walker and some visitors would continue to enjoy the presence of multiple dogs. Impacts from commercial dog walking on visitors who would prefer not to have dog walking at the park would be long term, moderate, and adverse. Some visitors may feel uncomfortable recreating in this area if multiple dog walkers have more than three dogs under voice control at one time.

Cumulative Impacts. Projects and actions in and near Fort Funston were considered for the cumulative impacts analysis (appendix K). In addition to the SNRAMP described under alternative A for Ocean

Beach, the following is a discussion of projects that have had, are currently having, or will have effects on visitor use and experience at or in the vicinity Fort Funston. At Fort Funston, the park is planning the construction of a new FRA-accessible restroom and maintenance facilities (NPS 2010d, 1). Beneficial impacts would result on visitor use from the presence of maintenance facilities at Fort Funston. New restroom facilities at Fort Funston would enhance the visitor experience for all visitors at Fort Funston including both user groups that are the focus of this analysis; however, the benefit would not be substantial enough to alter the analysis of impacts for either group.

The proposed GGNRA interim compendium amendment would require commercial dog walkers in San Francisco and Marin counties to obtain a permit to walk more than three dogs at GGNRA sites, with a limit of six dogs. By reducing congestion and overcrowding, the amendment would have beneficial impacts on visitors who prefer dogs. It would also have beneficial impacts for visitors who prefer not to have dogs at the park. This proposed amendment may have adverse impacts on commercial dog walkers who want to walk more than three dogs at GGNRA, particularly since commercial dog walking use is considered high at Fort Funston. The cumulative impacts to visitors overall from the proposed interim compendium agreement are anticipated to be negligible.

The beneficial impacts on visitor use and experience for visitors who would prefer to walk dogs at the park under alternative A combined with the beneficial and adverse impacts of the cumulative projects described would result in negligible cumulative impacts on this user group. The long-term, moderate to major, adverse impacts on visitors who would prefer not to have dog walking at this park site under alternative A combined with the beneficial and adverse impacts of the cumulative projects would result in long-term moderate to major adverse cumulative impacts on the visitor experience of this user group.

FORT FUNSTON ALTERNATIVE A CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
No impact for visitors who would prefer to walk dogs at the park	Dog walking under voice control would continue throughout the site	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term moderate to major adverse impacts for visitors who would prefer not to have dog walking at the park	Visitors would encounter high numbers of dogs throughout the site, especially off leash; site is high dog use area	Long-term moderate to major adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative B: NPS Leash Regulation. Under alternative B, on-leash dog walking would be allowed on the beach and trails that are not closed to dogs. Closed areas include a 12-acre habitat protection area that restricts both visitors and dogs for the protection of native plant communities, geologic resources, and the bank swallow colony. There is a seasonal closure (April 1 – August 15) on the beach at the base of the bluffs to limit disturbance near the active colony, and a section of the Sunset Trail at the north end of the site is closed for the prevention of erosion. A total of approximately 2.1 miles of trail and 1.1 miles of beach would be available for on-leash dog walking. Dog walking under voice control would no longer be allowed under this alternative.

Impacts on visitors who would prefer to walk dogs at the park would be long term, moderate to major, and adverse. The majority of the visitors at this site, including commercial dog walkers, use the area for voice control dog walking, which would no longer be allowed under alternative B. During the public comment period for the draft plan/EIS commenters described the importance of having an area for off-leash dog walking. One commenter stated, “The ability to bring dogs and allow them to walk/run leashless on the stretch of beach from the Fort Funston parking area south is fantastic. In my opinion it is a cultural highlight of the Bay Area, in that dogs and their owners are given both freedom and

responsibility beyond the norm- and a very special environment is thus created” (NPS 2011a, Correspondence 540). Impacts would be expected to be moderate to major since Fort Funston is an extremely popular area for voice control dog walking, both locally and regionally. The total area available for dog walking would be reduced by 98.7 acres. Although off-leash dog walking was historically allowed throughout all of Fort Funston, much of the 98.7 acres of reduced upland areas include some fairly vegetated or fenced areas. Adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. In addition, it would be difficult for some visitors, particularly those that are disabled or elderly with mobility issues, to adequately control their dogs on-leash. Having dogs on-leash also limits the exercise dogs can obtain to the exercise abilities of their owners, which may not be sufficient. Visitation by this user group would be expected to decrease in this area.

Impacts on visitors who would prefer not to have dog walking at this park site would be negligible to long term, minor, and adverse. During the public comment period for the draft plan/EIS commenters described conditions at the park with off-leash dog walking. One commenter stated, “I frequently go to Ocean Beach and Fort Funston. Many times I have been harassed by unleashed large dogs that run up to me ferociously barking as if they are going to attack me, while the dog owner is unable to get the dog to back off. I have been scared so many times that my boyfriend thinks I should carry a weapon to the beach with me” (NPS 2011a, Correspondence 2308). In general, conditions at Fort Funston would be better for this user group than the no-action alternative because on-leash dog walking would be required; however, it is anticipated that a large number of dogs would still be present throughout the site. Visitors may feel more comfortable if dogs are walked on leash and under better control by the owner. Visitor incidents (bites/attacks) would be expected to decrease once the new regulation begins. This alternative would be compatible with environmental education programs that the San Francisco Unified School District conducts in the southern area of Fort Funston: teacher workshops, summer school, and children’s programs that include overnight outdoor stays. On-leash dog walking would reduce possible disturbance or safety concerns for school programs. All visitors and other recreationists (horseback riders and hang gliders), including other dog walkers and their pets, would be safer due to the reduced likelihood of dog bites, confrontations, and dogs running off cliffs. Visitation may increase at the site; however, some visitors would still avoid the site due to the number of dogs present at the site and because this alternative would not offer many opportunities for visitors to enjoy the park without the presence of dogs.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to walk one to three dogs on leash per person with no permit required. Since commercial dog walking at Fort Funston is common, it is likely that commercial dog walking would have long-term moderate adverse impacts on visitors who would prefer to walk dogs at the park. Visitation by commercial dog walkers would be expected to decrease. Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Visitors would no longer encounter multiple dogs off leash.

Cumulative Impacts. Projects and actions in and near Fort Funston were considered for the cumulative impacts analysis (appendix K). In addition to the SNRAMP described under alternative A for Ocean Beach, the following is a discussion of projects that have had, are currently having, or will have effects on visitor use and experience at or in the vicinity Fort Funston. At Fort Funston, the park is planning the construction of a new FRA-accessible restroom and maintenance facilities (NPS 2010d, 1). Beneficial impacts would result on visitor use from the presence of maintenance facilities at Fort Funston. New restroom facilities at Fort Funston would enhance the visitor experience for all visitors at Fort Funston including both user groups that are the focus of this analysis; however, the benefit would not be substantial enough to alter the analysis of impacts for either group.

When the impacts associated with these projects are added to the long-term moderate to major adverse impacts (for those who prefer dogs) and negligible to long-term minor adverse impacts (for those who do

not prefer dogs) associated with alternative B of the dog management plan, cumulative impacts would be long-term, moderate to major for visitors who would prefer to walk dogs at Fort Funston and negligible to long-term, minor, and adverse for visitors who would prefer not to have dog walking at the site.

FORT FUNSTON ALTERNATIVE B CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate to major adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice control would no longer be allowed; on-leash dog walking would be restricted to certain areas	Long-term moderate to major adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Negligible to long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Site experiences a high number of dog walkers; on-leash dog walking would be allowed on most of the trails and on the beach; off-leash dog walking would no longer be allowed	Negligible to long-term minor adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative C: Emphasis on Multiple Use – Balanced by County. Dog walking under voice and sight control would be allowed in two designated VSCAs, one on the beach south of the Funston Beach Trail North and a second between the Chip Trail, Sunset Trail, and main parking lot. A total of approximately 0.7 mile of beach and 8.30 acres of the upland area would be available for off-leash dog walking. On-leash dog walking would be allowed on all trails north of the parking lot (except the Sunset Trail from the parking lot to the junction with the Chip Trail, and Funston Horse Trail, which would be closed to dogs), and on the Funston Beach Trail South (sand ladder) and Sunset Trail south of the main parking lot. A total of approximately 1.8 miles of trails would be available for on-leash dog walking. Additional closed areas include a 12-acre habitat protection area that restricts both visitors and dogs and the section of beach near the northern bluffs that has a seasonal closure (April 1 – August 15) for the protection of the bank swallow colony, and the northern end of the Sunset Trail, which is closed due to erosion.

Impacts on visitors who would prefer to walk dogs at this park site would be long term, moderate, and adverse. Impacts would be adverse since the area available to dog walking would be reduced by approximately 90.4 upland acres and 0.5 miles of beach. Although off-leash dog walking was historically allowed throughout all of Fort Funston, much of the 90.4 acres of reduced upland areas include some fairly vegetated or fenced areas not usually used by dog walkers. Impacts would be moderate since alternative C would provide a loop for dog walkers from either the main parking lot or the John Muir parking lot to the Funston Beach Trail North, then down to the beach and into the VSCA that extends to the southern boundary of Fort Funston. From the southern end of the beach VSCA, the Funston Beach Trail South (sand ladder) would return dog walkers to the main parking lot and to the second VSCA adjacent to the main parking lot. Visitors would have the option of taking dogs to one of two VSCAs or to walk along the on-leash trails. Therefore, dogs that do not receive enough exercise or become aggressive when restrained by a leash would still have the opportunity to walk under voice and sight control within the VSCAs. Alternative C would particularly cause adverse impacts to elderly and handicapped visitors who are mobility impaired. The proposed VSCAs and access trails to the beach VSCA are on sand surfaces which may be hard for mobility-impaired visitors to navigate. However, the paved Sunset Trail is adjacent to the upland VSCA. During the public comment period for the draft plan/EIS many commenters discussed access issues to the proposed VSCA. One commenter stated, “Elderly and disabled people will have great difficulty reaching the beach section to allow their dogs to run off-leash. The most important area for them is the top section where the dogs can run around freely” (NPS 2011a, Correspondence 1543). Another commenter stated, “I walk my dog 2x a day at Fort Funston because I have plantar fasciitis, which does not allow me to walk on loose sand or unpaved ground. Funston has a lot of off-leash paved areas currently, where I am able to walk without pain. Over the years, I have observed many

elderly and disabled people walking their dogs there because they are able to use their canes and walkers on the paved path, while their dogs can exercise on the sand. The new restrictions are clearly discriminatory towards disabled people. You propose to confine us to an area that is mostly loose sand” (NPS 2011a, Correspondence 1567). Visitation by dog walkers in this area would likely remain the same by dog walkers that are not mobility-impaired and use would be concentrated in the VSCAs and on-leash areas.

Impacts on visitors who would prefer not to have dog walking at this park site would be long term, minor to moderate, and adverse. These visitors, especially those with small children, may feel more comfortable if dogs are walked on leash or, when not on leash, are in a VSCA where they would be under better control by their walkers. Dogs would no longer be allowed along the Funston Horse Trail, which would provide a no-dog experience for equestrians, although to reach the trail, riders would go through an on-leash area. Aesthetics would improve in the areas where dogs would no longer be present because dog waste and the odor of dog urine would be reduced. During the public comment period for the draft plan/EIS, one commenter stated, “the current situation has made it so that I do not much enjoy visiting it anymore, since I am routinely being run down by off leash dogs, being hit by tennis balls thrown by owners, stepping on dog waste, and so forth” (NPS 2011a, Correspondence 2701). A no-dog experience would be available on the beach north of the Funston Beach Trail North. This alternative would be compatible with the activities of environmental education programs that the San Francisco Unified School District conducts at Fort Funston. Overall, the conditions at the site for this user group would be better than the no-action alternative; however, impacts would still be minor to moderate and adverse since there would still be a high number of dog walkers using the site and two large VSCA areas. Visitation by this user group could increase.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. In a VSCA, permit holders may walk one to six dogs under voice and sight control. The permit may restrict use by time and area. Permits would be allowed at Fort Funston. Commercial dog walking use is high at Fort Funston. For those visitors wishing to continue to walk more than six dogs, impacts from the permit system would be long-term, moderate, and adverse. Limiting dog walkers to six dogs would be a substantial reduction from the current practice by many commercial dog walkers at Fort Funston. Visitors would either have to reduce the number of dogs walked at Fort Funston or find another dog walking area that would allow more than six dogs. Impacts on visitors who would prefer not to have dog walking at the park would be long term, minor to moderate, and adverse. Although there would be a reduction in the number of dogs walked per dog walker; visitors would continue to encounter dog walkers with up to six dogs throughout the site.

Cumulative Impacts. Projects and actions in and near Fort Funston considered for the cumulative impacts analysis would be the same as those described under alternative B. When the impacts associated with these projects are added to the long-term moderate adverse impacts (for those who prefer dogs) and the long-term minor to moderate adverse impacts (for those who do not prefer dogs) associated with alternative C of the dog management plan, cumulative impacts would be long-term moderate adverse for visitors who would prefer to walk dogs at Fort Funston, and long-term, minor to moderate, and adverse for visitors who would prefer not to have dog walking at the site.

FORT FUNSTON ALTERNATIVE C CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice and sight control would be allowed, but only in two areas	Long-term moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term minor to moderate adverse impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking under voice and sight control would occur in two areas; site experiences high dog walking use, both on and off leash	Long-term minor to moderate adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative D: Most Protective of Resource Protection and Visitor Safety. Dog walking would be allowed under voice and sight control in an approximately 4.7 acre VSCA established in a disturbed area adjacent to the Sunset Trail, across from the entrance to the Funston Beach Trail North. On-leash dog walking would be allowed on the beach south of the Funston Beach Trail North, to the NPS southern boundary, and on all trails except for the northern end of the Sunset Trail (closed due to erosion) and the Funston Horse Trail, where dog walking would be prohibited. A total of approximately 2.1 miles of trails and 0.7 mile of beach would be available for on-leash dog walking. Additional closed areas include a 12-acre habitat protection area that restricts both visitors and dogs and the section of beach near the northern bluffs that has a seasonal closure (April 1 – August 15) for the protection of the bank swallow colony.

Impacts on visitors who would prefer to walk dogs at Fort Funston would be long term, moderate to major, and adverse. This alternative would restrict the area for dog walking at Fort Funston more than any of the other action alternatives. The amount of area for off-leash dog walking would be reduced by approximately 94 upland acres and 1.1 miles of beach. Although off-leash dog walking was historically allowed throughout all of Fort Funston, much of the 94 acres of reduced upland areas include some fairly vegetated or fenced areas not usually used by dog walkers. Impacts would be moderate to major, since this site is currently a high use area for voice control dog walking and the amount of area available for this activity would be limited to one VSCA. In addition, there would be no dog walking under voice and sight control on the beach. Visitors would have the option of taking dogs to the VSCA or using the on-leash dog trails and beach. Therefore, dogs that do not receive enough exercise or become aggressive when restrained by a leash would still have the opportunity to walk under voice and sight control within the one VSCA. During the public comment period for the draft plan/EIS, one commenter stated, “I love dogs and am not allowed to have one in the apartment that I live in. I take walks at Fort Funston so I am allowed to mingle with dogs, enjoy their diversity and get some exercise on top of it. I have never experienced nor witnessed any problems between people and dogs in all of the walks that I have taken. Owners are very conscious about monitoring their dogs and love the attention that I am willing to give their dogs. The "dog area" that you are proposing would be a travesty and ruin the whole feeling of Fort Funston as a great place to get your exercise and mingle with many breeds of dogs” (NPS 2011a, Correspondence 1090). Adverse impacts would be expected for visitors who enjoy watching and playing with dogs off leash. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. Visitation by this visitor group may decrease at Fort Funston since visitors may begin using other areas outside the park as well as GGNRA sites with larger VSCAs, such as Ocean Beach.

Impacts on visitors who would prefer not to have dog walking at this park site would be long term, minor, and adverse. This alternative would provide for a no-dog experience; some of the trails and approximately half of the beach would be closed to dogs. Aesthetics would improve in the areas where dogs would no longer be present since dog waste and the odor of dog urine would be eliminated or reduced. The remaining areas, except the VSCA, would require on-leash dog walking. Some visitors, especially horseback riders, hang gliders, and those with small children, may feel more comfortable in these areas

since the dogs would be under better control by the owner. Visitor incidents (bites/attacks) with dogs would decrease. In general, conditions at Fort Funston would be better for this user group than the no-action alternative because of the no-dog experience available and the requirement of on-leash dog walking in most areas; however, it is anticipated that a large number of dogs would still be present throughout the site; therefore, impacts would be minor. This alternative would be compatible with the environmental education programs that the San Francisco Unified School District conducts in the southern area of Fort Funston. Visitation by this user group would likely increase.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D. Impacts on visitors who would prefer to walk dogs at the site (includes commercial dog walkers) would be long term, moderate, and adverse since commercial dog walking is common at this site. Visitation by commercial dog walkers would decrease and as a result, visitors would no longer encounter dog walkers with multiple dogs. As a result, impacts on visitors who would prefer not to have dog walking at the park would be beneficial.

Cumulative Impacts. Projects and actions in and near Fort Funston considered for the cumulative impacts analysis would be the same as those described under alternative B. When the impacts associated with these projects are added to the long-term moderate to major adverse impacts (for those who prefer dogs) and long-term minor adverse impacts (for those who do not prefer dogs) associated with alternative D of the dog management plan, cumulative impacts would be long-term, moderate to major for visitors who would prefer to walk dogs at Fort Funston and long-term, minor, and adverse for visitors who would prefer not to have dog walking at the site.

FORT FUNSTON ALTERNATIVE D CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate to major adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice and sight control would be allowed in one area; area for dog walking would be reduced	Long-term moderate to major adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking under voice and sight control would be limited to one area; site experiences a high number of dog walkers	Long-term minor adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative E: Most Dog Walking Access / Most Management Intensive. Dog walking would be allowed under voice and sight control in two VSCAs. An approximately 0.7 mile-long beach VSCA would be established south of the Funston Beach Trail North, extending to the Fort Funston southern boundary. The second VSCA would be in a corridor extending from just north of the new trail to be built along the northern edge of the parking lot up to and including the Funston Beach Trail North. The VSCA corridor includes the Chip Trail and sections of the Sunset Trail, Funston Road, and Battery Davis Trail, all north of the parking lot. The VSCA also extends into the disturbed area across from the north Funston Beach Trail North. The Chip Trail would be hardened to improve accessibility. The approximately 17.60 acre upland VSCA would be separated by barriers from the parking lot and adjacent no-dog trails/areas. On-leash dog walking would be allowed on the approximately 0.5 miles of beach north of the Funston Beach Trail North (with a seasonal closure at the base of the northernmost bluffs from April 1 to August 15 when bank swallows are nesting), and on approximately 1.6 miles of trails, excluding the Funston Horse Trail, which would be closed to dog walkers, and the northern end of the Sunset Trail, which is closed due to erosion. An additional closed area is the 12-acre habitat protection area that restricts both visitors and dogs.

Long-term, minor, adverse impacts would be expected on the visitor experience of those who would prefer to walk dogs at Fort Funston. Alternative E offers the most area of all the action alternatives for walking dogs under voice and sight control by providing two VSCAs that would provide a large area for off-leash dog walking and would provide an upland VSCA that connects directly to the beach VSCA. The available area for off-leash dog walking would be reduced by approximately 81.1 upland acres and approximately 0.5 mile of beach. Although off-leash dog walking was historically allowed throughout all of Fort Funston, much of the 81.1 acres of reduced upland areas include some fairly vegetated or fenced areas not generally used by dog walkers. Visitors would have the option of taking dogs to VSCAs or on-leash dog walking areas. Therefore, dogs that do not receive enough exercise or become aggressive when restrained by a leash would still have the opportunity to walk under voice and sight control within the VSCAs. However, the established VSCAs would provide adequate room for dogs to receive a substantial amount of exercise and socialization while under voice and sight control. To reduce impacts to elderly or handicapped visitors, the Chip Trail would be hardened to allow access to the beach VSCA. This improved accessibility would provide a beneficial impact to mobility-impaired visitors who find it hard to navigate on sand surface. Use of the site by visitors who would prefer to walk dogs at this site would continue to be high.

Impacts on visitors who would prefer not to have dog walking at this park site would be long term, moderate, and adverse. Visitors would still encounter both on-leash dogs and dogs under voice and sight control throughout most of the site. Although dogs would still be allowed in most areas of the park site, some visitors may feel more comfortable in the areas where dogs would be walked on leash, and visitors could easily avoid the VSCAs. Since dogs would no longer be allowed on the Funston Horse Trail, dog/horse incidents would be reduced; however, riders would still have to pass through dog walking areas to reach the no-dog trail. Although conditions at Fort Funston would be better for this user group than the no-action alternative, impacts would still be long term, moderate, and adverse because of the two large VSCAs at the site and the high number of dog walkers expected at the site. Visitors would still encounter off-leash dogs since the on-leash areas run adjacent to the VSCAs. In addition, this alternative offers only a small area for a no-dog experience. However, this alternative would be compatible with the environmental education programs that the San Francisco Unified School District conducts at Fort Funston. Visitation by this user group may increase slightly.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. In a VSCA, permit holders may walk one to six dogs under voice and sight control. The permit may restrict use by time and area. Permits would be allowed at Fort Funston. Commercial dog walking use is high at Fort Funston. For those visitors wishing to continue to walk more than six dogs, impacts from the permit system would be long-term, moderate, and adverse. Limiting dog walkers to six dogs would be a substantial reduction from the current practice by many commercial dog walkers at Fort Funston. Visitors would either have to reduce the number of dogs walked at Fort Funston or find another dog walking area that allows more than six dogs. Impacts on visitors who would prefer not to have dog walking at the park would be long term, minor to moderate, and adverse. Although there would be a reduction in the number of dogs per dog walker; visitors would continue to encounter dog walkers with up to six dogs throughout the site.

Cumulative Impacts. Projects and actions in and near Fort Funston considered for the cumulative impacts analysis would be the same as those described under alternative B. When the impacts associated with these projects are added to the long-term minor adverse impacts (for those who prefer dogs) and long-term moderate adverse impacts (for those who do not prefer dogs) associated with alternative E of the dog management plan, cumulative impacts would be long-term, minor, adverse for visitors who would prefer to walk dogs at Fort Funston and long-term, moderate, and adverse for visitors who would prefer not to have dog walking at the site.

FORT FUNSTON ALTERNATIVE E CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice and sight control would be allowed in two areas	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term moderate adverse impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking under voice and sight control would be allowed in two large areas; site experiences a high number of dog walkers; dogs would be allowed on the entire beach	Long-term moderate adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative F: Preferred Alternative. Dog walking under voice and sight control would be allowed in two designated VSCAs, one on the beach south of the Funston Beach Trail North and a second north from the main parking lot. The second Upper Fort Funston VSCA would extend from just north of the new trail to be built along the northern edge of the parking lot that extends to, and includes the Funston Beach Trail North. The Upper Funston VSCA includes the Funston Trail, and the upland area northeast of the Funston Trail, the Funston Beach Trail (north), the upland area east of (but not including) the Sunset Trail and north of the main parking lot, encompassing the Chip Trail and its eastern embankment, to the intersection at the water fountain with, and including the Battery Davis Trail (west). The Chip Trail between the accessible trail along the northern boundary of the main parking lot and the on-leash Sunset Trail would be hardened and elevated above the sand to improve accessibility. The VSCA would be separated by barriers from the parking lot and no-dog trails/areas. A second water fountain and landscape designs would be used to delineate on- and off-leash dog walking areas for safety. A total of 0.7 mile of beach, 0.6 trail miles and 18.4 acres of other grassy or paved areas would be available for off-leash dog walking. On-leash dog walking would be allowed on 1.7 miles of trails north of the parking lot (the Funston Horse Trail (0.9 miles) would be closed to dogs,) and 0.5 miles of Funston Beach Trail South (sand ladder) and Sunset Trail south of the main parking lot. Additional closed areas include a 12-acre habitat protection area that restricts both visitors and dogs for the protection of native plant communities, the bluff area that has a seasonal closure (April 1 – August 15) for the protection of the bank swallow colony, and the northern end of the Sunset Trail, which is closed due to erosion.

Long-term minor adverse impacts would be expected on the visitor experience of those who would prefer to walk dogs at Fort Funston. The preferred alternative offers the most area of all the action alternatives for walking dogs under voice and sight control by providing two, connecting VSCAs that would provide a large area for off-leash dog walking. Even so, the available area for off-leash dog walking would be reduced by 80.3 upland acres and 0.5 mile of beach compared to alternative A. Although off-leash dog walking was historically allowed throughout all of Fort Funston, much of the 81.1 acres of reduced upland areas include some fairly vegetated or fenced areas where dog walking rarely occurs. On-leash dog walking would be required on the trails outside of the VSCA. The beach north of the Funston Beach Trail North and the Funston Horse Trail would be closed to dogs. However, the connecting VSCAs would provide adequate room for dogs to receive a substantial amount of exercise and socialization while under voice and sight control. Visitors would have the option of taking dogs to VSCAs or walking on the on-leash trails. Therefore, dogs that do not receive enough exercise or become aggressive when restrained by a leash would still have the opportunity to walk under voice and sight control within the VSCAs. To reduce impacts mobility-impaired visitors such as elderly or handicapped, the Chip Trail would be hardened to allow improved access to the beach VSCA. Use of the site by visitors who would prefer to walk dogs at this site would continue to be high.

Impacts on visitors who would prefer not to have dog walking at this park site would be long term, moderate, and adverse. Visitors would still encounter both on-leash dogs and dogs under voice and sight control throughout most of the site. Although dogs would still be allowed in most areas of the park site, some visitors may feel more comfortable in the areas where dogs would be walked on leash, and visitors could easily avoid the majority of the VSCAs. Equestrians would be able to use the Funston Horse Trail where dog walking is not allowed; however, riders would still have to pass through dog walking areas to reach the no-dog trail. Although conditions at Fort Funston would be better for this user group than the no-action alternative, impacts would still be long term, moderate, and adverse because of the two large VSCAs at the site and the high number of dog walkers expected at the site. Visitors would still encounter off-leash dogs since the on-leash areas are near the VSCAs, and in two places briefly cross the VSCAs. In addition, this alternative offers only a relatively small area for a no-dog experience; the Funston Horse Trail and the beach north of the Funston Beach Trail North. However, this alternative would be compatible with the environmental education programs that the San Francisco Unified School District conducts at Fort Funston and would provide greater staff safety since dog walking would be prohibited off the two named trails south of the main parking lot. Visitation by this user group may increase slightly.

Under alternative F, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. In a VSCA, permit holders may walk one to six dogs under voice and sight control. The permit may restrict use by time and area. Permits would be allowed at Fort Funston. Commercial dog walking use is high at Fort Funston. For those visitors wishing to continue to walk more than six dogs, impacts from the permit system would be long-term, moderate, and adverse. Limiting dog walkers to six dogs would be a substantial reduction from the current practice by many commercial dog walkers at Fort Funston. Visitors would either have to reduce the number of dogs they walk at Fort Funston or find another dog walking area that allows more than six dogs. Impacts on visitors who would prefer not to have dog walking at the park would be long term, minor to moderate, and adverse. Although there would be a reduction in the number of dogs walked per dog walker; visitors would continue to encounter dog walkers with up to six dogs throughout the site.

Cumulative Impacts. New restroom facilities at Fort Funston would enhance the visitor experience for all visitors at Fort Funston including both user groups that are the focus of this analysis; however, the benefit would not be great enough to alter the analysis of impacts for either group under alternative F. Implementation of the proposed SNRAMP (SFPD 2011) may further restrict dog access and off-leash areas in San Francisco, including Lake Merced (near Fort Funston and Ocean Beach) and other natural areas (Bernal Hill and McLaren Park, closest to Fort Funston and Ocean Beach). There is potential for increased use of dog walkers at Fort Funston resulting from the reduction in DPAs since Lake Merced, Bernal Hill, and McLaren Park were identified in the visitor satisfaction survey as alternative sites for dog walking (NPS 2012a, 21-66).

If there is an increase in dog walkers due to the closure of the DPAs, the VSCAs have the potential to become overcrowded. Impacts to visitors who prefer to walk dogs from the combined cumulative projects would be long-term, minor, and adverse. The cumulative impacts to visitors who prefer not to have dog walking would be long-term, moderate, and adverse.

FORT FUNSTON PREFERRED ALTERNATIVE F CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice and sight control would be allowed in two VSCAs; on-leash dog walking would be allowed on most trails; the Chip Trail would be hardened to improve access for mobility-impaired visitors	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term moderate adverse impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking under voice and sight control would occur in two areas and on-leash dog walking would be allowed on trails outside of the upland VSCA; site experiences high dog walking use, both on and off leash; Funston Horse Trail would be closed to dogs but riders would pass through on-leash dog walking areas to access the trail	Long-term moderate adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

SAN MATEO COUNTY SITES

Mori Point

Alternative A: No Action. On-leash dog walking is allowed on all trails at Mori Point. A total of approximately 3.1 miles of trail and less than 0.1 mile of beach are available for on-leash dog walking. Visitor use in this area is considered moderate to high for walkers, runners, and bicyclists and moderate for dog walkers (table 10). Most people that use Mori Point for recreation are from the local residential neighborhoods, although the site is attracting more visitors from outside the City of Pacifica as the public learns about restoration activities conducted at the site. Some visitors are not complying with the leash law; off-leash violations totaled 146 from 2008 through 2011 (table 27a). A total of 13 dog-related incidents were recorded between 2012 and 2016 (table 27b).

There would be no impact on visitors who would prefer to walk dogs at the park under the no-action alternative. Visitors would continue to use the area for exercising, playing with, and socializing their pets throughout the site. Some visitors would continue to be noncompliant with the leash restrictions. Visitation by this user group would remain the same at this site.

Impacts on visitors who would prefer not to have dog walking at the park site would be long term, minor, and adverse. Visitors would continue to encounter on-leash dogs and the occasional dog walker allowing dogs off leash. Visitors would not be able to have a no-dog experience at this site. Some walkers, runners, and bicyclists may prefer to experience these activities without the presence of dogs. Some visitors may avoid this site due to the presence of dogs. Visitation by this user group would have the potential to decrease at this site.

Under alternative A, no permit system exists for dog walking. At Mori Point, commercial dog walking is uncommon. The impacts from commercial dog walkers to visitor experience are similar to the impacts discussed above for both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at this park site.

Cumulative Impacts. Projects and actions in and near Mori Point were considered for the cumulative impacts analysis (appendix K). The NPS has completed the Mori Point Restoration and Trail Plan

projects, which included development of a safe and sustainable trail system that improved recreational experiences and guided visitors away from restoration areas, and endangered species habitat areas (NPS 2010e, 1). The CalTrans Devil’s Slide Tunnel project involved the construction of two tunnels beneath San Pedro Mountain which provided a dependable highway between Pacifica and Montara. Indirectly, this project would improve visitor access to San Mateo NPS sites.

Restoration projects at Mori Point have resulted in enhanced aesthetics; improved trails and recreational enjoyment for all visitors to Mori Point. All visitors, including both user groups enjoy the enhanced viewshed of the restored habitat and improved trails and safety that have resulted from trail improvements; however, it is not expected that overall, visitor use would increase at Mori Point as a result of the project improvements. Visitors originating from the neighboring residential area may increase but this would not be great enough to alter the level or intensity of impacts for either visitor group. As a result, enhancements resulting from the projects at Mori Point would not substantially add to their visitor experience and expected cumulative impacts under alternative A would be long-term, minor, and adverse for visitors who would prefer not to have dog walking at this site and negligible cumulative impacts to visitors who prefer to walk dogs at Mori Point.

MORI POINT ALTERNATIVE A CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
No impact for visitors who would prefer to walk dogs at the park	On-leash dog walking would continue on all trails throughout the site and the beach	Negligible cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park	Visitors would still encounter dogs on all trails throughout the site and on the beach	Long-term minor adverse cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative B: NPS Leash Regulation. On-leash dog walking would be allowed along the Mori Coastal Trail and the portion of beach within the park boundary. A total of approximately 0.7 mile of trails and less than 0.1 mile of beach would be available for on-leash dog walking. Dogs would no longer be allowed on Old Mori Trail and the Pollywog Trail that connects directly to the neighborhood, the trail with direct access from Highway 1, or the loop trail.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor to moderate, and adverse. The area available for dog walking would be reduced by 2.4 miles of trails. Visitors from the local community would no longer be allowed to use the direct connector trail to the park site. This would also limit access to many elderly visitors and families with small children. Impacts would be minor to moderate since this is a moderate use site for dog walkers. Limiting dog walking areas would reduce visitors’ enjoyment of this site. Visitation by this user group would likely decrease.

Impacts on visitors who would prefer not to have dog walking at Mori Point would be beneficial. Visitors would still encounter on-leash dogs on some trails at this site; however, many areas, including the Bootlegger’s Steps, Mori Bluff Trail, Lishumsha Trail, Pollywog Trail, Old Mori Trail, and Timigtac Trail, would be available for a no-dog experience. A total of 2.4 miles of trails would be available for a no-dog experience. Visitation by this user group would have the potential to increase.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs on leash per person with no permit required. Since commercial dog walking is not common at Mori Point, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Mori Point considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor to moderate adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative B of the dog management plan, cumulative impacts would be long-term, minor to moderate, and adverse for visitors who would prefer to walk dogs at Mori Point and beneficial for visitors who would prefer not to have dog walking at the site.

MORI POINT ALTERNATIVE B CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would be limited to one trail and the beach	Long-term minor to moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	On-leash dog walking would be limited to one trail and the beach; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative C: Emphasis on Multiple Use – Balanced by County. On-leash dog walking would be allowed along the Mori Coastal Trail, Old Mori Trail, and the portion of beach within the park boundary. A total of approximately 1.2 miles of trails and less than 0.1 mile of beach would be available for on-leash dog walking. Dogs would no longer be allowed on the neighborhood connector trail (Pollywog Trail), the trail with direct access from Highway 1, or the loop trail.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor to moderate, and adverse. The area available for dog walking would be reduced by 1.9 miles of trails. Most of the dog walking at this site is by done local residents, and if the neighborhood connector trail is closed to dogs, this would be an adverse impact on this user group. Prohibiting dog walking on the Pollywog Trail would also limit access to many elderly visitors and families with small children, although there are other accessible sites for walking dogs off leash within GGNRA. During the public comment period for the draft plan/EIS, one commenter stated “I walk my two small dogs on the bluff trail at Mori point nearly every days. I enjoy the views so much, and there is never anyone else there on that trail. We are no trouble or bother to anyone. It is so close to my home -- I cannot travel further to exercise my little dogs” (NPS 2011a, Correspondence 3529). Limiting dog walking areas would reduce visitors’ enjoyment of this site. As a result, visitation to this site by local residents with dogs may decrease.

Impacts on visitors who would prefer not to have dog walking at Mori Point would be beneficial. Visitors would still encounter on-leash dogs on some trails at this site; however, many areas, including the Bootlegger Steps, Mori Bluff Trail, Lishumsha Trail, and Timigtac Trail, would be available for a no-dog experience. A total of approximately 1.9 miles of trails would be available for a no-dog experience. Visitation by this user group would have the potential to increase.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be issued for Mori Point, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Mori Point, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Under alternative C, the cumulative impacts on visitor use and experience at this park site would be the same those under alternative B: long-term minor to moderate and adverse cumulative impacts on visitors who prefer dogs, and beneficial impacts on visitors who do not prefer dogs.

MORI POINT ALTERNATIVE C CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would be limited to two trails and the beach	Long-term minor to moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking would be limited to two trails and the beach; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, dogs would be prohibited in the entire Mori Point park site.

Impacts on visitors who would prefer to walk dogs at the park would be long term, moderate to major, and adverse. Impacts would be moderate to major since dog walkers would be required to use a different area inside or outside GGNRA for dog walking and Mori Point has moderate use by dog walkers. During the public comment period for the draft plan/EIS commenters expressed how dog walking at Mori Point was important to them. One commenter stated, “My family enjoys walking the trails in Mori Point, we often take our children and our dog. We enjoy the ocean, flowers, exercise and meeting our friends and strangers alike on the trail. We are respectful of the space, pick up any trash we see, stay on the trails and encourage others to do so. Taking away that privilege for our dogs will seriously impact the way we enjoy the space, exercise and our quality of life here in Pacifica” (NPS 2011a, Correspondence 3436). Visitors would no longer receive personal benefits from walking dogs at the site. Limiting dog walking areas would reduce visitors’ enjoyment of this site. Dog walking is a popular activity at Mori Point, especially by the local residents with dogs; as a result, visitation by this user group would no longer occur at this site.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Visitors would no longer encounter dogs and would therefore have access to the entire site for a no-dog experience. Walkers, runners, and bicyclists who prefer to experience these activities without the presence of dogs would benefit from this alternative. Visitation by this user group would be expected to increase at this site.

Since dogs would not be allowed at this site the impacts to commercial dog walkers are similar to the impacts discussed above for visitors who would prefer to walk dogs at the park.

Cumulative Impacts. Projects and actions in and near Mori Point considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term moderate to major adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative D of the dog management plan, cumulative impacts would be long-term, moderate to major, and adverse for visitors who would prefer to walk dogs at Mori Point and beneficial for visitors who would prefer not to have dog walking at the site.

MORI POINT ALTERNATIVE D CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate to major adverse impacts for visitors who would prefer to walk dogs at the park	No dog walking would be allowed	Long-term moderate to major adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	No dog walking would be allowed; a no-dog experience would be available throughout the site	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative E: Most Dog Walking Access / Most Management Intensive. On-leash dog walking would be allowed on the Mori Coastal Trail, Old Mori Trail, the Pollywog Trail, and the portion of beach within the GGNRA boundary. A total of approximately 1.4 miles of trails and less than 0.1 mile of beach would be available for on-leash dog walking. No dog walking would be allowed on the trail with direct access from Highway 1 or the loop trail.

Impacts on visitors who would prefer to walk dogs at the park would be long-term, minor, and adverse. On-leash dog walking would be available on three trails and the beach at the site. Although the trails available for dog walking would be reduced by approximately 1.7 miles, impacts would be minor since a relatively large area would remain available for on-leash dog walking and the local community would have direct access to the site via the Pollywog Trail. Visitation by this user group would be expected to remain the same at this site.

Impacts on visitors who would prefer not to have dog walking at Mori Point would be beneficial. Visitors would still encounter on-leash dogs on some trails at this site; however, many areas, including the Bootlegger’s Steps, Mori Bluff Trail, Lishumsha Trail, and Timigtac Trail, would be available for a no-dog experience. Visitation by this user group would have the potential to increase.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be issued for Mori Point, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Mori Point, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Mori Point considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative E of the dog management plan, cumulative impacts would be long-term, minor, and adverse for visitors who would prefer to walk dogs at Mori Point and beneficial for visitors who would prefer not to have dog walking at the site.

MORI POINT ALTERNATIVE E CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would be allowed on most trails and the beach	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Some trails would prohibit dogs; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative F: Preferred Alternative. The preferred alternative includes on-leash dog walking along the Coastal Trail, Old Mori Road, Pollywog Trail, Mori Headlands Trail, and the southeastern section of Sharp Park beach within the GGNRA boundary. A total of approximately 1.4 miles of trails and less than 0.1 mile of beach would be available for on-leash dog walking.

Impacts on visitors who would prefer to walk dogs at the park would be long-term, minor, and adverse. On-leash dog walking would be available on four trails and the beach. Although the trails available for dog walking would be reduced by approximately 1.8 miles, impacts would be minor since a relatively large area would remain available for on-leash dog walking and the local community would have direct access to the site via the Pollywog Trail. Visitation by this user group would be expected to remain the same at this site.

Impacts on visitors who would prefer not to have dog walking at Mori Point would be beneficial. Visitors would still encounter on-leash dogs on some trails at this site; however, many areas, including the Timigtac, Lishymsha, Upper Mori, and Mori Peak trails or the Bootlegger's Steps, would be available for a no-dog experience. A total of approximately 1.5 miles of trails would be available for a no-dog experience. Visitation by this user group would have the potential to increase.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be issued for Mori Point, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Mori Point, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Mori Point were considered for the cumulative impacts analysis (appendix K). The NPS completed the Mori Point Restoration and Trail Plan projects, which included development of a safe and sustainable trail system that improved recreational experiences and guided visitors away from disturbed areas, restoration areas, and endangered species habitat areas (NPS 2010e, 1). The CalTrans Devil's Slide Tunnel project involved the construction of two tunnels beneath San Pedro Mountain to provide a dependable highway between Pacifica and Montara. Indirectly, this project would improve visitor access to San Mateo NPS sites.

Restoration projects at Mori Point resulted in enhanced aesthetics; improved trails and recreational enjoyment for all visitors to Mori Point. All visitors, including both user groups enjoy the enhanced viewshed of the restored habitat and improved trails and safety that resulted from the trail improvements; however, it is not expected that overall, visitor use would increase at Mori Point as a result of the project improvements. Visitors originating from the neighboring residential area may increase but this would not be great enough to alter the level or intensity of impacts for either visitor group. As a result,

enhancements resulting from the projects at Mori Point would not substantially add to their visitor experience and expected impacts under the preferred alternative would remain the same for both user groups: long-term, minor and adverse for visitors who would prefer to have dog walking at this site, and beneficial impacts on visitors who prefer to walk dogs at Mori Point.

MORI POINT PREFERRED ALTERNATIVE F CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	On-leash dog walking would be allowed on three trails and the beach	Long-term minor adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking would be on leash and limited to three trails and the beach; a no-dog experience would be available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Milagra Ridge

Alternative A: No Action. On-leash dog walking is currently allowed on all trails and the fire road at this park site. A total of approximately 2.7 miles of trails are available for on-leash dog walking. Visitors (mostly locals) use the site for dog walking, hiking, and bicycling. Visitor use is considered moderate for hiking and bicycling and low to moderate for dog walking (table 10). Some visitors are not complying with the leash law; violations totaled 35 from 2008 through 2011 (table 28a). A total of 15 dog-related incidents were recorded between 2012 and 2016 (table 28b).

There would be no impact on visitors who would prefer to walk dogs at the park. On-leash dog walking would continue to be allowed throughout the site and some visitors would continue to be noncompliant with the leash restrictions. Visitation by this user group would remain the same.

Impacts on visitors who would prefer not to have dog walking at the park would be long term, minor, and adverse. During the public comment period of the draft plan/EIS one commenter described conditions at Milagra Ridge as the following, “I would prefer to have dogs banned from Mori Point, Milagra Ridge, and Sweeney Ridge altogether...no leashed or unleashed dogs. I have done extensive hiking and biking at all locations mentioned and many dog owners begin their walks with their dogs on leash and then take the leash off when they get away from parking areas. I have seen dogs chasing birds, squirrels and other wildlife. If all dogs are banned it is easier to regulate. There is no way that rangers and other law enforcement can make sure all dogs remain on leash” (NPS 2011a, Correspondence 3659). Visitors would continue to encounter on-leash dogs and the occasional dog walker allowing dogs off leash. Visitors would not be able to have a no-dog experience at this park site. Visitation by this user group would have the potential to decrease.

Under alternative A, no permit system exists for dog walking. At Milagra Ridge, commercial dog walking is uncommon. The impacts from commercial dog walkers to visitor experience are similar to the impacts discussed above for both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at this park site.

Cumulative Impacts. There is no known project or action that has had, is currently having, or will have effects on visitor use and experience in the vicinity of this park site.

MILAGRA RIDGE ALTERNATIVE A CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
No impact for visitors who would prefer to walk dogs at the park	On-leash dog walking would continue on all trails throughout the site	N/A
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park	Visitors would still encounter dogs on all trails throughout the site	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Under alternative B, on-leash dog walking would be allowed on the fire road, the trails to the westernmost overlook and WW II bunker, and the future Milagra Battery Trail. A total of approximately 1.5 miles of trails would be available for on-leash dog walking. Dog walking would not be allowed on the trail to the top of the hill or the trail to the two southern overlooks.

Impacts on visitors who would prefer to walk dogs at Milagra Ridge would be long term, minor, and adverse. Dog walking would still be allowed at this site; however, some trails would now prohibit dogs. The area available for on-leash dog walking would be reduced by approximately 1.3 miles of trails. Impacts would be minor since this site experiences low to moderate use by dog walkers. Limiting dog walking areas would reduce visitors' enjoyment of this site. Visitation by this user group would have the potential to decrease.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Some trails would now prohibit dogs, allowing visitors to hike or bicycle on these trails without the presence of dogs. Some visitors may feel more comfortable recreating at this site without the presence of dogs. Visitation by this user group may increase.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs on leash per person with no permit required. Since commercial dog walking is not common at Milagra Ridge, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. There is no known project or action that has had, is currently having, or will have effects on visitor use and experience in the vicinity of this park site.

MILAGRA RIDGE ALTERNATIVE B CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would be restricted to on leash and on the fire road	N/A
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking on leash would be limited to the fire road; a no-dog experience would be available	N/A

N/A = not applicable.

Alternative C: Emphasis on Multiple Use – Balanced by County. Dog walking restrictions under alternative C would be the same as under alternative B and impacts on visitor use and experience would

also be the same: long term, minor, and adverse for visitors who would prefer to walk dogs at Milagra Ridge and beneficial for visitors who would prefer not to have dog walking at Milagra Ridge.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, Milagra Ridge is not one of the sites for which permits would be issued, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking at Milagra Ridge is not common, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. There is no known project or action that has had, is currently having, or will have effects on visitor use and experience in the vicinity of this park site.

MILAGRA RIDGE ALTERNATIVE C CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would be limited to on leash and on the fire road	N/A
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking would be limited to on leash and on the fire road; a no-dog experience would be available	N/A

N/A = not applicable.

Alternative D: Most Protective of Resource Protection and Visitor Safety. Dogs would no longer be allowed in Milagra Ridge under alternative D.

Impacts on visitors who would prefer to walk dogs at this park site would be long term, moderate, and adverse. During the public comment period for the draft plan/EIS, many commenters stated concerns of not allowing dog walking at Milagra Ridge. One commenter stated, “This is a wonderful space that is lightly utilized (some of the time I’m there alone with my dogs). The heaviest users are people with dogs, and everyone I’ve seen with just a couple of exceptions respects the on leash requirements here. We like to walk along the dirt trails as well as the paved ones, for the variety, for the exercise, and for the views. I’ve never heard of any negative encounters between dogs and wildlife (the one time we saw a deer I held my dogs close and there was no interaction). Closing off any of it to dogs on leash is unfair and unnecessary to protect this park. Dogs have been using it for many many years with no ill effects to either wildlife, vegetation or other users...” (NPS 2011a, Correspondence 3726). Another commenter described the importance of having dogs on the trails, “First, when I am trail running the dogs constitute a form of security for me. Yes, they are getting much needed exercise, but they are also providing me another two pairs of eyes and ears. Given the isolation of many of these trails, especially when you are more than 2-3 miles from the trail heads, I would honestly not feel comfortable running or walking there without the dogs. ... To ban dogs entirely from the Milagra Ridge trails, in particular, would make it more risky for women such as myself to use these trails for anything other than short walks, and in fact would make me sufficiently uncomfortable so as to prevent me from using them at all” (NPS 2011a, Correspondence 3494). Visitors would no longer receive personal benefits from walking dogs at the site. Visitors who would prefer to walk dogs at the park would need to visit other areas of GGNRA or nearby parks for dog walking. Visitation by this user group would no longer occur at this park site.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Visitors would no longer encounter dogs at this site. The entire Milagra Ridge site would be available for visitors

to experience the park without the presence of dogs. These visitors may feel more comfortable recreating at the site without the presence of dogs. Visitation by this user group would be expected to increase.

Since dogs would not be allowed at this site the impacts to commercial dog walkers are similar to the impacts discussed above for visitors who would prefer to walk dogs at the park.

Cumulative Impacts. There is no known project or action that has had, is currently having, or will have effects on visitor use and experience in the vicinity of this park site.

MILAGRA RIDGE ALTERNATIVE D CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate adverse impacts for visitors who would prefer to walk dogs at the park	No dog walking would be allowed throughout the site	N/A
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	No dog walking would be allowed; a no-dog experience would be available	N/A

N/A = not applicable.

Alternative E: Most Dog Walking Access / Most Management Intensive. Dog walking regulations would be the same as those under alternative B, with the exception of an added on-leash trail to the top of the hill opposite the WW II bunker, which would allow for additional trail mileage (total of approximately 1.7 miles of trails) for dog walking under this alternative.

Impacts on visitors who would prefer to walk dogs at Milagra Ridge would be negligible to long-term, minor, and adverse. Dog walking would be allowed on most of the trails at this site. The area available for dog walking would be reduced by 1.1 miles of trails. Visitors could continue to use most of the trails for exercising, playing with, and socializing their pets. Visitation by this user group would have the potential to decrease.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Allowing on-leash dog walking on some, but not all, trails at Milagra Ridge would allow visitors to experience some of the site without dogs. Visitation by this user group may increase.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, Milagra Ridge is not one of the sites where permits would be allowed, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Milagra Ridge, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. There is no known project or action that has had, is currently having, or will have effects on visitor use and experience in the vicinity of this park site.

MILAGRA RIDGE ALTERNATIVE E CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Negligible to long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would be available on leash on most trails	N/A
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	A no-dog experience would be available; some trails would prohibit dogs	N/A

N/A = not applicable.

Alternative F: Preferred Alternative. The preferred alternative would include on-leash dog walking on the Fire Road within the park boundary from the Sharp Park Road entrance west to the Milagra Battery Trail, and the Milagra Ridge Battery Trail from the Battery #244 (Bunker) to the parking lot at the western NPS boundary of the site. A total of approximately 1.5 miles of trails would be available for on-leash dog walking with an additional 0.2 trail miles available under Water District jurisdiction. Dog walking would not be allowed on the Milagra Ridge and Milagra Overlook Trails and the Milagra Ridge Spur, which together extend across the site.

Impacts on visitors who would prefer to walk dogs at Milagra Ridge would be long term, minor, and adverse. Dog walking would still be allowed at this site; however, some trails would now prohibit dogs. The area available for on-leash dog walking would be reduced by approximately 1.04 miles of trails. During the public comment period of the draft plan/EIS, one commenter stated, "...proposed plan essentially closes the entire park to dogs - the single open trail is inadequate" (NPS 2011a, Correspondence 1702). Since the draft plan/EIS an additional trail, Milagra Ridge Road up to the summit, would allow on-leash dog walking. Limiting dog walking areas would reduce visitors' enjoyment of this site. Visitation by this user group would have the potential to decrease.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. Some trails would now prohibit dogs, allowing visitors to hike or bicycle on these trails without the presence of dogs. Some visitors may feel more comfortable recreating at this site without the presence of dogs. Visitation by this user group may increase.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be granted at Milagra Ridge, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Milagra Ridge, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. There is no known project or action that has had, is currently having, or will have effects on visitor use and experience in the vicinity of this park site.

MILAGRA RIDGE PREFERRED ALTERNATIVE F CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking would be restricted to the fire road	N/A
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking would be limited to the fire road; a no-dog experience would be available	N/A

N/A = not applicable.

Sweeney Ridge/Cattle Hill

Alternative A: No Action. On-leash dog walking is currently allowed on all trails at Sweeney Ridge except the Notch Trail. A total of approximately 6.8 miles of on-leash dog walking trails are available. Visitor use in this area is typically by dog walkers, bicyclists, and hikers. Visitation by dog walkers is considered low to moderate, and some visitors are not complying with the leash law; off-leash incidents totaled 115 from 2008 through 2011 (table 29a). Between 2012 and 2016, a total of 18 dog-related incidents were recorded (table 29b). Visitation by other user groups (e.g., bicyclists, hikers) is considered low. Cattle Hill is currently not part of GGNRA; however, some dog walking does take place at this site. Overall, visitation at these sites, especially Cattle Hill, would be expected to increase, especially once Cattle Hill is transferred to the park.

There would be no impact on visitors who would prefer to walk dogs at the park under the no-action alternative. Visitors would continue on-leash dog walking throughout the Sweeney Ridge area and some visitors would continue to be noncompliant with the leash restrictions. Dog walking would also continue at Cattle Hill. Visitation by this user group would remain the same.

Impacts on visitors who prefer to not have dog walking at the park would be long term, minor to moderate, and adverse. Visitors would continue to encounter both on-leash and off-leash dogs throughout the sites. Impacts would be minor to moderate since the site is not heavily used by dog walkers. The only area available for a no-dog experience is the Notch Trail at Sweeney Ridge. Some walkers, bicyclists, and hikers may prefer to recreate at this park site without the presence of dogs. Visitation by this user group could decrease.

Under alternative A, no permit system exists for dog walking. At Sweeney Ridge/Cattle Hill, commercial dog walking is uncommon. The impacts from commercial dog walkers to visitor experience are similar to the impacts discussed above for both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at these park sites.

Cumulative Impacts. There is no known project or action that has had, is currently having, or will have effects on visitor use and experience in the vicinity of this park site.

SWEENEY RIDGE/CATTLE HILL ALTERNATIVE A CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
No impact for visitors who would prefer to walk dogs at the park	On-leash dog walking would continue throughout the site	N/A
Long-term minor to moderate adverse impacts for visitors who would prefer not to have dog walking at the park	Visitors would still encounter dogs on leash throughout the site	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Under alternative B, no dogs would be allowed in the Sweeney Ridge or Cattle Hill areas of GGNRA. Changes to the dog walking regulation at Cattle Hill would not occur until the land is transferred to the NPS.

Impacts on visitors who would prefer to walk dogs at the park would be long term, moderate, and adverse. Dog walking would no longer occur at these sites. Visitors would no longer receive personal benefits from walking dogs at the site. During the public comment period for the draft plan/EIS, many commenters described the importance of dog walking at this site and how the closure would affect them. One commenter stated, “it would eliminate my ability to use the area. I thought the need for open recreational space would surely be more important than closing the whole area because of occasional dog leash violators. I truly enjoy Sweeney Ridge Trail and eliminating my access to myself and my dog violates the very principal of your mission. If preserving the natural resources of the area is the top priority, then perhaps no one should have access. Your preferred alternative is too extreme and would only server the purpose of a very small minority. This trail is a paved road that has been ripped into the hill, the vegetation has been highly altered around it. A couple of leashed dogs a day is the least of it's challenges” (NPS 2011a, Correspondence 2895). Another commenter stated, “This park has steep trails that provide intense exercise and reward us with spectacular views. We need this place and our dogs need this place. Dogs have been using these trails for many many years and there is no compelling reason to destroy what has been a workable and successful human/dog experience” (NPS 2011a, Correspondence 3726). Visitors who typically use these areas for dog walking would now be required to find other sites within or outside GGNRA to walk their dogs. Impacts would be moderate since these sites receive up to moderate use by dog walkers. Visitation by this user group would no longer occur.

Impacts on visitors who would prefer not to have dog walking at these park sites would be beneficial. Visitors would no longer encounter either on-leash or off-leash dogs. Both sites would be available for visitors to recreate without the presence of dogs. Visitation by this user group would likely increase.

Since dogs would not be allowed at these sites the impacts to commercial dog walkers are similar to the impacts discussed above for visitors who would prefer to walk dogs at the park.

Cumulative Impacts. There is no known project or action that has had, is currently having, or will have effects on visitor use and experience in the vicinity of this park site.

SWEENEY RIDGE/CATTLE HILL ALTERNATIVE B CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate adverse impacts for visitors who would prefer to walk dogs at the park	No dog walking would be allowed throughout the site	N/A
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	No dog walking would be allowed; a no-dog experience would be available	N/A

N/A = not applicable.

Alternative C: Emphasis on Multiple Use – Balanced by County. Under alternative C, no dog walking would be allowed at Sweeney Ridge. On-leash dog walking would be allowed on approximately 1.1 mile of trail at Cattle Hill and the Baquiano Trail from Fassler Avenue up to and including the Farallon View Trail. Changes to the dog walking regulation at Cattle Hill would not occur until the land is transferred to the NPS.

Impacts on visitors who would prefer to walk dogs at the park would be long term, minor to moderate, and adverse. Adverse impacts would occur since dog walkers would no longer be allowed in the Sweeney Ridge site which receives moderate use by dog walkers. The area available for dog walking at Sweeney Ridge would be reduced by approximately 6.8 miles of trails. Visitors would no longer be able to enjoy exercising, socializing, and playing with their dogs at Sweeney Ridge. However, visitors would be allowed to walk dogs on-leash on approximately 1.1 miles of trail at Cattle Hill. Some visitors in this user group may find a different area in GGNRA or a local city or county park to walk their dogs. As a result, visitation by local residents with dogs may decrease in this area.

Impacts on visitors who would prefer not to have dog walking at the park would be beneficial. The entire site of Sweeney Ridge and portions of the Cattle Hill site would be available for a no-dog experience. Visitors who would prefer not to have dog walking at the park may feel more comfortable recreating at Sweeney Ridge since dogs would be absent from this site.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, Cattle Hill or Sweeney Ridge are not sites for which permits would be issued, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Cattle Hill, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park. Since dogs would not be allowed at Sweeney Ridge the impacts to commercial dog walkers are similar to the impacts discussed above for visitors who would prefer to walk dogs at the park.

Cumulative Impacts. There is no known project or action that has had, is currently having, or will have effects on visitor use and experience in the vicinity of this park site. Sweeney Ridge/Cattle Hill
Alternative C Conclusion Table

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts for visitors who would prefer to walk dogs at the park	No dog walking would be allowed at Sweeney Ridge; limited on-leash dog walking would be allowed at Cattle Hill	N/A
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	No dog walking would be allowed at Sweeney Ridge and limited on-leash dog walking would be allowed at Cattle Hill; a no-dog experience would be available	N/A

N/A = not applicable.

Alternative D: Most Protective of Resource Protection and Visitor Safety. Dog walking restrictions under alternative D would be the same as under alternative B and impacts on visitor use and experience would also be the same: long term, moderate, and adverse for visitors who would prefer to walk dogs at these park sites and beneficial for visitors who would prefer not to have dog walking at these park sites.

Since dogs would not be allowed at these sites the impacts to commercial dog walkers are similar to the impacts discussed above under alternative B for visitors who would prefer to walk dogs at the park.

Cumulative Impacts. There is no known project or action that has had, is currently having, or will have effects on visitor use and experience in the vicinity of this park site. Sweeney Ridge/Cattle Hill
Alternative D Conclusion Table

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate adverse impacts for visitors who would prefer to walk dogs at the park	No dog walking would be allowed throughout the site	N/A
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	No dog walking would be allowed; a no-dog experience would be available	N/A

N/A = not applicable.

Alternative E: Most Dog Walking Access / Most Management Intensive. On-leash dog walking would be allowed on Sneath Lane, the Sweeney Ridge Trail from the Portola Discovery Site to the Notch Trail, and to the junction with Mori Ridge Trail. Dogs would be prohibited on all other Sweeney Ridge trails. A total of approximately 4.1 miles of trails would be available at Sweeney Ridge for on-leash dog walking. At Cattle Hill, approximately 1.1 miles of trail would allow on-leash dog walking, the Baquiano Trail from Fassler Avenue up to and including the Farallon View Trail. Changes to the dog walking regulation at Cattle Hill would not occur until the land is transferred to the NPS.

Impacts on visitors who would prefer to walk dogs at the park would be long-term, minor, and adverse. Impacts would be minor since on-leash dog walking would still be allowed on the Sweeney Ridge Trail at Sweeney Ridge and on the Farallon View Trail and a portion of the Baquiano Trail at Cattle Hill; however, the area available for dog walking would be reduced by approximately 2.7 miles of trails. Dog walking would be prohibited on the Notch Trail and Baquiano Trail in Sweeney Ridge. Visitors should feel that they have adequate trails to be able to enjoy exercising, socializing, and playing with their dogs. Limiting dog walking areas would reduce visitors’ enjoyment of this site. Visitation by this user group would likely remain the same.

Impacts on visitors who would prefer not to have dog walking at this park site would be long term, minor, and adverse. Visitors would continue to encounter on-leash dog walkers on many trails at Sweeney Ridge and dog walkers would be allowed at Cattle Hill once that site transfers to the NPS. Some walkers, bicyclists, and hikers may feel uncomfortable recreating in these areas due to the presence of dogs. However, visitors would have the opportunity to experience the park without the presence of dogs along the Notch Trail and Baquiano Trail at Sweeney Ridge. Visitation by this user group would have the potential to decrease.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be issued for Sweeney Ridge/Cattle Hill, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Sweeney Ridge/Cattle Hill, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. There is no known project or action that has had, is currently having, or will have effects on visitor use and experience in the vicinity of this park site.

SWEENEY RIDGE/CATTLE HILL ALTERNATIVE E CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	On-leash dog walking would be available on trails at both sites	N/A
Long-term minor adverse impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	On-leash dog walking would be available on trails at both sites	N/A

N/A = not applicable.

Alternative F: Preferred Alternative. On-leash dog walking would be allowed at Sweeney Ridge on Sneath Lane and Sweeney Ridge Trail between Portola Discovery site and the Nike Missile Site, a total of approximately 2.4 miles. On-leash dog walking would be allowed on approximately 1.1 miles of trails at Cattle Hill on the Baquiano Trail from Fassler Avenue gate to the intersection with, and including the Farallon View Trail. Changes to the dog walking regulation at Cattle Hill would not occur until the land is transferred to the NPS.

Impacts on visitors who would prefer to walk dogs at the park would be long-term, minor, and adverse. Although the area available for dog walking would be reduced by approximately 4.4 miles of trails, the preferred alternative offers on-leash dog walking opportunities at both Sweeney Ridge and Cattle Hill. Impacts would be minor since this area can receive up to moderate use by dog walkers. Visitors would have adequate trails to be able to enjoy exercising with their dogs; however, limiting dog walking areas would reduce some visitors' enjoyment of this site. Visitation by this user group would likely remain the same.

Impacts on visitors who would prefer not to have dog walking at this park site would be negligible. Visitors would continue to encounter on-leash dog walkers on the two main trails at Sweeney Ridge and dog walkers would be allowed at Cattle Hill once that site transfers to the NPS. Some visitors may prefer recreating in these areas without the presence of dogs. However, visitors would have the opportunity to experience the park without the presence of dogs along all the other trails at Sweeney Ridge, beyond the Nike Site and the Portola Discovery Site. Visitation by this user group would likely remain the same.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be issued for Sweeney Ridge/Cattle Hill, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Sweeney Ridge/Cattle Hill, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. There is no known project or action that has had, is currently having, or will have effects on visitor use and experience in the vicinity of this park site.

SWEENEY RIDGE/CATTLE HILL PREFERRED ALTERNATIVE F CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	On-leash dog walking would be available on trails at both sites	N/A
Negligible impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	On-leash dog walking would be available on some trails; most trails would be closed to dog walking	N/A

N/A = not applicable.

Rancho Corral de Tierra

Rancho Corral de Tierra was transferred to the NPS in December 2011 from the Peninsula Open Space Trust, who purchased the parcel using grants and the support of private donors. In 2005, Congress passed federal legislation to add Rancho Corral de Tierra to the GGNRA, allowing for additional federal funds and enabling the property to be opened to the public (NPS 2013d). Since the transfer of Rancho Corral de Tierra to NPS in 2011, the property has been managed in accordance with 36 CFR 2.15, including 36 CFR 2.15(a)(2), which requires that all pets be restrained on a leash not exceeding six feet in length. The no-action alternative allows for on-leash dog walking in the entire Rancho Corral de Tierra site, in accordance with 36 CFR 2.15. Under current regulations, off-leash or voice control dog walking is not allowed at Rancho Corral de Tierra. Off-leash dog walking was not permitted before the transfer of Rancho Corral de Tierra to the NPS in 2011, but off-leash restrictions were not well enforced and noncompliance at the site was high. Although the no-action alternative represents current management, it may result in adverse impacts to visitors who prefer to have dogs off-leash when compared to the previous management and enforcement. These adverse impacts resulting from the transfer of the site to NPS for visitors who prefer dogs off leash are considered in the cumulative impacts section below, which considers previous actions such as visitor uses prior to NPS assuming ownership.

Alternative A: No Action. The entire Rancho Corral de Tierra site, approximately 3,800 acres, is available for on-leash dog walking, while off-leash or voice control dog walking is not allowed. However, of the total 3,800 acres, visitors typically follow trails, and currently approximately 16.2 miles of trails are available for on-leash dog walking. Rancho Corral de Tierra receives low to moderate visitor use by local hikers, runners, bicyclists, and equestrians. Staff regularly working at Rancho characterize use by dog walkers as low to moderate, and compliance with the leash law is generally low. Between 2012 and 2016, a total of 12 dog-related incidents were recorded. This included 10 leash law violations (table 30). No data was recorded prior to 2012.

There would be no direct impact on visitors who would prefer to walk dogs at the park under the no-action alternative (which does not include cumulative impacts). Visitors would continue to use the area for exercising with their pets at the site. Some visitors would continue to be noncompliant with the leash restrictions. Visitation by this user group would likely remain the same at this site.

Direct impacts on visitors who would prefer not to have dog walking at the park site would be long-term, minor and adverse. Visitors would continue to encounter on-leash and off-leash dogs, although the current on-leash regulation would be enforced, which could reduce noncompliance. Visitors would not be able to have a no-dog experience at this park site. Visitation by this user group would have the potential to decrease, stay the same, or, in accordance with its new status as a national park system unit, increase, however, visitation patterns as a new national park system unit have not yet been formalized. Under alternative A, no permit system exists for dog walking. At Rancho Corral de Tierra, use by commercial

dog walking is considered low. The impacts from commercial dog walkers to visitor experience are similar to the direct impacts discussed above for visitors who would prefer to walk dogs at the park and negligible for visitors who would prefer not to have dog walking at this park site.

Cumulative Impacts. Projects and actions in and near Rancho were considered for the cumulative impacts analysis (appendix K). The transfer of Rancho Corral de Tierra to NPS offers opportunities and experiences to the park visitors, including ranger led walks and improved trails, resulting in benefits for visitor experience at this park site. Since the site has been transferred to the NPS, general maintenance and protection of the site and park resources have been occurring. For example, long-term parkwide projects such as trail rehabilitation performed by NPS maintenance staff and park stewardship programs provide improvements and enhancements that would benefit the aesthetics of the area and the visitor experience. However, some impacts may remain from prior management and use patterns, including from unregulated off-leash dog walking.

The addition of park programs and site improvements would benefit all visitors at Rancho Corral de Tierra; however, visitors who prefer dogs would be adversely impacted because the off-leash dog walking that occurred prior to acquisition by NPS would no longer occur. When the impacts associated with these projects are added to the direct impacts (for those who prefer dogs) and the long-term, minor, adverse impacts (for those who do not prefer dogs) associated with alternative A of the dog management plan, cumulative impacts would be long-term, moderate to major for visitors who would prefer to walk dogs at Rancho Corral de Tierra and negligible for visitors who would prefer not to have dog walking at the site.

RANCHO CORRAL DE TIERRA ALTERNATIVE A CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
No impact for visitors who would prefer to walk dogs at the park	On-leash dog walking would continue throughout the site	Long-term, moderate to major adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Long-term, minor adverse impacts for visitors who would prefer not to have dog walking at the park	Visitors would still encounter dogs throughout the site.	Negligible cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative B: NPS Leash Regulation. On-leash dog walking would be allowed on designated trails in two areas near Montara and El Granada. A total of approximately 6.5 miles of trails would be available for on-leash dog walking.

Impacts on visitors who would prefer to walk dogs at the park would be long-term, moderate, and adverse, because the trails available for dog walking would be reduced by an estimated 9.7 miles. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash. Some visitors in this user group may find a different park to exercise their dogs off leash. As a result, visitation by local residents may decrease slightly in this area.

Impacts on visitors who would prefer not to have dog walking at Rancho Corral de Tierra would be beneficial. Visitors would still encounter on-leash dogs on trails in the two areas designated for dog walking at this site; however, all other trails at the site, outside of the two areas open for dog walking, would provide a no-dog experience. Visitors would be much less likely to encounter off-leash dogs. Visitation by this user group would have the potential to increase.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs on leash per person with no permit required. Since commercial dog walking is not common at

Rancho Corral de Tierra, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Rancho Corral de Tierra considered for the cumulative impacts analysis would be the same as those described under alternative A. The addition of park programs and site improvements would benefit all visitors at Rancho Corral de Tierra; however, visitors who prefer dogs would be adversely impacted because the off-leash dog walking that occurred prior to acquisition by NPS would no longer occur. When the impacts associated with these projects are added to the long-term moderate adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative B of the dog management plan, cumulative impacts would be long-term, moderate to major, and adverse for visitors who would prefer to walk dogs at Rancho Corral de Tierra and beneficial for visitors who would prefer not to have dog walking at the site.

RANCHO CORRAL DE TIERRA ALTERNATIVE B CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate adverse impacts for visitors who would prefer to walk dogs at the park	On-leash dog walking would be available at the site; no off-leash dog walking would be allowed	Long-term moderate to major adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dogs would be required to be on leash on designated trails. No-dog experience available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative C: Emphasis on Multiple Use – Balanced by County. Under alternative C dog walking under voice and site control would be allowed in a VSCA that is approximately 1.4 acre established between Le Conte and Tamarind Street, across the street from the Farallone View School. On-leash dog walking would be allowed on designated trails in the two areas open to dog walking near Montara and El Granada. A total of approximately 6.5 miles of trails would be available for on-leash dog walking.

Impacts on visitors who would prefer to walk dogs at the park would be long-term, minor, and adverse. The approximately 1.4 acre VSCA would allow dog walkers to have an area to allow dogs off leash. Impacts would be adverse because the area for off-leash dog walking would be reduced to 1.4 acres and the area available for dog walking on trails would be reduced by 9.7 miles and a leash would be required. Visitors would have the option of taking dogs to the VSCA or walking on the on-leash trails. Dogs that do not receive enough exercise or become more difficult to control when restrained by a leash would still have the opportunity to exercise under voice and sight control within the VSCA. Visitation by this user group would likely decrease or remain the same.

Impacts on visitors who would prefer not to have dog walking at this park site would be negligible. Although a VSCA would be established at the site and trails would remain available for on-leash dog walking, trails outside the areas open to dog walking would provide a substantial no-dog experience. The VSCA could be easily avoided by this user group. Visitation by this group would likely remain the same.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Rancho is not one of the park sites where permits to walk more than three dogs would be allowed. Since commercial dog walking activity is not common at this site, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Rancho Corral de Tierra considered for the cumulative impacts analysis would be the same as those described under alternative A. The addition of park programs and site improvements would benefit all visitors at Rancho Corral de Tierra; however, visitors who prefer dogs would be adversely impacted because the off-leash dog walking that occurred prior to acquisition by NPS would no longer occur. When the impacts associated with these projects are added to the long-term minor adverse impacts (for those who prefer dogs) and negligible impacts (for those who do not prefer dogs) associated with alternative C of the dog management plan, cumulative impacts would be long-term, moderate, and adverse for visitors who would prefer to walk dogs at Rancho Corral de Tierra and beneficial for visitors who would prefer not to have dog walking at the site.

RANCHO CORRAL DE TIERRA ALTERNATIVE C CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term, minor, adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice and sight control would be available in a newly established VSCA and on-leash dog walking would be allowed on trails within areas open to dog walking near Montara and El Granada	Long-term, moderate, adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Negligible impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	A no-dog experience would be available on trails outside of the designated dog walking areas	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, on-leash dog walking would be allowed on the two existing San Mateo County trails, Old San Pedro Mountain Road and the Farallon Cutoff in Montara, a total of approximately 1.1 miles.

Impacts on visitors who would prefer to walk dogs at the park would be long-term, moderate to major, and adverse. The area available for dog walking would be reduced by 15.1 miles of trails. In addition dog walking would not be permitted off-leash. Impacts would be moderate to major because visitors may not feel there is an adequate area to exercise and socialize their dogs. Limiting dog walking areas would reduce these visitors’ enjoyment of this site. Visitation by this user group has the potential to decrease.

Impacts on visitors who would prefer not to have dog walking at Rancho Corral de Tierra would be beneficial. Visitors would still encounter on-leash dogs on two trails at this site; however, the rest of the trails at the site would provide a no-dog experience. Visitors would no longer encounter off-leash dogs. Visitation by this user group would have the potential to increase.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D. Private dog walkers would be allowed up to three dogs. Since commercial dog walking is not common at Rancho Corral de Tierra it is likely that prohibiting commercial dog walking from this site would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Rancho Corral de Tierra considered for the cumulative impacts analysis would be the same as those described under alternative A. The addition of park programs and site improvements would benefit all visitors at Rancho Corral de Tierra; however, visitors who prefer dogs would be adversely impacted because the off-leash dog walking that occurred prior to acquisition by NPS would no longer occur. When the impacts associated with these projects are added to the long-term moderate to major adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative D of the dog management plan,

cumulative impacts would be long-term, moderate to major, and adverse for visitors who would prefer to walk dogs at Rancho Corral de Tierra and beneficial for visitors who would prefer not to have dog walking at the site.

RANCHO CORRAL DE TIERRA ALTERNATIVE D CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term moderate to major adverse impacts for visitors who would prefer to walk dogs at the park	Visitors would have a limited area for on-leash dog walking	Long-term moderate to major adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dog walking would be required on leash; there would be a substantial number of trails that would provide a no-dog experience	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative E: Most Dog Walking Access / Most Management Intensive. Alternative E would have the same dog walking restrictions as alternative C and impacts to visitor use and experience would be the same: long-term, minor, and adverse for visitors who prefer dogs at the park and negligible for visitors who do not prefer dogs at the park.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, Rancho is not one of the sites where permits would be issued, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking activity is not common at this site, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Cumulative impacts to visitor use and experience under alternative E would be the same as alternative C: long-term moderate adverse for visitors who prefer dogs at the park and beneficial for visitors who do not prefer dogs at the park.

RANCHO CORRAL DE TIERRA ALTERNATIVE E CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	Dog walking under voice and sight control would be available in a newly established VSCA and on-leash dog walking would be allowed on trails within areas open to dog walking near Montara and El Granada	Long-term moderate adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Negligible impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	A no-dog experience would be available on trails outside of the designated dog walking areas	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

Alternative F: Preferred Alternative. The preferred alternative would allow on-leash dog walking for up to three dogs on designated trails in three areas, Montara, El Granada, and Moss Beach. Trails in Montara include Old San Pedro Mountain Road, LeConte Trail, Corona Pedro Trail, and Farallon Trail (Cutoff) from the park boundary in the west to the intersection with Corona Pedro Trail, and Farallon

Cutoff from the park boundary in the west to the intersection with Corona Pedro Trail. Dogs would not be allowed east on the Farallon Trail beyond the Corona Pedro Trail to provide a dog-free trail experience that later can connect to the Alta Vista trail. On-leash trails permitted in the El Granada area include the Denniston Ridge Trail between San Carlos Trail and intersection with the Clipper Ridge Trail, the Clipper Ridge Trail, the Memorial Loop, Almeria Trail, and the San Carlos Trail. On-leash dogs would be allowed on the trails in the Moss Beach area on the Vincente Ridge and Ranchette Trails. A total of approximately 8.9 miles of trails would be available for on-leash dog walking. A VSCA would be established within the El Granada area. The 3.0 acre VSCA would be located at Flattop Mountain and can be accessed via the on-leash Almeria Trail. Impacts on visitors who would prefer to walk dogs at the park would be long-term, minor, and adverse, because the on-leash trails available for dog walking would be reduced by an estimated 7.3 miles. Impacts would only be minor because a 3 acre VSCA would be established in the El Granada area. Dog owners may also feel that their pets are not receiving adequate exercise when restrained on a 6-foot leash throughout most of the site. Some visitors in this user group may find a different park to exercise their dogs off leash. As a result, visitation by local residents may decrease slightly in this area.

For visitors who would prefer not to have dog walking at Rancho Corral de Tierra there would be beneficial impacts. Visitors would still encounter on-leash dogs on trails in the three areas designated for dog walking at this site; however, all trails outside of the three areas open to dog walking would be available for a no-dog experience. The VSCA would be located at Flattop Mountain and can be easily avoided by visitors who do not want to encounter dogs. Visitors would much less likely to encounter off-leash dogs. Visitation by this user group would have the potential to increase.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, Rancho is not one of the areas where permits would be issued, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at the Rancho Corral de Tierra, it is likely that commercial dog walking would have negligible impacts on both visitors who would prefer to walk dogs at the park and visitors who would prefer not to have dog walking at the park.

Cumulative Impacts. Projects and actions in and near Rancho were considered for the cumulative impacts analysis (appendix K). The transfer of Rancho Corral de Tierra to NPS offers opportunities and experiences to the park visitors, including ranger led walks and improved trails, resulting in benefits for visitor experience at this park site. Since the site has been transferred to the NPS, general maintenance and protection of the site and park resources have been occurring. For example, long-term parkwide projects such as trail rehabilitation performed by NPS maintenance staff and park stewardship programs provide improvements and enhancements that would benefit the aesthetics of the area and the visitor experience. However, some impacts may remain from prior management and use patterns, including from unregulated off-leash dog walking.

The addition of park programs and site improvements would benefit all visitors at Rancho Corral de Tierra; however, visitors who prefer dogs would be adversely impacted because the off-leash dog walking that occurred prior to acquisition by NPS would no longer occur. When the impacts associated with these projects are added to the long-term moderate adverse impacts (for those who prefer dogs) and beneficial impacts (for those who do not prefer dogs) associated with alternative F of the dog management plan, cumulative impacts would be long-term, moderate to major, and adverse for visitors who would prefer to walk dogs at Rancho Corral de Tierra and beneficial for visitors who would prefer not to have dog walking at the site.

RANCHO CORRAL DE TIERRA PREFERRED ALTERNATIVE F CONCLUSION TABLE

Visitor Use and Experience Impacts	Rationale	Cumulative Impacts
Long-term minor adverse impacts for visitors who would prefer to walk dogs at the park	On-leash dog walking would be available at the site; off-leash dog walking would be allowed on a 3-acre site	Long-term moderate to major adverse cumulative impacts for visitors who would prefer to walk dogs at the park
Beneficial impacts for visitors who would prefer not to have dog walking at the park, assuming compliance	Dogs would be required to be on leash on designated trails; no-dog experience available	Beneficial cumulative impacts for visitors who would prefer not to have dog walking at the park

PARK OPERATIONS**GUIDING POLICIES AND REGULATIONS**

“Park operations” refers to the current staff, including volunteers, required to adequately protect and preserve GGNRA resources and provide for a safe and effective visitor experience. This topic also includes the operating budget necessary to conduct GGNRA operations. NPS, and by extension GGNRA, is subject to the Congressional appropriations process each year, and as such cannot guarantee full or partial funding for all park plans and initiatives. The costs below are general estimates. GGNRA anticipates that Congressional funding levels will vary over the life of the plan. Should Congressional funding levels be substantially reduced, the NPS will evaluate whether any changes or adjustments in the plan are needed. The NPS will undertake additional public outreach and planning as appropriate.

As a unit of the national park system, GGNRA is charged with the conservation and preservation of public lands and determination of their public use in accordance with federal law and regulations. The GMP (NPS 2014), and more detailed implementation plans continue to serve as the basis for the park’s planning and preservation decisions. The 1980 GMP has been replaced and updated by the 2014 GMP.

NPS *Management Policies 2006* states that the NPS “will monitor new or changing patterns of use or trends in recreational activities and assess their potential impacts on park resources” and “ensure that recreational uses and activities in the park are consistent with its authorizing legislation or proclamation and do not cause unacceptable impacts on park resources or values” (NPS 2006a, 101).

STUDY AREA

The geographic study area for park operations is all of the GGNRA sites under consideration for the draft plan/SEIS. There are 22 individual sites relevant to this project, which have been described in detail in chapter 3.

DURATION OF IMPACT

Duration describes the length of time an effect would occur, either short term or long term. Short-term impacts are defined as 1–5 years. Long-term impacts to park operations are described as those persisting for the life of the plan/EIS (the next 20 years). After the publication of the rule, a preliminary period of public education would occur prior to implementation of the proposed action, followed by the testing of a monitoring-based management program. At the beginning of the education and enforcement period, short-term impacts on park operations would occur, regardless of the alternative chosen and would be similar to the current conditions but with increasing hiring of additional staff for enforcement, monitoring, outreach education and maintenance. The impacts on park operations would increase during the initial implementation of the plan; the initial period of greater impacts is expected to last up to 2 years.

Following the education period, monitoring for compliance would begin, and it is expected that compliance with the dog walking regulations and associated adverse impacts on existing staff would improve gradually over approximately 4 to 5 years.

ASSESSMENT METHODOLOGY

Impacts on park operations and management are assessed with regard to staffing and annual operating budget.

Elements of the alternatives could change the park's existing staff requirements. The evaluation considers whether or not additional workload would be added or contracted services would be required in order to accomplish a larger workload on an ongoing basis. This includes changes that may occur in all divisions of the park, including those detailed below.

Law Enforcement. Law enforcement staff (NPS rangers and the U.S. Park Police) is responsible for providing law enforcement and emergency services, including resolving conflicts between dog walkers and other user groups and issuing written citations and verbal or written warnings to dog walkers not complying with regulations. In addition to enforcement, other law enforcement duties include preparing incident reports and citations; conducting investigations, dispatching, and records management; providing court testimony related to criminal cases, including dog violations; conducting search and rescue, including cliff rescues; providing emergency medical services and wildland fire fighting; and educating the public on safety, resource protection, and other regulatory requirements as a means to garner understanding of park policies and regulations and to deter illegal and unsafe activities. Dog management enforcement duties are currently less than 5 percent of the park's public safety emphasis related to overall crime prevention, criminal apprehension, and prosecutorial responsibilities, but that percentage may change following implementation of a new regulation. A local file of dog management data based on field contacts was developed to provide law enforcement personnel with information regarding violation contacts, including warnings and citations issued. The local file is compared to the federal district court log record of open cases related to dog violations to identify repeat offenders who have failed to pay fines or failed to appear in court. The GGNRA is in the process of developing warrant service for those individuals cited for pet violations who have repeatedly failed to appear before the federal court. The U.S. Magistrate 2010 fine schedule now includes progressive fines for first, second, and third offenses relative to 36 CFR 2.15.

Law enforcement also includes administrative functions related to dog management. Record management and responses to various park administrative needs such as *Freedom of Information Act* requests, data collection, annual reporting, and statistical records are also addressed by law enforcement staff. In addition, internal investigations and determinations in response to visitor phoned and written complaints regarding law enforcement contacts are conducted. Law enforcement also develops and provides training for patrol staff on dog management policies, as well as lifeguard patrols at Stinson and Ocean beaches during peak visitation periods. Law enforcement staff members review and comment on a variety of public use management functions, such as educational and outreach materials, regulatory signs, and wayside exhibits developed by the park for the dog management program, to ensure compliance with federal and state regulations and the local GGNRA Compendium.

Interpretation and Visitor Services, Communications, Planning, Business Management, and Superintendent's Office (Administration). The park currently incurs substantial administrative and planning expenses related to dog management. The administrative staff oversees the dog management planning process. They coordinate responses to and, wherever possible, resolution of all media and public inquiries and complaints involving dog management. The administrative staff also interact with other park divisions regarding park projects or actions with the potential to affect areas used by dog walkers. The

staff maintains and updates the park's web site with site-specific dog walking information and manages a dog management information line that provides the current status of the dog management processes and allows visitors to leave messages (NPS Communications staff members respond to visitor messages daily during business hours). NPS staff members from division groups such as interpretation and visitor services, natural resources, and communications cooperatively coordinate outreach and education, including developing products such as signs, guides/brochures explaining dog walking at GGNRA, and web site information, to educate visitors on dog walking policies. Planning staff are involved in coordinating the development and implementation of the final monitoring-based management program in coordination with the natural resource staff and would oversee that program after implementation of the rule. Staff members host public workshops, formulate media outreach on the dog management program, and respond and provide information to congressional representatives and NPS regional and Washington, D.C., staff on the status of the park's dog management policies and programs. The NPS Special Park Uses Group is responsible for the development and management of the permit system for walking more than three dogs for individual and commercial dog walkers should a permit program be implemented as part of dog management at GGNRA.

Natural Resource Management. Natural resource staff members conduct many ongoing planning efforts related to dog management. Some of their tasks include ensuring that habitats are protected from recreational uses, participating with law enforcement in handling complaints, preparing outreach material (i.e., maps, brochures, web site information), and reviewing signs. All of these tasks are conducted either fully or in part as a result of dog use, impacts, or restrictions. In addition, natural resource staff members conduct and oversee inventory and monitoring efforts, analyze resulting data, and produce reports summarizing natural resource monitoring efforts. The staff hydrologist is involved with erosion issues associated with dogs, and staff ecologists are responsible for identifying and protecting restoration areas and ensuring that protective fencing is in place. A shorebird docent program for Ocean Beach and Crissy Field adds coordination and training time to natural resource staff schedules and necessitates scheduling of volunteer hours for volunteers conducting citizen science projects, monitoring, and environmental stewardship activities.

Maintenance. Maintenance requirements related to dog management include collection of garbage containing dog waste and the repair and maintenance of park furnishings (i.e., trash receptacles) that have been corroded due to dog urine, use by visitors, and exposure to the weather elements of a coastal ecosystem (marine air, sea fog, and rain). Maintenance workers construct, install and repair signs informing the public of dog management policies throughout the park. Maintenance staff also construct and install protective fencing for the WPA as well as other sensitive resource areas. Maintenance staff would be responsible for the construction and installation of boundary demarcations along VSCA boundaries when and if VSCAs are established for dog management. Due to their high visibility in the field, maintenance staff members frequently participate in public education by responding to questions from the public on the dog management rules.

The impacts of the proposed alternatives on the park's annual operating budget and funding sources are evaluated for each alternative. The evaluation considers the financial requirements for each alternative and the availability of existing or new funding sources to meet additional operating and capital costs.

Short-term impacts would occur during the initial public education period and the initiation of law enforcement, monitoring and maintenance activities for the new regulation. Long-term impacts would include the permanent effects on park operations from the alternatives after the initial public education and introductory law enforcement periods have passed.

IMPACT THRESHOLDS

Park operation impacts were determined by examining the potential effects of dog walking activities on park operations within a park site. The intensity of each adverse impact is judged as having a minor, moderate, or major effect. A beneficial impact would be a positive change in park operations. Negligible impacts are neither adverse nor beneficial, nor long-term or short-term. The following impact thresholds were established to describe the relative changes in park operations under the various alternatives being considered:

- Beneficial* A beneficial impact is a beneficial change from the current condition and is a relative indicator of progress compared to the no-action alternative. In general, a beneficial impact would include reduced staffing needs and financial balances between operating costs and revenue sources.
- Negligible* There would be no discernible change in park operations or financial balance between revenue sources and operating costs.
- Adverse* **Minor.** There would be slight but detectable changes in park operations requiring slight changes or reallocations in current staffing arrangements or existing funding streams.
- Moderate.** There would be readily apparent changes that would require adjustments in park operations, such as administrative reorganization, or a financial imbalance between available funding streams and annual operating costs.
- Major.** There would be substantial changes in park operations, requiring new administrative structures, or a financial imbalance between available funding streams and annual operating costs.

ALTERNATIVE A: NO ACTION

Under the no-action alternative, dog management related to park operations would continue as currently conducted throughout the park. The park would continue to post or update signs with current dog walking regulations and maintain a list of all areas available or restricted to dogs on the GGNRA web site. Park staff would continue to maintain a dog management information line and continue to provide information on the current regulatory status of dog walking policies, particularly regarding the seasonal leash restrictions at Ocean Beach and Crissy Field.

Visitors in the park find dog walking regulations at GGNRA to be confusing, which has led to difficulty enforcing the regulations. The local file that tracks prior law enforcement contacts and warnings related to dog management substantiates that although some local residents or returning visitors claim to be confused, they do know the regulations but continue to refuse to comply because they disagree with the established regulations. This extends the duration of the law enforcement contact and sometimes generates an escalated law enforcement action (i.e., citation or arrest). Under alternative A, the regulations would not change and because of that the confusion would likely decrease. Law enforcement responsibilities include reducing harm to natural and cultural resources and minimizing visitor conflicts to ultimately create a safe park environment. These responsibilities would continue under alternative A and would include the minimization of conflicts between dog walkers and other visitors; citations would be issued when applicable. Failure to pay fines or appear in court may result in warrants being issued. Visitation is predicted to continue to increase over the next 20 years, and it is likely that the number of

dog walking noncompliance citations and visitor conflicts would continue to increase, even under the no-action alternative, resulting in increasing labor for law enforcement officials related to dog management.

The natural resource staff performs numerous tasks related to dog management. The hydrologist monitors water quality regularly in water bodies throughout GGNRA and documents water quality and soil erosion issues associated with dog activities. In addition to regular tasks, the GIS specialist provides mapping needs associated with dog management planning for brochures, the web site, etc. The Crissy Field ecologist incurs time spent on dog management because Crissy Field is a high dog use area with many infractions of seasonal restrictions and other dog management regulations. Time is spent working on keeping dogs from restoration areas, ensuring that fencing is in place and repaired, coordinating regular water quality monitoring, and tracking dog complaints for the Crissy Field area. The natural resource management staff coordinates with other NPS staff (administration, maintenance, and law enforcement) so that current dog management policies are available on outreach materials (signs, brochures, etc.) and that fencing and enforcement related to dog use/impacts and restrictions are in place.

Under the no-action alternative, current maintenance responsibilities would continue, including removal of dog waste, the repair/replacement of vandalized or outdated signs, repair or addition of fences required related to dog walking, and response to questions from the public. Annual budget costs would reflect regular budgetary staffing. If dog walkers continue to increase over the next 20 years, maintenance requirements would likely increase under this alternative.

Current Staffing and Non-Personnel Costs (all Divisions). Table 34 provides the total estimated costs associated with personnel and labor currently expended for dog management. Personnel costs include labor related to resource monitoring, education and communications, enforcement, business management, record keeping and data management, maintenance, and contract labor. Non-personnel costs may include equipment, vehicles, computers, and other support costs necessary to perform duties associated with dog management.

TABLE 34. CURRENT ESTIMATED OPERATIONAL COSTS (ALTERNATIVE A)

Costs	Alternative A: No Action
Business Management Division	—
Interpretation Division	\$21,676
Maintenance Division	\$120,000
Natural Resources Division	\$87,435
Project Management/Administration	\$98,476
Communications Division	\$80,693
U.S. Park Police	\$135,200
Visitor and Resource Protection Division	\$152,094
Total Personnel Costs (all Divisions)	\$695,574
Total Non-personnel Costs (all Divisions)	\$69,557
Estimated Total Cost	\$765,131

Overall, there would be long-term minor to moderate adverse impacts on park operations at GGNRA from dog management activities under alternative A.

Cumulative Impacts. It is likely that dog walking in GGNRA would continue to increase over the next 20 years, which would ultimately increase the amount of time and money spent on dog management at the park. Park staff, including maintenance staff, NPS rangers, administrative staff, and law enforcement officials, would continue to be redirected from their other daily work assignments and other protection concerns to deal with dog management issues such as vandalized signs, visitor conflicts, and visitor complaints, resulting in an inability to achieve the overall goal of professional resource and visitor protection consistent with the NPS mission. The amount of time spent on dog management would incrementally decrease the amount of time and money available for other projects and safety efforts throughout the park.

In addition to dog management effects on park operations, there are other projects that would likely increase staffing and budget demands (appendix K). Numerous rehabilitation and improvement projects throughout the park also affect park operations due to management, staffing, and budgeting requirements and the need to coordinate with entities that may be managing those efforts. For example, the proposed extension of the Municipal Railway's Historic Streetcar Service would continue the F-line three blocks west to San Francisco Maritime National Historic Park and then on through the Fort Mason Tunnel to the Fort Mason Center at GGNRA (NPS 2010h, 1). With completion of the Doyle Drive replacement project to replace the 73-year-old Doyle Drive, which runs through area B lands of the Presidio, a tunnel tops project is being initiated by the Presidio Trust and will increase visitation from the Presidio Main Post to Crissy Field in the vicinity of the Crissy Marsh and the Fort Mason multi-use path with viaducts. Additionally, a Crissy Field rehabilitation project will be initiated in 2017 to evaluate how visitors use Crissy Field, review natural and cultural restoration goals, and determine interpretive and maintenance needs.

The GGNRA interim compendium amendment would require commercial dog walkers to obtain a permit to walk more than three dogs at GGNRA sites, with a limit of six dogs. This would have both beneficial and adverse impacts on park operations. Commercial dog walking frequently occurs at the following park areas: Alta Trail/Orchard Fire Road/Pacheco Fire Road, Upper and Lower Fort Mason, Crissy Field, and Fort Funston. A decrease in the number of commercial dog walkers at these GGNRA sites would reduce maintenance and operational needs. However, there would be adverse impacts on park operations from the need for increased enforcement of the proposed interim compendium and overall administrative management of the associated dog walking activity and complaints.

As a result of acts of terrorism perpetrated against the United States on September 11, 2001, the NPS and its conservation and preservation mission have become a part of Homeland Security's anti-terrorism enforcement. This has increased demand for police and other public safety services to provide protection of sites identified as critical infrastructure and American icons against terrorism. At GGNRA the law enforcement staff, working with other local law enforcement agencies, provides heightened security and critical incident response to the Golden Gate Bridge; elevated threat levels require closures in and around Fort Point, the Coastal Trail, and Fort Baker. These closures may preclude dog walking in those areas, and additional staff to enforce these security closures would also address dog walking violations resulting from the closures; however, redirecting law enforcement staff to closure and terrorism threat duties also results in a reduction of the time law enforcement personnel have for other aspects of enforcement (e.g., patrol and dog management regulations). These demands have created an additional workload for the park's law enforcement program. In general, based on recent trends park operation costs would be expected to increase.

The long-term minor to moderate adverse impacts on park operations from dog walking at GGNRA under alternative A were considered together with the effects of the projects mentioned above. The adverse impacts on park operations from the rehabilitation and improvement projects and increased security activities, combined with the negligible impacts from interim permitting program, and the long-term

minor to moderate adverse impacts on park operations from alternative A would result in long-term minor to moderate adverse impacts cumulative impacts on park operations.

PARK OPERATIONS IMPACTS FOR ALL SITES ALTERNATIVE A CONCLUSION TABLE

Park Operations Impacts	Rationale	Cumulative Impacts
Long-term minor to moderate adverse impacts	Additional park operations staff and labor efforts would be needed to accomplish tasks related to dog management in addition to other job responsibilities	Long-term minor to moderate adverse cumulative impacts

PARK OPERATIONS IMPACTS COMMON TO ACTION ALTERNATIVES B, C, D, AND E

Crissy Field. There would be no impacts on park operations as a result of the two different definitions of the Crissy Field WPA [the 36 CFR 7.97(d) definition for alternative A (Warming Hut to approximately 700 feet east of the former Coast Guard Station pier) and the Warming Hut to approximately 900 feet east of the former Coast Guard Station pier definition for alternatives B–F]. Even though the WPA would be expanded for alternatives B–F, this change would not affect park operations. More explanation of these two definitions can be found in the “Current Regulations and Policies” section of chapter 2.

Short-term Impacts—Staffing and Non-Personnel Costs (all Divisions)

To implement the dog management plan, the NPS would hire part-time and seasonal employees and full-time permanent employees in addition to the current staff at the park. Additional personnel would need to be hired in several divisions under all alternatives. Table 35 provides the total estimated costs associated with personnel and labor (including new employees) to complete tasks necessary for implementation of the dog management plan. Personnel costs include labor related to compliance monitoring, outreach education and communications, enforcement, record keeping and data management, maintenance, business management, natural resources, and contract labor. Non-personnel costs may include equipment, vehicles, computers, and other support costs necessary to perform duties associated with each alternative and are also provided. Overall, there are some differences in total costs for each action alternative due to the efforts associated with enforcement, outreach education, business management, maintenance, monitoring, and the requirements of dog management under each alternative. The addition of new employees would create short-term moderate to major adverse impacts on the current park budget. Division budgets would also increase beyond the cost of new personnel to cover increases in current staff workloads and field and equipment costs, including vehicles, computers, and other support costs, creating short-term moderate to major adverse impacts on current division budgets. If new funding becomes available, impacts would be minimized.

Impacts to Park Operations are further analyzed by alternatives that propose no dogs, alternatives that propose dogs on a leash, and alternatives that propose a VSCA. This detailed analysis is presented in the remainder of this section.

TABLE 35. ESTIMATED OPERATIONAL TRANSITION COSTS (ALTERNATIVES B, C, D, AND E)

Costs	Alternative B: NPS Leash Regulation	Alternative C: Emphasis on Multiple Use – Balanced by County	Alternative D: Most Protective of Resource Protection and Visitor Safety	Alternative E: Most Dog Walking Access / Most Management Intensive
Business Management Division	—	\$78,000	—	\$78,000
Interpretation Division	\$133,435	\$158,459	\$230,373	\$158,459
Maintenance Division	\$141,675	\$178,976	\$141,676	\$178,976
Natural Resources Division	\$530,000	\$617,251	\$530,000	\$617,251
Project Management	\$98,476	\$103,476	\$103,475	\$103,476
Communications Division	\$431,665	\$344,459	\$431,665	\$344,459
U.S. Park Police	\$235,144	\$335,144	\$235,144	\$335,144
Visitor and Resource Protection Division	\$422,000	\$548,741	\$422,000	\$806,546
Total Personnel Costs (all Divisions)	\$1,992,395	\$2,364,506	\$2,094,333	\$2,622,311
Total Non-personnel Costs (all Divisions)	\$199,240	\$227,670	\$209,433	\$253,451
Estimated Total Cost*	\$2,191,635	\$2,592,176	\$2,303,766	\$2,875,762

* Total costs are short-term costs, assuming compliance, for a transition year and include existing staff. Costs could continue into the long-term if noncompliance occurs. One-time costs for signage, fencing, gates, and other physical improvements are expected to range from \$1M to \$2M during the transition years.

Short-Term Impacts—Concentrated Education and Law Enforcement

To educate park visitors on the new dog walking regulations, the park would hold public meetings and media interviews, update information on the park web site, place ads in the local newspapers and dog walking magazines, develop new signs, and develop and distribute dog walking guides/brochures with updated maps that explain the new regulations. Although local organized dog walking groups would be asked to assist the park in disseminating the new dog walking regulatory information, labor spent on dog-related activities by current park staff would substantially increase during this period and one new employee would be hired in the interpretation division to work specifically on dog-related activities. Short-term moderate to major adverse impacts on park operations would result from the actions mentioned above.

Additional labor, including an increase in NPS law enforcement staffing, would be required to successfully implement new dog management regulations. It is likely that staff would spend more time in

areas where historically there have been a high number of pet-related case reports, such as Fort Funston, Crissy Field, and Ocean Beach. After the initial education period, law enforcement staff members would increase their presence throughout the park, resulting in a concentration of enforcement as necessary. During this time, law enforcement staff members would increase contact with park visitors walking dogs in areas closed to dogs and visitors who have their dogs off leash outside designated VSCAs, and would issue warnings and/or citations to visitors not in compliance with the new regulations. In addition to the current staff, eight additional staff members would be hired for these responsibilities: two employees would be hired for law enforcement and six employees would be hired for monitoring. Data entry into the law enforcement database file on dog violations and records management of incident reports would increase. This is currently assigned to rangers or officers on light duty; however, the park would need to hire a new records assistant to maintain and manage incident reports. If violators challenge citations and demand trials in the U.S. District Court, an increase in workload in prosecutorial efforts for law enforcement personnel, U.S. Attorney's Office, and Department of the Interior Solicitor's Office would occur. In addition, an increase in administrative response by the records management office and communications division to *Freedom of Information Act* and defendant discovery requests would occur. The number of phone calls, emails, and letters regarding pet policies and dog complaints is also expected to increase during the initial education and enforcement period, which would impact law enforcement and administrative staff time to process inquiries and complaints. An additional communications dispatcher would also be required to receive and organize responses by law enforcement staff to incidents, complaints, and emergencies. Regardless of the dog management policy adopted, the need for ongoing public education and enforcement would be strong. Visitor education expenses would be expected to remain constant or increase to ensure that the public understands the park's dog use regulations. During this period, park staff would be needed to continually monitor the sites, issue citations, resolve conflicts, and educate the public. Impacts on park operations would be short term, moderate to major, and adverse until transition to visitors complying with the new regulations.

Long-term Impacts from New Dog Walking Regulations

After the extended period of concentrated education law enforcement and monitoring has concluded, it is anticipated that compliance with the new leash regulations would improve. Over the next 20 years, the percentage of time required by park staff working on dog management-related activities would likely decline and become part of a routine. The number of citations and other tasks associated with citations would eventually decrease, as would the number of visitor conflicts, complaints, and phone calls. The need for regular monitoring of citations and case incident reports related to dog regulations would be reduced. Labor requirements, expenditures, and administrative tasks related to dog management would benefit from a more predictable schedule and budget than under current conditions. Therefore, impacts to park and division budgets would be long term, minor, and adverse for the life of the plan.

Additional long-term impacts for each park site are analyzed below.

Alternatives that Propose No Dogs

Short-term moderate to major adverse impacts on park operations would be expected at sites where current dog walking would change from allowing on-leash or voice control dog walking to prohibiting dog walking. Enforcing a "no dogs" regulation would require law enforcement documentation of violations in sites where dogs would be prohibited. Although visitors with dogs in prohibited areas would be clearly in violation of the regulation, staff would still be required to monitor the site and issue citations to noncompliant visitors. Violators would quickly learn the consequences of their actions and, over the long term, compliance would result in fewer infractions. Alternative B proposes 3 sites (of the 22) that would completely prohibit dog walking and alternative D, the most protective of resources, proposes 9 sites. None of the sites in alternatives C or E would prohibit dogs completely, and at sites where portions

of the areas would be closed, park visitors could obtain a GGNRA dog walking guides/brochures identifying nearby areas that allow the particular dog walking experience they are seeking. Initially, the number of citations could increase due to visitor disagreement with and resistance to the new dog walking regulations; however, as compliance increases in the short term, the number of citations and incident reports would decline. This would reflect a similar situation to the period after the initiation of the special regulation requiring a seasonal leash restriction at the Crissy Field WPA, where the most common incident at Crissy Field was having pets within the WPA (283 reported incidents) from 2008 through 2011 (table 20a). The number of phone calls, emails, and letters regarding pet policies, personal complaints, and dog-related incident complaints is also expected to decrease after the initial education and enforcement period, which would benefit the administrative staff time and could benefit the administrative staff budget by reducing the number of staff and/or staff labor hours necessary to track incidents and maintain records. During this initial period, park staff would be needed to monitor many of the park sites, issue warnings or citations and document law enforcement contacts, resolve conflicts, and educate the public. Impacts on park operations would be short term, moderate to major, and adverse until visitors comply with the new regulations. If park visitors do not comply with the new regulations, monitoring-based management strategies would be implemented as previously described. Following the outreach education and enforcement period, impacts to park operations would be long term, negligible to minor, and adverse.

Alternatives that Propose On-Leash Dog Walking

Park sites where dog walking activities would remain on leash under the new regulations generally provide less area in each site than under current conditions but would otherwise be consistent with current conditions. GGNRA dog walking brochures identifying nearby areas and GGNRA sites that allow dog walking under voice and sight control would be available for park visitors to allow them the option of relocating voice and sight control dog walking activities to another location. There are three sites (of the 22) where dog management would not change in alternative B, four in alternative C, two in alternative D, and two in alternative E. The sites proposed for on-leash dog walking generally have few documented dog-related incidents and the level of law enforcement needed under the new management regulations would not be expected to change over the long term, resulting in a long-term negligible impact on law enforcement. Sites where on-leash dog walking would continue but where current conditions include adverse impacts on law enforcement because of incidents, complaints, and citations resulting from noncompliance would be expected to improve after the initial education and enforcement period. On-leash dog walking at these sites would result in a gradual improvement for park operations, especially law enforcement staffing and budget. In the short term, there would be moderate to major adverse impacts as a result of a need for adequate staffing to manage education and outreach, respond to incidents, deliver citations, maintain records, and appear in court. This is because it is expected that potential visitor disagreement with and resistance to the new dog walking regulations would increase the number of case incident reports and citations related to dog walking at these sites. However, in the long term, as visitors learn to comply with new regulations, the labor and staffing efforts initially needed would decline.

Changing dog walking activities from “on leash or voice control” to “on leash” is proposed at nine sites for alternative B, 7 sites for alternative C, and 6 sites for alternative D, and 5 sites for alternative E. As discussed for other sites and dog management options above, the new on-leash restrictions for former “on leash or voice control” sites would result in an improvement on park operations (compared to current conditions) after the initial education and enforcement period, which would result in short-term moderate to major adverse impacts on staffing, labor, budgets, record maintenance, etc., since regulations would be enforceable. Though the number of citations may increase initially due to potential visitor disagreement with and resistance to the new dog walking regulations, in the long term the number of case incident reports and citations related to dog walking at these sites would decline, especially at historically problematic sites such as Crissy Field, Fort Funston, and Ocean Beach. From 2008 through 2011, there

were 283 incidents of dogs off leash in the Crissy Field WPA (table 20a) and there were 729 incidents of dogs off-leash in the Ocean Beach SPPA (table 25a). (Note: Citations specific to the Crissy Field WPA and the Ocean Beach SPPA for 2012–2016 are not available.) The monitoring-based management program, which would require monitoring of the sites, would also decrease the number of incident reports and citations. In the long-term, negligible to minor adverse impacts on park operations are expected at Ocean Beach south of Sloat Boulevard under alternatives B and E and north of Stairwell 21 under alternatives B and D; at the Crissy Field WPA under alternative E; and at the Marin Headlands Trails under alternatives C and E. The remaining park sites under the category “on leash or voice control to on leash” currently have low numbers of pet-related case reports; those sites would be expected to continue to have a low rate of incident reports and would not be problematic for GGNRA NPS staff, resulting in a negligible impact on park operations.

Portions of Fort Miley (alternatives C and E) and Homestead Valley (alternatives B, C, D, and E) would have on-leash dog walking where dog walking was previously allowed under voice control. No recent reports document pet-related incidents at either Homestead Valley or Fort Miley; on-leash dog walking at these sites is expected to result in negligible impacts on park operations in the long term, assuming continued compliance, as it is not expected that these sites would require additional targeted education or enforcement.

Alternatives that Propose VSCAs

VSCAs would be established at 7 sites under alternative C, 3 sites under alternative D, and 8 sites under alternative E. No VSCAs would exist under alternative B. The discussion of proposed VSCAs has been grouped by the existing conditions, visitor use, and compliance with existing regulations at each site. Currently, the existing condition at many sites is the 1979 Pet Policy (appendix A), which allows dog walking under voice control. Although this is the status quo, the park has no authority to enforce control since the existing conditions are the result of a policy and court order and is not a federal regulation (see chapter 2). The VSCAs described below have defined areas and specific guidelines.

VSCAs are proposed in alternatives C, D, or E, at sites currently open to voice control that have low numbers of dog-related citations and incident reports: Oakwood Valley (alternatives C and E), Muir Beach (alternative E), Rodeo Beach/South Rodeo Beach (alternatives C and E), and Baker Beach and Bluffs to Golden Gate Bridge (alternative E). Establishing VSCAs in these sites would be similar to current conditions; as a result, impacts on park operations for these sites would be negligible since it is not expected that VSCAs at any of these sites would result in substantial additional labor, staffing, record keeping/management, maintenance, etc.

VSCAs are also proposed for a number of sites currently allowing voice control where visitor use is high and a moderate to high number of dog-related incidents currently occur. Crissy Field and Fort Funston have VSCAs proposed in alternatives C, D, and E, and Ocean Beach has a VSCA proposed in alternatives C and E. In addition, Crissy Field and Fort Funston are high-use commercial dog walking areas. Impacts on park operations for these sites in alternatives C, D, and E or alternatives C and E (at Ocean Beach) would be short term, moderate to major, and adverse during the initial education and enforcement period because of a need for additional labor, staffing, record keeping/management, maintenance, etc. VSCAs at these sites could require continued additional law enforcement presence and maintenance because of the substantial, heavy visitor use and remaining potential for multiple-use conflicts. It is expected that over the long term, impacts on park operations would be minor to moderate and adverse because of the continued need for education and enforcement of the VSCA boundaries.

The only alternatives that would change a site from on-leash dog walking to provide one or more VSCAs are alternatives C, D, and E, at Upper and Lower Fort Mason. Visitor use is moderate at this site and there

have been anecdotal reports of commercial dog walking. At Fort Mason, there were 129 leash law violations, 6 dog bites/aggressive behavior citations, and 5 violations for pets in restricted areas from 2008 through 2011 (table 19a). Between 2012 and 2016, there were an additional 36 leash law violations, 2 dog bite citations, and 5 citations for dog walkers in closed areas (table 19b). Currently, park personnel monitor this site because visitors are uncertain whether or not dogs are required to be on leash. Since VSCAs proposed for this site would be defined and have specific use guidelines, impacts on park operations should be long-term, negligible to minor, and adverse for alternatives C, D, and E after the initial education and enforcement period because it is not expected that substantial additional staffing, labor, maintenances, etc., would be required. The initial education and enforcement period would result in short-term moderate to major adverse impacts on park operations (staffing, labor, etc.).

When VSCAs have unfenced boundaries delineated by signs, such as “crest of the dunes” at Rodeo Beach or north/south boundaries at Baker Beach and Fort Funston, short-term moderate to major adverse impacts on park operations would occur due to the initial need for education and enforcement. This would also occur in areas where a VSCA is directly adjacent to on-leash or no-dog areas, such as Ocean Beach or Fort Funston. It is expected that over the long term, impacts on park operations would be minor and adverse because of the continued need for education and enforcement of the VSCA boundaries.

If park visitors do not comply with the new regulations, the primary and/or secondary management responses of the monitoring-based management program would be implemented. During this period park staff would be needed to continually monitor the sites, issue citations, resolve conflicts, and educate the public. Impacts on park operations would be short term, moderate to major, and adverse until visitors begin to comply with the new regulations.

Commercial Dog Walking

Impacts on park operations would result from the implementation of the commercial dog walking regulations.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person. All dogs must be walked on leash and no permit would be required. Alternative B would have negligible impacts on park operations. Because permits would not be allocated under alternative B, no additional time would be needed by park staff to issue permits. Park staff would be needed to monitor and enforce the new regulations, including issuing warnings and citations for private and commercial dog walkers walking more than three dogs; however, this would be incorporated with daily monitoring and implementation of the new dog walking regulations. In addition, Alta Trail in the Marin Headlands Trails, Crissy Field, and Fort Funston are high use commercial dog walking areas, with typically 5 to 12 dogs under voice control per walker. Because of the reduction in the number of dogs walked by commercial dog walkers and the on-leash dog walking requirement in alternative B, dog-related visitor incidents reported at these locations would be reduced.

Under alternatives C and E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites, any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. In a VSCA, permit holders may have up to six dogs off leash. Permits could restrict use by time and area. Long-term minor adverse impacts on park operations would result from the implementation of commercial dog walking regulations under alternatives C and E. Park staff would be needed for the development, implementation, monitoring, and enforcement of the new permit system for commercial and private dog walkers wanting to walk more than three dogs at a time. The following sites would allow permits for commercial or private dog walkers to walk four to six dogs: Alta Trail/Orchard Fire Road/Pacheco Fire Road, Rodeo

Beach/South Rodeo Beach, Fort Baker (excluding Down Fire Road), Upper and Lower Fort Mason, Crissy Field, Baker Beach and Bluffs to Golden Gate Bridge, and Fort Funston.

Under alternative D, no commercial dog walking would be allowed. Therefore, individuals would be allowed to walk one to three dogs per person on leash. Impacts on park operations would be negligible because permits would not be allocated under alternative D, and no additional time would be needed by park staff to issue permits. Park staff would be needed to monitor and enforce new regulations for dog walkers, both private and commercial, walking more than three dogs; however, this would be incorporated with daily monitoring and implementation of the new dog walking regulations.

Overall Long-Term Impacts from New Dog Walking Regulations. When considered together, the long-term impacts from dog walking regulations—including areas where dogs walking would be prohibited, areas of on-leash dog walking, areas where dogs would be allowed under voice and sight control, and commercial dog walking—would be long-term minor and adverse.

Cumulative Impacts. The long-term minor adverse impacts on park operations from dog walking at GGNRA under alternatives B, C, D, and E were considered together with the effects of the projects mentioned above in alternative A. The adverse impacts on park operations from the rehabilitation and improvement projects and increased security activities, combined with the negligible impacts from interim permitting program, and the long-term minor to moderate adverse impacts on park operations from the alternatives B, C, D, and E would result in long-term minor adverse impacts cumulative impacts on park operations.

PARK OPERATIONS IMPACTS FOR ALL SITES: ALTERNATIVES B, C, D, AND E CONCLUSION TABLE

Park Operations Impacts		Rationale	Cumulative Impacts
Staffing, Non-Personnel Costs, Concentrated Education and Law Enforcement	Short term moderate to major adverse impacts on park budget division budgets, staffing, labor, enforcement, maintenance, monitoring, communications, records keeping, and management	Hiring of additional employees for dog management, a short-term increase in education and law enforcement activities (records management, court appearances, etc.), maintenance (signage placement, fencing, etc.), to enforce new dog management regulations during the extended education. Initially, the number of citations would likely increase substantially	Long-term minor adverse impacts cumulative adverse impacts on park operations Long-term minor adverse cumulative impacts after the initial education period
	Long-term, minor, adverse impacts on park operations from implementation of the monitoring-based management program and the permitting program	Park staff tasks associated with dog management-related activities would decline after the implementation period but would include issuing citations, monitoring case incident reports, handling visitor conflicts, complaints, and phone calls	
Alternatives that Propose No Dogs	Long-term negligible to minor adverse impacts on park operations assuming compliance	Staff would be needed to continue to enforce regulations; however, enforcement would be easy since visitors with dogs would be clearly in violation	
Alternatives that Propose On-Leash Dog Walking	Long-term negligible to minor adverse impacts for assuming compliance	Regulation would be more easily enforceable and the number of citations would decline in years after implementation	

Park Operations Impacts		Rationale	Cumulative Impacts
Alternatives that Propose VSCAs for Oakwood Valley, Muir Beach, Rodeo Beach/South Rodeo Beach, Upper and Lower Fort Mason, and Baker Beach and Bluffs to Golden Gate Bridge	Negligible to minor impacts on park operations assuming compliance	Less additional labor or staffing would be needed at sites where voice control was previously allowed, usage is low to moderate, and dog-related incidents are low	
Alternatives that Propose VSCAs for Crissy Field, Fort Funston, and Ocean Beach	Long-term minor to moderate adverse impacts on park operations assuming compliance	Continued need for enforcement activities, monitoring for compliance, sites with unfenced boundaries for VSCAs, and history of frequent incidents of noncompliance would affect park operations	
Commercial Dog Walking	Negligible impacts on park operations under alternative B. Long-term minor adverse impacts on park operations assuming compliance under alternatives C and E	Permits would not be allocated under this alternative. Continued development, implementation, management, and enforcement of the permit program for commercial dog walking would be necessary	

ALTERNATIVE F: PREFERRED ALTERNATIVE

Table 36 provides the total estimated costs associated with personnel and labor (including new employees) to complete tasks necessary for implementation of the preferred alternative. Personnel costs include labor related to compliance monitoring, education, communications and outreach, enforcement, planning, natural resources, record keeping and data management, maintenance, project management, and contract labor. Non-personnel costs include equipment, vehicles, supplies, etc., necessary to perform duties associated with each alternative and are also provided. The addition of new employees would create short-term moderate to major adverse impacts on the current park budget. Division budgets would also increase beyond the cost of new personnel to cover current staff workloads specific to dog management and field and equipment costs, including vehicles, computers, etc., creating short-term moderate to major adverse impacts on current division budgets. If new funding becomes available, impacts would be minimized. Following the implementation of the plan, education period, and monitoring period, impacts to park operations would be long-term, minor, and adverse. As compliance begins, the number of staff and associated equipment needed for monitoring and enforcement would taper to an adjusted level.

TABLE 36. ESTIMATED OPERATIONAL TRANSITION COSTS (ALTERNATIVE F)

Costs	Alternative F: Preferred Alternative
Business Management Division	\$78,000
Interpretation Division	\$158,459
Maintenance Division	\$178,978
Natural Resources Division	\$129,580
Planning Division (includes monitoring program)*	\$487,671
Project Management	\$103,475
Communications Division (includes outreach education)	\$344,459
U.S. Park Police	\$302,744
Visitor and Resource Protection Division	\$548,741
Total Personnel Costs (all Divisions)	\$2,332, 107
Total Non-personnel Costs (all Divisions)	\$233,211
Estimated Total Cost*	\$2,565,318

* Total costs are short- term operational costs, assuming compliance, including a transition year and include existing staff. Costs could continue into the long-term if noncompliance occurs. One-time costs for signage, fencing, gates, paths, and other physical improvements are expected to range from \$1M to \$2M during the transition years.

Sites that Would Allow On-Leash Dog Walking. Under the preferred alternative, the following park locations would allow on-leash dog walking only:

- Stinson Beach
- Homestead Valley
- Alta Trail/Orchard Fire Road/Pacheco Fire Road
- Oakwood Valley
- Muir Beach
- Marin Headlands Trails
- Fort Baker
- Fort Point Promenade/Fort Point NHS Trails
- Baker Beach
- Fort Miley
- Lands End
- Sutro Heights Park
- Mori Point
- Milagra Ridge
- Sweeney Ridge/Cattle Hill

Short-term moderate to major adverse impacts on the current park budget would be expected due to the increased costs associated with new staffing, equipment, vehicles, field equipment, and computers. Some park division budgets would also increase, creating additional short-term moderate to major adverse impacts on other individual division budgets. Impacts on park operations would also be expected due to education regarding the new dog walking regulations. Impacts would be due to the costs associated with holding public meetings and media interviews, creating and publishing web site announcements and newspaper and magazine advertisements, developing and placing new signs, developing guides/brochures to explain walking dogs within GGNRA, and hiring new employees in communications and interpretation divisions to address outreach and education. Impacts on law enforcement would also be short term, moderate to major, and adverse, due to an increase in staffing and time required to successfully implement the new dog management regulations.

Under the preferred alternative, on-leash dog walking would be allowed at sites where dog walking under voice control is allowed under current conditions. All, or portions, of Homestead Valley, Alta Trail/Orchard Fire Road/Pacheco Fire Road, Oakwood Valley, Muir Beach, Marin Headlands Trails, Crissy Field, Baker Beach, Fort Miley, Lands End, Ocean Beach and Fort Funston would change to on-leash dog walking. The new on-leash restrictions for portions of former sites where “on-leash or voice-control” was allowed throughout the site would result in an overall improvement to park operations (compared to current conditions) after the initial education and enforcement period. Though the number of citations may increase initially due to potential visitor disagreement with and resistance to the new dog walking regulation, in the long term the number of case incident reports and citations related to dog walking at these sites would decline, especially at historically problematic sites, as the transition to the new standards become established. The remaining sites currently have relatively low numbers of pet-related incidents; these sites would be expected to continue to have a low rate of incident reports and would not be problematic for NPS staff, resulting in long-term minor adverse impacts on park operations.

At Fort Baker, Sutro Heights Park, Mori Point, Milagra Ridge, Sweeney Ridge/Cattle Hill, and Rancho Corral de Tierra only on-leash dog walking is currently allowed; however, the size of the area and number of trails currently open to on-leash dog walking would be reduced under the preferred alternative. As stated above, changes restricting dog walking would initially result in a higher number of citations, but would eventually improve in the long term. Impacts to park operations would be long term minor and adverse because staff would continue to monitor and enforce the sites.

Dog walking regulations would not change from current conditions at Fort Point Promenade/Fort Point NHS Trails. The only change at Stinson Beach would be the addition of an access path to Upton Beach and the possibility of temporary closure of the Central Picnic Area when the South Parking Lot floods and impedes access to the South Picnic Area. Impacts on park operations would be negligible given that dogs are still allowed through Stinson beach to Upton and may require regular reminders that dogs otherwise are prohibited on Stinson as a swimming beach; however, boundary signage would be installed to inform visitors. The level of law enforcement needed at these sites under the new management regulations would increase in the short-term and level out once the trail and new standards are established.

Under the preferred alternative, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs, with a limit of six dogs. Permits would restrict use by time and area to Monday through Friday between 8 a.m. and 5 p.m. Permitted dog walking would be allowed in specific areas at seven park sites: Alta Trail (Alta Trail to junction with Oakwood Valley Trail; excluding Orchard and Pacheco Fire Roads), Rodeo Beach, Fort Baker (excluding Cavallo Lodge area), Fort Mason (excluding grass areas of Great Meadow), Crissy Field (direct access segments of the Promenade between Airfield and Central beach and between East Beach parking and closest access to Central beach with corresponding beach access trails, Central beach, Airfield, and Mason Street multi-use path (pedestrian

lane); Baker Beach (North Beach, Baker Beach Access Trails #1 and #2, the segment of the Coastal Trail connecting the northern parking lot and Baker Beach Access Trail #1, and the parking lots with connecting trail between them); and Fort Funston (excluding the Coastal Trail north of the Funston Beach Trail North). Long-term moderate adverse impacts on park operations would result from implementation of the commercial dog walking regulations. Park staff would be needed for the development, implementation, monitoring, and enforcement of the new permit system for commercial and private dog walkers wanting to walk more than three dogs at a time.

Permits to walk more than three dogs would not be issued for Stinson Beach, Homestead Valley, Oakwood Valley, Muir Beach, Marin Headlands Trails, Fort Point Promenade/Fort Point NHS Trails, Fort Miley, Lands End, Sutro Heights Park, Ocean Beach, Mori Point, Milagra Ridge, Sweeney Ridge/Cattle Hill, or Rancho Corral del Tierra. Therefore, all dog walkers at those sites, including commercial dog walkers, would only be allowed to walk one to three dogs per person. Implementation of commercial dog walking regulations would have long-term minor adverse impacts on park operations at these sites. Park staff would be needed to monitor and enforce the new regulations, including issuing warnings and citations for both private and commercial dog walkers walking more than three dogs; however, this would be incorporated with daily monitoring and implementation of the new dog walking regulations.

There would be a short-term minor adverse impact on park operations as a result of the two different definitions of the Crissy Field WPA (the 36 CFR 7.97(d) definition for alternative A and the Warming Hut to approximately 900 feet east of the former Coast Guard Pier definition for the preferred alternative). During the education and outreach period, park staff would explain and inform visitors about the adjusted eastern boundary of the WPA. More explanation of these two definitions can be found in the “Current Regulations and Policies” section of chapter 2.

Overall Long-Term Impacts from On-Leash Dog Walking Regulations under Alternative F. When considered together, the long-term impacts from dog walking regulations—including areas where dogs walking would be prohibited, areas where on-leash dog walking would be reduced, and areas where permits for walking four to six dogs would be allowed—would be long-term minor and adverse.

Cumulative Impacts. Initial increases in labor expenditures for dog-related activities by current park staff would be expected due to education, monitoring and enforcement needs; however, it is expected that compliance with the new leash regulations would improve over time, and the percentage of time required by park staff working on dog management-related activities would likely decrease over the next 20 years as dog management-related activities become routine.

In addition to dog management and its effects on park operations, there are other projects that have the potential to affect park operations due to staffing and budgeting requirements and the need to coordinate with entities managing those efforts. A list of these projects can be found in appendix K. For example, the proposed extension of the Municipal Railway’s Historic Streetcar Service would continue the F-line three blocks west to San Francisco Maritime National Historic Park and then on through the Fort Mason Tunnel to the Fort Mason Center at GGNRA (NPS 2010h, 1). Additionally, with completion of the Doyle Drive replacement project to replace the 73-year-old Doyle Drive, which runs through area B lands of the Presidio, a tunnel tops project is being initiated by the Presidio Trust and will increase visitation from the Presidio Main Post to Crissy field in the vicinity of the Crissy Marsh and the Fort Mason multi-use path with viaducts. Also, a Crissy Field rehabilitation project will be initiated in 2017 to evaluate updating needed for use areas and facilities.

In general, based on recent trends park operation costs would be expected to increase.

The long-term minor adverse impacts on park operations from dog walking at GGNRA under alternative F were considered together with the effects of the projects mentioned above. The adverse impacts on park operations from the rehabilitation and improvement projects and increased security activities, combined with the long-term minor adverse impacts on park operations from the preferred alternative would result in long-term minor to moderate adverse impacts cumulative impacts on park operations.

PARK OPERATIONS IMPACTS FOR ON-LEASH DOG WALKING AREAS PREFERRED ALTERNATIVE F CONCLUSION TABLE

Park Operations Impacts		Rationale	Cumulative Impacts
Staffing, Non-Personnel Costs, Concentrated Education and Law Enforcement	Short-term moderate to major adverse impacts on park budget, division budgets, staffing, labor, enforcement, maintenance, monitoring, records keeping, and management	Hiring of additional employees for dog management, a short-term increase in education, monitoring, law enforcement activities (records management, court appearances, etc.), and maintenance (signage placement, fencing, etc.), to enforce new dog management regulations during the initial transition period Initially, in the short term, the number of citations would likely increase substantially	Long-term minor to moderate adverse cumulative impacts
Locations with Portions that Change from Voice Control to On Leash and On-Leash Walking to No Dogs	Long-term minor adverse impacts on park operations assuming compliance	Regulation would be easily enforceable and the number of citations would decline in years after implementation	Long-term minor adverse cumulative impacts as a result of dog management efforts
Locations Where the On-Leash Areas Would Be Unchanged	Negligible impacts during implementation assuming compliance	Level of enforcement at sites where conditions would remain the same and there are few dog-related incidents occurring currently	
Permitted Dog Walking	Long-term moderate adverse impacts on park operations assuming compliance	Park staff would be needed for the development, implementation, monitoring, and enforcement of the new permit system for commercial and private dog walkers wanting to walk more than three dogs at a time.	

Sites that Would Allow VSCAs. Under the preferred alternative, sites within the following park locations would allow VSCAs, as well as on-leash dog walking:

- Rodeo Beach
- Fort Mason
- Crissy Field
- Ocean Beach
- Fort Funston
- Rancho Corral De Tierra(Flat Top)

Short-term moderate to major adverse impacts on the current park budget would be expected at the park locations listed above due to the increased costs associated with the transition period of increased education and enforcement, due to the need for new staffing, equipment, vehicles, field equipment, and computers. Costs, particularly those associated with new personnel, would create short-term, moderate to major adverse impacts on individual division budgets. Short-term impacts would be due to the costs associated with holding public meetings and media interviews, creating and publishing web site announcements, developing guides/brochures to walking dogs at GGNRA, site outreach and hiring new personnel in the interpretation and Communications divisions. Impacts on law enforcement would also be short-term, moderate to major, and adverse, due to an increase in staffing and time required to successfully implement the new dog management regulations, especially at park locations and sites where regulations are changing. Maintenance and facilities increases would be needed both for developing, placing and maintaining new signs, but also for development, installation and maintenance of demarcations including fencing, and other landscape design features delineating boundaries. Planning and Natural Resource increases would be due to the new monitoring-based management program. Special Park uses program increase would be to manage the NPS permit system. In the long-term, impacts on park operations are expected to be minor and adverse due to the need for continuing monitoring, maintenance, NPS permitting and enforcement of the new dog walking regulations.

At South Rodeo Beach, Crissy Field WPA, Ocean Beach south of Stairwell 21, and Fort Funston areas including the beach north of the Funston Beach Trail North, the Funston Horse Trail, and all areas outside the VSCA and outside on-leash trails, dog walking would not be allowed under the preferred alternative. Under current conditions, dog walking under voice control is allowed throughout the Crissy Field areas that are not closed for resource protection, Ocean Beach, and Fort Funston sites, except for the seasonal leash restrictions for the western snowy plover in the Ocean Beach SPPA and the Crissy Field WPA. Enforcing a “no dogs” regulation would require law enforcement documentation of violations in sites where dogs would be prohibited; however, visitors with dogs in prohibited areas would be clearly in violation of the regulation and would receive a citation. Violators would quickly learn the consequences of their actions and, over the long term, compliance would result in fewer infractions. Initially, the number of citations could increase due to some visitors’ disagreement with, and resistance to, the new dog walking regulations resulting in short-term moderate to major adverse impacts. However, as compliance increases, the number of citations and incident reports would decline. The number of phone calls, emails, and letters regarding pet policies; personal complaints; and dog incident complaints is also expected to decrease after the transitional education and enforcement period, which would benefit the administrative staff time and could benefit the administrative staff budget by reducing the number of staff members and/or staff labor hours necessary to track incidents and maintain records. In the long term, impacts to park operations are expected to be long-term, minor, and adverse.

On-leash dog walking would also be reduced on the Promenade and trails, the Ocean Beach Trail adjacent to the Ocean Beach SPPA, and on Fort Funston trails where dog walking is allowed outside the VSCAs. Under current conditions, dog walking under voice control is allowed in the areas listed above. The new on-leash restrictions for former “on-leash or voice control” sites would result in an overall improvement on park operations (compared to current conditions) after the transitional education and enforcement period, since regulations would be enforceable. There would be short-term moderate to major impacts at the Promenade and trails, the trail adjacent to the Ocean Beach SPPA, and on the majority of Fort Funston trails during the transitional implementation period. Over time, the impact would be reduced to negligible to minor. Although the number of citations may increase initially due to potential of some visitor disagreement with and resistance to the new dog walking regulations, in the long term the number of case incident reports and citations related to dog walking at these sites would decline, especially because these sites have been historically problematic.

At Upper and Lower Fort Mason, on-leash dog walking is currently allowed; however, select areas that are currently open to on-leash dog walking would be closed under the preferred alternative. A VSCA would be established at Laguna Green with safety fencing and/or a vegetative barrier. As noted above, changes to dog walking at this site such as where dog walkers with 4-6 dogs may go, would initially result in a higher number of citations, but would eventually result in an improvement on park operations, since NPS permit reviews and conditions would reinforce compliance and people who want to walk their dogs off leash would be able to use the VSCA rather than other Fort Mason areas.

Under the preferred alternative, VSCAs would also be established at Rodeo Beach, and portions of Crissy Field, Ocean Beach, and Fort Funston. Under current conditions, dog walking off leash, under voice control, is allowed throughout much of these park locations, except seasonally below Stairwell 21 on Ocean beach. Establishing VSCAs in these sites would be similar to current conditions in those areas where that would be continued, but the total area available for dog walking in these park locations under voice control would be reduced. As a result, transitional impacts on park operations for these park locations would be short-term, moderate to major, but impacts would be reduced substantially in the long term since after the transitional implementation period of up to 4–5 years, it is not expected that VSCAs at any of these sites would result in substantial additional staffing for most operational divisions other than monitoring, maintenance and ongoing enforcement staffing which would level off at an adjusted higher level than current staffing to accommodate the remaining workload to maintain physical features and sustain higher compliance rates. When VSCAs have unfenced boundaries delineated only by signs, such as on the north/south division of the beach at Fort Funston, short-term moderate to major adverse impacts on park operations would result due to the transitional need for education, outreach, monitoring and enforcement. This would also occur in areas where a VSCA is smaller than the area previously open to dog walking under voice control and is directly adjacent to on-leash or no-dog areas, such as at Ocean Beach, Crissy Airfield or Fort Funston. It is expected that over the long term, impacts on park operations would be minor and adverse because of the continued need for education, outreach, monitoring, and enforcement of the VSCA boundaries.

If funding is available, fencing, vegetative barriers and other landscape design features would be installed in some VSCA areas. At Fort Mason, safety fencing with gates and a vegetative barrier is proposed to be installed on the Laguna Green VSCA. At Crissy Field, fencing would be maintained around the dunes bordering Central Beach and added at the western and eastern edge of the Central Beach VSCA with gates for non-dogwalkers to access the shoreline. At Fort Funston, the upland VSCA would be separated from the parking lot and adjacent no-dog trails and areas. At the Crissy Airfield, both paths and other landscape design features would be installed to delineate different areas could be installed Maintenance staff would be responsible for installing and maintaining these landscape design solution, including fencing/barriers as needed. Initially, impacts to maintenance staff for the installation of the fences or barriers would be short-term, minor, and adverse. It is expected over the long-term, impacts to park staff from the maintenance of the fencing and barriers would be minor because it is anticipated that repair and replacement would be minimal in many areas, although potentially higher in high use locations.

Under the preferred alternative, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs without a permit. Any dog walker, commercial or private, could obtain a permit to walk more than three dogs, with a limit of six dogs. In a VSCA, permit holders may have up to six dogs off leash. Permits would restrict use by time and area. Long-term moderate adverse impacts on park operations would result from implementation of the commercial dog walking regulations. Park staff would be needed for the development, implementation, management, monitoring, and enforcement of the new permit system for commercial and private dog walkers wanting to walk more than three dogs at a time. Fort Baker (excluding Drown Road and Cavallo Lodge area), Alta Trail (as far as intersection with Orchard Trail (formerly Fire Road), Rodeo Beach, Fort Mason(except Great Meadow grass areas), Crissy Field(Airfield, Central Beach, and direct paths to each), Baker Beach(north beach and its access trails

from parking lots), and Fort Funston(except Coastal trail north of Funston Beach north trail) would allow permits for commercial or private dog walkers to walk four to six dogs in the VSCAs under the preferred alternative. Ocean Beach is not one of the sites where permits to walk more than three dogs would be issued.

Overall Long-Term Impacts from VSCA Regulations under Alternative F. When considered together, the long-term impacts from dog walking regulations—including areas where voice and sight control dog walking would be prohibited, areas where voice and sight control dog walking would be reduced, and areas where permits for walking four to six dogs would be allowed—would be long-term minor and adverse.

Cumulative Impacts. The long-term minor adverse impacts on park operations from dog walking at GGNRA under alternative F were considered together with the effects of the projects mentioned above in the on-leash dog walking section for alternative F. The adverse impacts on park operations from the rehabilitation and improvement projects and increased security activities, combined with the negligible impacts from interim permitting program, and the long-term minor to moderate adverse impacts on park operations from the alternative F would result in long-term minor adverse impacts cumulative impacts on park operations.

PARK OPERATIONS IMPACTS FOR OFF-LEASH DOG WALKING AREAS PREFERRED ALTERNATIVE F CONCLUSION TABLE

Park Operations Impacts		Rationale	Cumulative Impacts
Staffing, Non-Personnel Costs, Concentrated Education and Law Enforcement	Short- term moderate to major adverse impacts on park budget, division budgets, staffing, labor, enforcement, maintenance, monitoring, records keeping, and management	Hiring of additional employees for dog management, a temporary increase in education and law enforcement activities (records management, court appearances, etc.), maintenance (signage development and installation, fencing, etc.), to enforce new dog management regulations during the transition and education period. Initially, the number of citations would likely increase substantially.	Short-term moderate to major cumulative adverse impacts due to initial substantial levels of effort for education, outreach, monitoring, and enforcement
	Long-term, minor, adverse impacts on park operations from implementation of the monitoring-based management program and the permitting program	Installation and maintenance of fencing, and other landscape design features delineating boundaries. Monitoring efforts of the monitoring-based management program after 4-5 years. Management of the NPS permit system.	
Locations with Portions that Change from Voice Control to No Dogs	Long-term, minor, adverse impacts during implementation assuming compliance	Level of enforcement at sites would initially be high since some of these areas were previously open to dog walking	Long-term, minor, adverse cumulative impacts as a result of dog management efforts

Park Operations Impacts		Rationale	Cumulative Impacts
Locations with Portions that Change from Voice Control to On-Leash Areas	Long-term negligible to minor adverse impacts on park operations assuming compliance	Regulation would be clearly enforceable and the number of citations would decline over time in the long term. Short- term adverse impacts on park operations; however, substantial initial resistance to new regulation expected to decline over time.	
Locations with VSCAs that are Off Leash under Current Conditions	Long-term negligible to minor adverse impacts on park operations assuming compliance	Level of enforcement at the sites would initially be high throughout the transition, since the areas open to voice control dog walking would be reduced from the current conditions and new behavioral requirements would be instituted under the final rule for voice and sight control. In the long term, the level of enforcement is expected to lessen, since voice control dog walking would still be allowed in these areas and as a result of education and outreach efforts.	
Locations with VSCAs that are Adjacent to No Dog and On-Leash Areas	Long-term negligible to minor impacts on park operations assuming compliance	Education and enforcement would be a critical need in the short- term and a continuing need in the long term	

Note: Citations for possessing a pet in a closed area and violation of a closed area are used interchangeably on incident reports, but are separate violations; therefore, they were not compiled in this analysis.

HUMAN HEALTH AND SAFETY

GUIDING POLICIES AND REGULATIONS

NPS Management Policies 2006

The NPS has designated management policies related to human health and safety for park facilities as outlined below or as discussed in the *NPS Management Policies 2006*.

8.2.5.1 Visitor Safety – The NPS will seek to provide a safe and healthful environment for visitors and employees by working cooperatively with other federal, tribal, state, and local agencies, organizations, and individuals. Nationally accepted codes, standards, engineering principles, and NPS guidance will be applied to protect against threats to human health and safety (NPS 2006a, Section 8.2.5.1).

Director’s Order #83

It is the policy of the NPS to protect the health and well-being of NPS employees and park visitors through the elimination or control of disease agents and the various modes of their transmission to humans and to ensure compliance with applicable federal, state, and local public health laws, regulations, and ordinances (NPS 2004b, 2).

Code of Federal Regulations

36 CFR 1.5(a)(1) through (a)(3) provide authority for superintendents to manage areas and specific uses/activities for the maintenance of public health and safety, protection of environmental or scenic values, protection of natural resources, implementation of management responsibilities, equitable allocation and use of facilities, or avoidance of conflict among visitor use activities.

36 CFR 2.15(a)(1) prohibits dogs on designated swimming beaches.

36 CFR 2.15(a)(5) protects visitor health and safety by providing regulations as authorized by the superintendent under 36 CFR 1.5(a)(1) through (a)(3) for failure to comply with the disposal of pet waste.

36 CFR 2.15(c) and (d) provide regulations on dealing with pets running at large, including those observed in the act of killing, injuring, or molesting humans, by an authorized person.

36 CFR 2.34 defines disorderly conduct and prohibited acts such as fighting, threatening or violent behavior, inflicting injury, inciting breach of the peace, and creating or maintaining hazardous or physically offensive conditions.

36 CFR 5.13 prohibits commercial or private operations from creating or maintaining a nuisance (undefined).

STUDY AREA

The geographic study area for health and safety includes the sites of GGNRA included in this final plan/EIS, as well as nearby dog walking areas (outside of GGNRA) that could be impacted by dog management activities. There are 22 individual GGNRA sites relevant to this project, which have been previously described in detail in chapter 3.

DURATION OF IMPACT

Duration describes the length of time an effect would occur, either short term or long term. Long-term impacts to human health and safety are described as those persisting for the life of the plan/EIS (the next 20 years). After the implementation of the plan, a period of public education would occur to implement the proposed action followed by a period testing the monitoring-based management program. At the beginning of the education, outreach, and enforcement period, short-term impacts on human health and safety would occur, regardless of the alternative chosen and would be similar to the current conditions. Following the education and outreach period, monitoring for noncompliance and resource impacts would begin and it is expected that compliance with the dog walking regulations and associated adverse impacts would improve gradually.

ASSESSMENT METHODOLOGY

The analysis of effects on human health and safety considered conflicts between dogs and various user groups of the park. The presence of dog waste at park sites was also included in the analysis. Impacts on both park visitors and park employees were analyzed quantitatively using the park's law enforcement database of incident reports documenting pet-related citations and warnings, from 2008 and 2011, which are presented in tables 12a–29a and from 2012 through 2016, which are presented in tables 12b through 29b and 30. Qualitative analysis considered the law enforcement database along with information from relevant studies, personal communication, and professional judgment to predict changes in human health and safety over the next 20 years.

IMPACT THRESHOLDS

Health and safety impacts were determined by examining the potential effects of dog walking activities on the health and safety of park visitor and staff within a park site. The intensity of each adverse impact is judged as having a minor, moderate, or major effect. A beneficial impact would be a positive change in the condition or appearance of the resource. Negligible impacts are neither adverse nor beneficial, nor long-term or short-term. No impacts to the health and safety of park visitors and staff may also be applicable for some alternatives and sites if dogs are prohibited. The following impact thresholds were established to describe the effects to the health and safety of park visitors and staff under the various alternatives being considered:

Beneficial A beneficial impact is a beneficial change from the current condition and is a relative indicator of progress compared to the no-action alternative. In general, a beneficial impact would be a decrease in the number of dog-related confrontations, injuries, and illnesses.

Negligible The health and safety of both park visitors and park employees would not be affected, or the effects would be at such low levels of detection that no appreciable effect on human health or safety would be measurable.

Adverse **Minor.** Effects on the health and safety of both park visitors and park employees would be detectable but would not be large enough to be quantified.

Moderate. Effects would be readily apparent and would result in substantial, noticeable effects on the health and safety of both park visitors and park employees on a local scale. Revision of park policies could be required to ensure human health and safety.

Major. Effects would be readily apparent and long term, and would result in substantial, noticeable effects on human health and safety for both park visitors and park employees on a regional scale. Revision of park policies would be required to ensure human health and safety.

COMMON TO ALL ALTERNATIVES

Visitor Health and Safety Impacts

Encounters with Unruly/Aggressive Dogs. Many of the issues related to the health and safety of visitors at the park are related to encounters with unruly or aggressive dogs. Reported incidents include those of being knocked down, intimidated, and bitten by dogs. Between 2008 and 2011, a total of 87 violations were given for dog bites or attacks at the GGNRA park sites included in this final plan/EIS (tables 12a–29a). Between 2012 and 2016, a total of 77 violations were given for dog bites (tables 12b–29b, and 30). Having dogs under voice and sight control increases the risk of dog bites/attacks since dog owners do not have the control of a leash, although the enforceable VSCA guidelines would require that dogs must be under voice and sight control. In addition, dogs both on-leash and off-leash have the potential to fight or attack another dog. Additional risk of injury comes when people try to separate dogs during dog-to-dog interactions. During the public comment period for the draft plan/EIS, the public described their experiences with unruly, off-leash dogs. For example, off-leash dogs can pose a threat to horses using trails at GGNRA. They are often aggressive towards horses, which can spook horses, and result in injuries to riders, horses, and dogs. In August 2012, an off-leash dog began barking at a U.S. Park Police Horse-

Mounted Officer near the East Bluff area of Crissy Field. The dog then attacked the horse by biting the horse's stomach and rear leg. As a result the horse fell and the U.S. Park Police Officer was thrown to the ground leaving both the officer and the horse injured (San Francisco Police Department 2012, 1). Dogs also present a substantial risk to bikers, hang-gliders, and other recreational user groups. In 2009, there was a serious dog attack involving a hang glider at Fort Funston. As the hang glider was preparing to land, two dogs were chasing the individual and barking. One dog bit the hang glider on the leg as he was landing, causing the glider to crash since the control frame was brought to a sudden halt. The hang glider was bitten and suffered minor injuries from the crash. One commenter stated, "I've been attacked by a dog while riding a bike, and another dog charged 2 of us while on horseback-causing the person I was with to fall and be injured" (NPS 2011a, Correspondence 959). Another stated, "I am a 20 year San Francisco home owner AND a dog owner. I do not want off-leash dogs in any of our parks. Dogs are dangerous and frightening. My dog was recently attacked and almost killed by three Great Danes that were off-leash. It was a horrible experience. Only if dogs are controlled will I ever feel safe again" (NPS 2011a, Correspondence 3925).

Serious dog bites can result in injury/disease to the individual, medical insurance and worker's compensation claims, lost wages, and sick leave (AVMA 2001, 1733). Over 130 disease-causing microbes have been isolated from dog wounds (LSU 2009, 1). The three most common bacteria associated with infections from dog bites include *Pasteurella*, *Streptococcus*, and *Staphylococcus*. Risks to visitors of incurring injuries secondary to a bite or attempted bite also exist. For instance, a jogger may trip and break an arm or a bicyclist may fall off their bike while avoiding a threatening dog. Dog-on-dog bites and dog-on-horse bites often involve visitors who could be injured during these conflicts (e.g., attempts to separate dogs, horses bolting).

In general, children are the most common victims of serious dog bites in the United States, with 70 percent of fatal dog attacks and more than half of serious bite wounds involving children, whose natural behaviors (running, yelling, grabbing, hitting) put them at elevated risk for dog bite injuries (AVMA 2001, 1741). Affectionate or neutral interactions by children including eye contact, petting, or postural changes can also be provocative for some dogs (Reisner and Shofer 2008). The most vulnerable children are young boys between the ages of 5 and 9. A study indicated that many dog owners cannot recognize situations that might become dangerous when dogs are interacting with children. A survey was distributed to dog owners and they were asked to indicate whether they agreed or disagreed with 37 statements regarding dog behavior and safety practices for dog-child interactions. The results of this study indicated that dog owners frequently had a limited knowledge of dog behavior and were often unaware of other factors that increased the risk of dog bites to children (Reisner and Shofer 2008). During the public comment period for the draft plan/EIS, the public described their experience with off-leash dogs around children. One commenter stated, "This last weekend, we were walking with our granddaughters, ages 7 and 9, where there were several dogs off leash. Although I have no doubt that the dogs were friendly enough, their enthusiasm scared both our girls, to the point of their wanting us to pick them up" (NPS 2011a, Correspondence 2304).

The elderly, and mobility impaired visitors are also considered at higher risk of dog bite injury/disease due to thinning skin (increased risk of bruising, serious lacerations). Decreased sensory perception (diminished eye sight, hearing) and motor skills can result in elderly people not seeing or hearing a threatening or unruly dog or being unable to physically protect themselves or escape from an aggressive dog (AVMA 2001, 1742). In general, elderly and mobility impaired visitors may have slower speed, reaction time, and mobility options when encountering an unruly or aggressive dog. During the public comment period for the draft plan/EIS, senior citizens described their opinions about off-leash dog walking. One commenter stated, "As a senior citizen, I don't feel safe when dogs are allowed to run free. I have been bitten, had my food taken, water shaken on me and had dogs running between my legs causing

me to fall, while owners of the dogs did nothing to prevent these occurrences. And the owners disrespect posted signs and get defensive when they are pointed out” (NPS 2011a, Correspondence 4269).

The potential for encountering unruly dog behavior (biting, knocking visitors down, and being aggressive) is elevated in certain portions of the park where visitor use is high and dogs are under voice control. Between 2008 and 2011 violations were given for a total of 14 dog bites or attacks at Crissy Field, 21 dog bites or attacks at Ocean Beach, and 32 dog bites or attacks at Fort Funston (tables 20a, 25a, and 26a). Between 2012 and 2016, violations were given for a total of 11 dog bites at Crissy Field, 9 dogs bites at Ocean Beach, and 25 dog bites at Fort Funston (tables 20b, 25b, and 26b). Most of the health and safety effects from dogs are short term, though serious, permanent injury from unruly dogs would result in long-term impacts on the health and safety of visitors. In addition, although each individual incident would be short term in nature, the impacts would continue to occur over the lifetime of the plan/EIS.

Personal Security. GGNRA is located in an urban environment and as shown in table 5 of chapter 3, other types of incidents such as drugs, alcohol use, and assaults do occur within the park. The presence of dogs at park sites is seen as protection by some visitors; they feel safer recreating in the park if they are accompanied by a dog or if dogs are present at the site. During the public scoping period for the draft plan/EIS, some commenters said that they felt much safer walking in GGNRA with their dog, and would be less likely to visit the park if they could not walk with their dog. These visitors believe that dogs and dog walkers have improved the safety of the parks by providing a constant presence. One commenter stated, “I am a woman who walks all times of day (and sometime evenings) without another person with me and I feel I need my dog with me. If dogs were banned, it would make it more challenging and would take away my access to the parks” (NPS 2011a, Correspondence 4026). Another commenter stated, “Restricting access to dogs and dog owners would significantly have a negative impact on my lifestyle and I would no longer be able to enjoy the outdoors with my best friends. My dog allows me to visit these urban parks and feel safe to exercise and enjoy the outdoors alone without fearing for my personal safety” (NPS 2011a, Correspondence 3903). The proposed restrictions on dog walking would affect those visitors that do not feel comfortable recreating at the park without the presence of dogs. These visitors would be limited to recreating in VSCAs and on-leash dog walking areas. Overall, impacts to visitors who feel safer walking in GGNRA with the dog would be negligible, since all of the sites within the scope of this final plan/EIS would still be available for some amount of dog walking recreation under this final plan/EIS.

Exercise. Visitors with dogs, including elderly and mobility impaired visitors may experience beneficial effects from walking their dogs. Having to walk a dog encourages individuals to be physically active, which helps maintain a healthy lifestyle. Dog walking also provides mental health benefits by providing a social community for many people. During the public comment period for the draft plan/EIS, many commenters noted that being able to walk with their dogs in GGNRA is a valuable experience for many visitors. GGNRA dog walking access improves the health and well-being of visitors, who rely on this resource to get exercise. One commenter stated, “Hiking with one's dog is a great way for individuals to get physical activity while also exercising their dogs” (NPS 2011a, Correspondence 356). Restricting dog walking access could adversely impact the health of these visitors as their access to dog walking in the park would be reduced.

Studies have shown that dog owners exercise more than people who do not own dogs. A study in Australia looked at how dog ownership influenced physical activity (Cutt et al. 2008). Dog owners walked their dog on average 2.6 times per week. Frequency and duration of total walking, walking for recreation, walking in the neighborhood, and total physical activity were higher among dog owners than those that did not own dogs. The results confirm the potentially important role that dogs could play in increasing levels of physical activity among owners (Cutt et al. 2008). In a separate study, 61 percent of the 2,170 dog owners sampled walked their dog for at least 10 minutes at a time. The median number of times dog owners reported walking their dog each week was three and the median duration was 25

minutes. The median weekly duration of dog walking was high among young dog owners, declined in middle age, and increased in persons aged 65 years and older. Dog walking contributed to a significant increase in the total amount of walking conducted per week (Reeves et al. 2011).

In addition to providing physical health benefits, dog companionship has been linked to better physiological, social, and mental health. During the public comment period, the visitors described their reasons for walking their dogs at GGNRA. One commenter stated, “My dog provides the motivation to get up and out on the trails every day, as well as companionship and protection: as a woman, I do not hike alone. The trail time doubles as walking meditation and fitness training, getting my mind set for the day ahead and, at day's end, providing an often-needed perspective re-set. My dog benefits in that he's well-exercised and socialized with other dogs and people. A well-exercised, socialized dog is a happy, well-adjusted, and non-aggressive dog. In fact, my dog is a certified therapy dog” (NPS 2011a, Correspondence 998). Another commenter stated, “Recreation with dogs is not just recreation for dogs - it is for the people with the dogs (dare I say dog owners) also. Walking (with or without a dog) lowers blood pressure, lowers rates of chronic and costly diseases, and has many other positive effects. We should be encouraging people to recreate with their dogs - not constantly attacking it” (NPS 2011a, Correspondence 3836).

Guide Dogs. During the public comment period for the draft plan/EIS, commenters noted that guide dogs are at risk from off-leash dogs, and that this compromises the safety of the guided individual. One commenter stated, “With dogs roaming freely, the guide dog team can be endangered. Dogs like to test each other. The average unleashed dog has not been trained in the discipline it takes to be responsibly unleashed unless that dog is in a fenced dog park....The risk to the guide dog team is only the beginning. The guide dog may be retrained, however the reinforcement training may not work. That means the \$70,000 guide dog is now useless and the guide dog user is left without a guide all because of someone wanting to allow their dog to run loose.” (NPS 2011a, Correspondence 277). Off-leash dogs can interfere with guide teams, often by attacking the guide dogs, threatening the physical and emotional well-being of guide dog teams. Even without physical injury, attacks and interference can negatively affect a guide dog's behavior and work performance. Following an attack, guide dogs may be unable to work because of physical injuries, and they may develop undesirable behaviors towards other dogs (Kutsch 2011). Guide dog teams would be more vulnerable in VSCAs due to the high number of off-leash dogs.

Currently, use of service animals within NPS areas is managed according to the NPS Director's memorandum on “Use of Service Animals by Persons with Disabilities in the National Park System,” dated September 5, 2002. On April 18, 2014, the NPS published a proposed rule in the Federal Register concerning service animals (79 FR 21876). The NPS expects to publish a final rule governing the use of service animals in the near future. Service animals accompanying a person with a disability, as defined by federal law and Department of Justice regulations (28 CFR 36.104), are allowed wherever visitors or employees are allowed. The preferred alternative in this final plan/EIS establishes on-leash dog walking areas that, together with the areas where dog walking is prohibited, provide the opportunity for visitors with service dogs to be separate from off-leash dogs throughout the park, including at those sites where off-leash dog walking would be allowed in VSCAs, with every type of site and experience (beach, trail, overlooks, interpretive and other recreational experiences, etc.) available.

Pathogens. Pet waste contains pathogens, such as *Giardia*, roundworms, *Salmonella*, parvovirus, and many other microorganisms that can be harmful to human health (CRCCD 2009, 1). Evidence shows that pets and urban wildlife can be significant bacterial sources. A single gram of dog feces can contain 23 million fecal coliform bacteria (Stormwater Center 2009, 1). A Baltimore, Maryland study found that dog feces were the single greatest contributor of fecal coliform and fecal strep bacteria in stormwater catchment samples (Stormwater Center 2009, 1). This evidence points to a need for enforcement and education to raise resident awareness regarding the water quality impacts of this urban pollutant source

(Stormwater Center 2009, 1). Leaving pet waste anywhere on the ground may expose children, adults, and other pets to these potential pathogens and bacteria (CRCCD 2009, 1). If pet waste is left on the ground, runoff from rain events may transport these microorganisms (including fecal coliform) to adjacent water bodies, such as streams, creeks, lakes, and lagoons. There is also a risk of getting sick from drinking or swimming in waters contaminated by pet waste (CRCCD 2009, 1). The Save the Bay Organization maintains a website that provides a community outreach and education page on pet waste pollution prevention (Save the Bay n.d, 1).

The U.S. Food and Drug Administration reported that roundworms and hookworms can infect dogs and can also infect people if they ingest the organisms, or, in the case of hookworms (which can penetrate the skin), if they walk barefoot on infected soil (USFDA 2009, 1). As intestinal parasites, worms live in the intestines of animals, including humans, and are expelled in the stool. If waste from infected dogs is left on the ground, the surrounding soil can become contaminated with eggs that are passed in animal feces and hatch in the soil. Touching contaminated stool or soil and then touching the mouth or handling food are common routes of transmission of worms to humans (USFDA 2009, 1). Children are at risk of acquiring worms if they walk barefoot or play in the soil where an infected dog has defecated or on the floor where a dog may have tracked in dirt or feces. Roundworms may cause serious health problems for children: Between 5 and 20 percent of children have been infected by dog roundworm at some time in their lives (USFDA 2009, 1). Left untreated, just one roundworm larva has been known to damage the retina of the human eye and cause blindness (USFDA 2009, 1). The Center for Disease Control and Prevention reports 10,000 cases of roundworm infection annually (PR Newswire Association 2009, 1). However, many pet owners are unaware that intestinal roundworms and hookworms pose serious health threats to their pets and human family members (PR Newswire Association 2009, 1).

Pet waste collection programs alleviate the potential contribution of pollutants resulting from pet waste. However, the effectiveness of waste removal programs in maintaining water quality is unknown because despite removal of pet waste, there is no way to ensure that all waste is collected. There is ample evidence that programs such as these are necessary in urban areas (Stormwater Center 2009, 1). For example, in the 20-square-mile Four Mile Run watershed in Northern Virginia, a dog population of 11,400 has been identified as a major contributor of bacteria in the watershed. It is estimated that the dogs contribute over 5,000 pounds of solid fecal waste every day into the watershed (NVPDC 1998, 4). Approximately 500 fecal coliform samples have been taken from Four Mile Run and its tributaries since 1990, and about 50 percent of these samples have exceeded Virginia water quality standards for fecal coliform bacteria (NVPDC 1998, 2). In another study, the City of Boulder Open Space and Mountain Parks in Colorado launched the Voice and Sight Tag program in the summer of 2006 with goals to increase compliance with existing rules and to decrease dog-related conflict on Open Space and Mountain Parks-managed lands (City of Boulder 2011, *i*). Compliance with the excrement removal requirement was generally low; just over 45 percent of the visitor parties complied with the excrement requirement in 2010 (City of Boulder 2011, 11). Noncompliance with pet waste removal policies is an issue at many parks across the U.S., including GGNRA.

Currently, adverse impacts on visitor human health and safety from dog-related pathogens exist at all park sites considered in this final plan/EIS. Sites such as Fort Funston, which is heavily used by dog walkers, and sites with beaches, where visitors may be barefoot or where children play, such as Crissy Field and Ocean Beach, may have more of a health and safety risk from dog-related pathogens than sites that are not as heavily used by dog walkers, are not beaches, and are not sites where children generally play. Citations can only be issued when law enforcement staff members witness improper removal of pet waste. Between 2008 and 2011, 15 violations were issued for improper removal of pet excrement on park property. Violations were issued at Stinson Beach, Muir Beach, Rodeo Beach, Marin Headlands Trails, Crissy Field, Baker Beach, Ocean Beach, Mori Point, and Milagra Ridge (tables 12a–29a). Although the total number of violations for improper removal of pet waste at GGNRA is low, most occurrences are not

witnessed first-hand by law enforcement staff and thus are not recorded, but pet waste is still an issue at GGNRA. No data is available for violations from 2012 through 2016 because violations were categorized differently during a NPS servicewide change in law enforcement reporting and tracking software and its implementation. During the public comment period for the draft plan/EIS, commenters described conditions at the park sites that contain large amounts of dog waste. One commenter stated, “The dogs urinate and defecate all over the beach, and while many owners do clean up their dog's poop, some do not and no one can do anything about all the dog urine all over the beach. Kids who play in the sand are constantly exposed to this dog urine and excrement, which is both unpleasant and unhealthy” (NPS 2011a, Correspondence 4318). One commenter noted that multiple infections have been reported at local hospitals from bacteria transmitted from dog feces, “The feces left by dogs present an infectious disease hazard. They carry a number of intestinal parasites or worms such as roundworms, hookworms, and coccidia, some of which can infect humans. They also carry Brucella, Campylobacter, Cryptosporidium, Giardia, Lyme Disease, Coxiella, Rabies, Salmonella, and Rocky Mountain Spotted Fever, many of which can be transmitted by exposure to their feces or by dog bite. At San Francisco General Hospital, we have seen over the years innumerable dog bites and many of these parasitic and bacterial infections transmitted by dogs” (NPS 2011a, Correspondence 930). Prohibiting dogs from sites or reducing the number and size of areas open to dog walking would result in the elimination or reduction of dog waste, thereby eliminating or reducing the risk to visitors from the presence of dog-related pathogens. In areas where on-leash or off-leash dog walking is permitted, dog walkers would be required to pick up their dogs’ feces immediately and dispose of them in a garbage container. This regulation would be enforced. Assuming compliance with the regulation, the amount of dog waste at each site should decline and would reduce the health and safety risks associated with dog-related pathogens.

Dog Health

Canine distemper is a highly contagious, multi-systemic viral disease found in dogs. Uninfected dogs may contract canine distemper virus through contact with respiratory secretions, fecal material, or urine of infected dogs (Hines 2012, 1). Dogs may contract other illnesses, including dog flu, kennel cough, and parvovirus, from other infected dogs. Other diseases, such as rabies, leptospirosis, and Lyme disease, can be contracted from infected wildlife. Dogs can also get sick from drinking water that has high algae counts (algal blooms) or by ingesting toxic plants. The majority of dogs are vaccinated for diseases such as canine distemper, rabies, and parvovirus. Other illnesses can be easily treatable by local veterinarians.

During the public comment period for the draft plan/EIS, many commenters noted that the reduction of off-leash dog walking and creation of VSCAs that are smaller than current off-leash areas would create overcrowding issues. Commenters felt that crowding dogs into smaller areas for off-leash dog walking, or at local dog parks would result in more dog aggression, with more dogfights and altercations. One commenter stated, “I would like to add that the proposal for restricting the area dogs are allowed to run off leash to certain small areas, such as a portion of Crissy Field, is going to create aggressive dog problems” (NPS 2011a, Correspondence 4479). The preferred alternative would establish multiple VSCAs in five GGNRA sites. The majority of VSCAs would be large enough to accommodate dogs without crowding issues.

Park Staff Health and Safety Impacts

Confrontations between visitors/dog owners and law enforcement staff at the park occurred more frequently in the past as a result of the enforcement of the NPS leash regulation, 36 CFR 2.15, parkwide from 2001 to 2005. When the court decision in 2005 resulted in the GGNRA reestablishing the 1979 Pet Policy, enforcement emphasis changed, resulting in fewer confrontations. Conflicts typically occur when contact with a dog owner is initiated regarding a pet regulation violation (unleashed dogs, failure to pick up waste, aggressive dogs, dogs chasing wildlife, dogs in closed areas, etc.). Conflicts typically involve

verbal abuse, though physical assaults on staff have occurred. Conflicts may result from disagreement or confusion with the regulations and policies by both law enforcement staff (primarily new personnel) and the public. These conflicts have also resulted in increased specific personal complaints about staff members or the park in general. Some complaints were in the third party or written on blogs or dog association websites. Complaints typically were not centered on whether the owner was in violation of the regulation, but rather on the conduct of the ranger or officer and the enforcement position of the park. Consequently, park policy now places law enforcement staff in pairs when such enforcement contacts are necessary. Such conflicts have been more frequent in park areas with high use and elevated conflict levels (e.g., Fort Funston, Crissy Field, and Ocean Beach).

Rescues of both humans and dogs have been necessary at a number of sites throughout the park. Dogs and, at times, their owners have gone over cliff edges and required rescue, putting them and staff rescuers at elevated safety risk; each rescue required a minimum of three staff members. At Fort Funston, a total of 29 violations were issued between 2008 and 2011 for pet rescues (table 26a). This law enforcement data was not collected from 2012 through 2016. In January 2013, a visitor fell approximately 50 feet to the beach while climbing down the cliff face at Fort Funston when trying to retrieve her dog, which was off leash and not under voice control when it went over the edge of the cliff. NPS rangers and San Francisco fire and rescue personnel were able to reach the visitor who was flown to a medical facility by a California Highway Patrol helicopter. The dog, which was 75 feet below the cliff edge, was also rescued. This was the second such rescue that week. Approximately seven or eight dog rescues are performed each year at Fort Funston. Rescues are occasionally necessary at other park sites (e.g., Ocean Beach and Marin Headlands Trails) due to dangerous bluffs and rocks. Most rescues result in short-term effects on health and safety for the public and NPS rescue staff, but the potential for more serious, long-term injury is a possibility. Continuing potential for risk to NPS staff (and visitors) during such rescue operations (falls, bone breaks/sprains, etc.) would pose a risk to health and safety. Overall, health and safety issues for park staff related to dog management in the park include visitor contacts related to pet regulation compliance and potential risks posed by rescues (human and dogs).

Education and Enforcement. During the implementation of an initial education and enforcement period, park Interpretation and law enforcement staff would increase contact with park visitors walking dogs in all areas in this final plan/EIS. The new regulations would be explained, and after the initial education period, warnings or citations would be issued by the law enforcement staff to visitors not in compliance with the new regulations. It is expected that some park visitors would disagree with the new dog management regulations and would argue with NPS staff, resulting in confrontation and possible risk to the safety of park interpretation and law enforcement staff. Unless otherwise stated below, impacts on the health and safety of park staff during this period due to park visitors' potential disagreement with the new regulations would be short term, minor to moderate, and adverse, but would be attenuated as familiarity and compliance with the new regulations occur.

CUMULATIVE HEALTH AND SAFETY IMPACTS COMMON TO ALL ALTERNATIVES

Influences on health and safety in GGNRA could result in alterations of conditions in the park, which could influence the health, safety, and accessibility for visitors and staff in the park and surrounding communities. Alterations to health and safety include encounters with unruly and aggressive dogs, pathogens, and health impacts to dogs and humans.

Encounters with aggressive dogs can occur in areas where dogs are allowed in the parks. These encounters can include aggressive actions that result in injury to health and wellbeing by intimidation, being knocked over, scratches or bites. In the case of bites, many serious microbes can be introduced through dog wounds. Aggressive acts by dogs can lessen the health and safety of park visitors and staff. The introduction of pathogens from dog waste is another serious concern to health and safety that can

introduce many significant bacterial sources. Introduction of waste into water is another risk to health and safety, and swimming in contaminated water can cause illness. Pathogens and bacteria are also a problem associated with urban wildlife waste. Dog health is at risk through the transmission of the highly contagious dog distemper from dog to dog within the park. Other diseases can be transmitted to dogs from contact with infected wildlife. Algae and toxic plants can also pose health risks to dogs.

In addition to the health risks described above, oil spills have occurred and will likely occur in the Pacific Ocean and in San Francisco Bay and have the potential to impact the health and safety of park visitors and staff. On November 7, 2007, approximately 58,000 gallons of bunker fuel spilled from a container ship into the bay, resulting in the largest oil spill in the San Francisco Bay since the Cape Mohican incident in 1996. The health and safety impacts from this spill lasted only a few weeks, especially on the sandy beaches of the park. Impacts to the health and safety of park visitors was mitigated by closing the park beaches during this time and any park staff involved in monitoring the beaches was trained in Hazardous Waste Operations and Emergency Response. Therefore, impacts to the health and safety of park visitors and staff from the oil spill were considered negligible.

Current and reasonably foreseeable future actions positively affecting health and safety in the park are activities that restore and enhance trails and habitats, and provide safe access to resources. These projects include updating and maintaining infrastructure, improvement of trails and walkways, and reestablishment of native plant communities, and fire management plans. These efforts have direct benefits to health and safety. Potentially adverse impacts could occur at Stinson Beach, a swimming beach where nutrients are discharged into groundwater from the septic system providing a risk to human health, as well as other potential health risks in the park. However, efforts to identify mitigations would reduce the potential for impacts. Completed, current, and future projects that will have a beneficial impact on health and safety within the GGNRA sites are listed below and discussed under each alternative as applicable:

- Park stewardship programs that have worked with GGNRA since 2003 on trail rehabilitation and non-native plant removal programs that have resulted in safer and more accessible trails.
- The park *Fire Management Plan* (NPS 2005b) provides benefits to health and safety by the reduction of fire loads, creation of better fire access and egress roads, reduction of overgrown non-native forests, and detailed fire management plans.
- Fort Mason, Baker Beach, Stinson Beach, Battery Spencer, and Kirby Cove (Marin Headlands) have been identified as key sites targeted for increasing accessibility in GGNRA. The project includes site-specific objectives for improving accessibility and the visitor experience at picnic areas, camping areas, overlooks, beaches, restrooms, interpretive and wayfinding signs, and parking and accessible routes to these amenities. Accessibility projects are complete at Fort Mason and Kirby Cove. Beneficial impacts to human health and safety would result from the improvements to accessibility of the sites for visitors with disabilities.
- Trail improvements at Homestead Valley have made the paths safer.
- The *Lower Redwood Creek Floodplain and Salmonid Habitat Restoration* restored channel function, which reduced flooding and reconnected the creek to its floodplain. The project also increased riparian vegetation. The reduction of flooding provided safer conditions for visitors.
- Trail segments have been realigned and degraded areas have been restored near Muir Beach as part of the *Dias Ridge Restoration and Trail Improvement Project*, which now provides safer trail access.
- The *Wetland and Creek Restoration at Big Lagoon, Muir Beach* restored ecological processes, improved habitat for endangered species, reduced flooding along Pacific Way, and enhanced visitor experience and safety through addition of visitor amenities, improved trails and

accessibility and construction of a new pedestrian bridge. The final phase of the project which is to replace the Pacific Way Bridge is undergoing additional study to identify a feasible bridge alternative.

- At the Marin Headlands, transportation infrastructure has provided safer access to the park.
- The *Fort Baker Transportation Plan* is improving access and trails, which will improve safety.
- The *San Francisco Bay Conservation and Development Commission's Tennessee Valley / Manzanita Connector Pathway Project* has upgraded paths to current FRA standards as a multi-use path, and encourages use of the trail as an alternative to vehicular travel.
- The Cavallo Point Lodge at Fort Baker project provided upgrades to infrastructure, the waterfront, and native habitats, which provided greater and safer access to the site.
- The Crissy Field restoration of marshes and dunes has improved habitat and provided better access on beaches, boardwalks, and trails.
- The Doyle Drive replacement project is making structural and seismic improvements to increase the safety of access to Crissy Field and other sites.
- 73,000 tons of landfill debris was unearthed, conveyed to the top of the cliffs, and removed from the site near Baker Beach in 2007 as part of restoration and remediation efforts. Habitat restoration on the bluffs and new trail alignments improved habitat, visitor experience and visitor safety.
- The City of San Francisco and the park are working together for improvements of the esplanade on the northern part of Ocean Beach. These improvements would create a safe boardwalk. The Ocean Beach Master Plan is complete.
- A plan for the addition of an FRA approved restroom and maintenance facilities at Fort Funston will improve safety and access to areas of the site.
- The Mori Point Restoration and Trail Plan has reduced threats to native plants and natural processes by preserving and restoring habitat, and by creating a sustainable trail system that is safer for visitors.
- The CalTrans Devil's Slide Tunnel project constructed two tunnels beneath San Pedro Mountain to provide a dependable highway between Pacifica and Montara, which has provided a much safer access to the San Mateo sites.
- The Highway 1 Safety & Mobility Study is a participatory planning effort conducted by San Mateo County and the Local Government Commission to improve Highway 1 safety and mobility between Half Moon Bay Airport and Devil's Slide. The highway passes sensitive coastline and communities with periods of high pedestrian and bicycle activity, and carries significant commuter and large tourist traffic volumes. With input from residents and stakeholders, a plan was developed that responds to community needs. Beneficial impacts to human health and safety would result from this plan for visitors at Rancho Corral de Tierra.
- The Vista Point Multi-Use Trail project at Fort Baker proposes a multi-use trail connection from the Dana Bowers Vista Point into Fort Baker. This project is currently in planning and design and will improve visitor safety by removing bicyclists from Alexander Avenue and onto a designated bicycle and pedestrian path.

Conclusion. Overall, these past, current, and future projects, whether short-term or long-term, would have a beneficial impact on health and safety for visitors and staff in the park. Dog management alternatives that prohibit dogs or restricts dog walking to on-leash or within a designated VSCA, together with the benefits derived to health and safety by the various restoration and enhancement projects listed

above would provide a cumulative benefit to health and safety in GGNRA. Sites and proposed actions within alternatives that may have a different cumulative impact to health and safety are discussed below.

MARIN COUNTY SITES

Table 37a shows the number and type of dog incidents recorded from 2008 through 2011 at each of the GGNRA sites in Marin County. The data below was taken from law enforcement reports. Dog-related incidents include violations of the leash law, hazardous conditions (includes a dog bite, dog attack, or dog rescue), unattended pet violation, failure to pick up pet excrement, possessing a pet in a closed area, violation of a closed area, and wildlife disturbance. Table 37b shows the number and type of dog incidents recorded from 2012 through 2016 at each of the GGNRA sites in Marin County. Dog-related incidents for these years included animal complaints, dog bites, dog walkers in closed areas, violation of leash laws, dog/wildlife interactions, and resource violations. Many more dog-related violations occur at the park, as suggested by calls and complaints from the public, but are not recorded because they are not observed by law enforcement staff or not reported by the public. Also, the limited law enforcement staff and the distance between each park site affects the frequency of patrols. Law enforcement is responsible for covering approximately 80 miles of non-contiguous park sites. There are approximately nine law enforcement staff members and U.S. Park Police patrolling park sites per shift; therefore, law enforcement must strategize which sites to assign staff to each shift. In addition, many law enforcement staff patrol in pairs when monitoring for pet related compliance. Low use sites and small sites are not as regularly patrolled due to staffing limitations. Approximately 1 percent of law enforcement time is devoted to dog management–related issues.

TABLE 37A. NUMBER AND TYPE OF DOG-RELATED INCIDENTS AT MARIN COUNTY SITES, 2008–2011

	Stinson Beach	Homestead Valley	Alta Trail, Orchard Fire Road, Pacheco Fire Rd	Oakwood Valley	Muir Beach	Rodeo Beach	Marin Headlands Trails	Fort Baker
General Pet Violation	0	0	0	0	1	0	0	0
Hazardous Condition	1	0	0	0	2	4	3	1
Off-Leash Violation	4	0	5	1	9	9	31	52
Pet Excrement	1	0	0	0	1	1	1	0
Possessing Pet in Closed Area	71	0	0	0	5	7	195	4
Unattended Pet	2	0	8	0	0	0	1	0
Violation of Closed Area	5	0	0	0	1	0	13	0
Wildlife Disturbance	0	0	0	0	1	2	1	0
Other	1	0	0	0	4	7	24	3
Total	85	0	13	1	24	30	269	60

Note: Citations for possessing a pet in a closed area and violation of a closed area are used interchangeably on incident reports, but are separate violations; therefore, they were not compiled in this analysis.

TABLE 37B. NUMBER AND TYPE OF DOG-RELATED INCIDENTS AT MARIN COUNTY SITES, 2008–2011

	Stinson Beach	Homestead Valley	Alta Trail, Orchard Fire Road, Pacheco Fire Rd	Oakwood Valley	Muir Beach	Rodeo Beach	Marin Headlands Trails	Fort Baker
Animal Complaint	7	0	3	2	6	13	40	16
Dog Bite	2	0	0	0	1	3	1	5
Dog Walker in Closed Area	5	0	12	3	0	1	56	1
Violation of Leash Law	36	0	3	2	10	9	98	29
Dog/Wildlife Interaction	0	0	0	0	0	0	1	1
Resource Violation	11	0	1	1	1	0	36	3
Total	61	0	19	8	18	26	232	55

Note: Citations for possessing a pet in a closed area and violation of a closed area are used interchangeably on incident reports, but are separate violations; therefore, they were not compiled in this analysis.

Stinson Beach

Alternative A: No Action. Dogs are currently allowed on leash in the parking lots and picnic areas at Stinson Beach. Dogs are not allowed on the beach itself, because it is a designated swimming beach. Visitor use in this area is considered high on weekends at the beach and low to moderate on weekdays (swimmers and beachgoers) and low to high in the parking lot and picnic areas. Between 2008 and 2011, a total of 85 pet-related incidents were recorded in the form of warnings and citations by law enforcement staff (table 37a). Pet-related violations at this site included 75 cases of visitors walking dogs in closed areas (the beach), 4 leash law violations, 2 unattended pet violations, 1 dog bite/attack, and 1 pet excrement violation (table 37a). Between 2012 and 2016, a total of 61 pet-related incidents were recorded (table 37b). The majority of these violations were for not complying with leash laws (table 37b). Many additional violations occurred on the beach and were recorded by the Stinson Beach lifeguards. Approximately 60 percent of violations recorded by lifeguards were for having dogs on the beach which is designated a no dog area.

Under alternative A, current conditions would continue. Impacts on the health and safety of park visitors and staff would be long term, moderate, and adverse. Some visitors would continue to walk their dogs under voice control along the busy beach area. Unruly or aggressive dogs would cause a threat to beachgoers and also to park staff present at the beach. The chance of dogs jumping up on or knocking down small children would still exist. The presence of pet excrement in the picnic area where people are cooking and eating, may also contribute to adverse impacts on human health and safety.

Under alternative A, no permit system exists for dog walking. At Stinson Beach, commercial dog walking is uncommon. As a result, commercial dog walking under alternative A is expected to have a negligible impact on human health and safety because the change from current conditions would not be substantially measurable.

Cumulative Impacts. Projects and actions in and near Stinson Beach were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on human health and safety at or in the vicinity of Stinson Beach.

Currently, nutrients are discharged into groundwater at Stinson Beach from septic tanks, with tidal variations affecting this discharge (Sieyes et al. 2008, 1). Since Stinson Beach is used as a swimming beach, the addition of nutrients could create adverse impacts on human health and safety. The impacts resulting from the past oil spill would add little to the cumulative impacts on health and safety since those impacts were found to be negligible. Actions proposed in the park's *Fire Management Plan* would improve personal safety at Stinson Beach by reducing fuel loads between the park and adjacent communities and by providing for safe fire road access and egress routes (NPS 2005b, 62). This action would result in beneficial impacts on human health and safety.

Site improvements at Stinson Beach include providing parking, beach access, picnic access, and restroom access which are currently underway. The park is also installing handicapped access routes to public transit, cafes, beaches, and group and individual picnic sites. Beach access would be to the high tide mark with an area to store beach wheel chairs. Handicapped accessible routes are currently being installed from the parking lot to each activity or key experience at Stinson Beach. Impacts to human health and safety would be beneficial.

Under alternative A, the long-term, moderate, adverse impacts to the health and safety of staff and visitors from dogs at Stinson Beach, together with effects of the projects mentioned above were considered. There are a combination of adverse and beneficial actions in and around Stinson Beach, when combined together these actions would balance out resulting in negligible impacts. Therefore, the cumulative analysis for this park site will basically focus on the results of the impact analysis for each alternative. Cumulative impacts to the health and safety of staff and visitors from dogs under this alternative are expected to be long-term, moderate, and adverse.

STINSON BEACH ALTERNATIVE A CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term moderate adverse impacts	Continued threat to health and safety from noncompliant dogwalkers with uncontrolled dogs and confrontational events would exist	Long-term moderate adverse cumulative impacts	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Alternative B would have the same dog walking restrictions as alternative A: on-leash dog walking would be allowed in the parking lots and picnic areas. Dogs are not allowed on the beach itself, because it is a designated swimming beach.

An improvement to human health and safety would occur at this site due to the initial increased education and enforcement period after the new dog regulation becomes effective; however, the chance of visitors or staff encountering an unruly or aggressive leashed dog would still exist. The risk of dog bites or physical injuries would still exist; therefore, impacts on human health and safety would be long term, minor, and adverse.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person with no permit required and all dogs must be on a leash. Since commercial dog walking is not common at Stinson Beach is likely that commercial dog walkers would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Stinson Beach considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor adverse impacts associated with alternative B of the dog management plan, cumulative impacts to human health and safety would be long-term, minor, and adverse.

STINSON BEACH ALTERNATIVE B CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor adverse impacts, assuming compliance	Contact with unruly or aggressive dogs would still be possible; risk of dog bites or other injuries could occur	Long-term, minor, and adverse cumulative impacts	Beneficial, assuming compliance

Alternative C: Emphasis on Multiple Use – Balanced by County. Alternative C would have the same dog walking restrictions as alternative B and impacts to human health and safety would be the same: long term, minor, and adverse.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Stinson Beach is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking at Stinson Beach is not common and all dog walkers would be limited to three dogs on a leash, it is likely that commercial dog walking would have negligible impacts on human health and safety.

Cumulative Impacts. Cumulative impacts to human health and safety would be the same as alternative B: long-term, minor, and adverse.

STINSON BEACH ALTERNATIVE C CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor adverse impacts, assuming compliance	Contact with unruly or aggressive dogs is still possible; risk of dog bites or other injuries could occur	Long-term, minor, and adverse cumulative impacts	Beneficial, assuming compliance

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, no dog walking would be allowed in the parking lot and picnic areas at Stinson Beach. Dogs are not allowed on the beach itself, because it is a designated swimming beach.

The elimination of dogs from this site would reduce the chances of dog bites or injuries occurring. The chance of visitors or park staff coming into contact with an unruly or aggressive dog would not exist. Additionally, restricting dogs from the site would eliminate the risk of exposure to pathogens or diseases associated with dog waste. Being able to walk a dog in the park helps maintain a healthy lifestyle. Restricting dog access from Stinson Beach could adversely impact the health of some visitors as they would no longer be able to exercise at this location. However, dog walking would be available at other nearby park sites. Overall, impacts to the health and safety of park staff and visitors would be negligible.

Since dogs would not be allowed at this site, there would be no impact from commercial dog walkers on human health and safety.

Cumulative Impacts. Projects and actions in and near Stinson Beach considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative D of the dog management plan, cumulative impacts to human health and safety would be negligible.

STINSON BEACH ALTERNATIVE D CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impact, assuming compliance	Dogs would be prohibited in picnic areas and parking lots	Negligible cumulative impacts	Beneficial, assuming compliance

Alternative E: Most Dog Walking Access / Most Management Intensive. Alternative E would have the same dog walking restrictions as alternative B and impacts to human health and safety would be the same: long term, minor, and adverse.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. Stinson Beach is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking is not common at Stinson Beach, it is expected that the new permit regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Cumulative impacts to human health and safety would be the same as alternative B: long-term, minor, and adverse.

STINSON BEACH ALTERNATIVE E CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor adverse impacts, assuming compliance	Contact with unruly or aggressive dogs would still be possible; risk of dog bites or other injuries could exist	Long-term, minor, and adverse cumulative impacts	Beneficial, assuming compliance

Alternative F: Preferred Alternative. The preferred alternative would allow on-leash dog walking for up to three dogs in the parking lots and two picnic areas. No dog walking would be permitted within the picnic area between the south and overflow parking areas. Dog walking would not be allowed on the beach since it is a designated swimming beach. An on-leash dog walking path would be created to allow access to Upton Beach (an adjacent, Marin County-managed beach that allows on-leash dog walking) from the north corner of the north parking lot.

An improvement to human health and safety would occur at this site due to the initial increased education and enforcement period after the new dog regulation becomes effective; however, the chance of visitors or staff encountering an unruly or aggressive leashed dog would still exist. The risk of dog bites or physical injuries would still exist; therefore, impacts on human health and safety would be long term, minor, and adverse.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be granted at Stinson Beach, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Stinson Beach, it is expected that the new permit regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Stinson Beach were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on human health and safety at or in the vicinity of Stinson Beach.

Currently, nutrients are discharged into groundwater at Stinson Beach from septic tanks, with tidal variations affecting this discharge (Sieyes et al. 2008, 1). Since Stinson Beach is used as a swimming beach, the addition of nutrients could create adverse impacts on human health and safety. The impacts resulting from the past oil spill would add little to the cumulative impacts on health and safety since those impacts were found to be negligible. Actions proposed in the park’s *Fire Management Plan* would improve personal safety at Stinson Beach by reducing fuel loads between the park and adjacent communities and by providing for safe fire road access and egress routes (NPS 2005b, 62). Site improvements that are currently underway at Stinson Beach include providing parking, beach access, picnic access, and restroom access. The park is currently installing handicapped access routes to public transit, cafes, beaches, and group and individual picnic sites. The beach access would be to the high tide mark with an area to store beach wheel chairs. Handicapped accessible routes are currently being installed from the parking lot to each activity or key experience at Stinson Beach. These actions would result in beneficial impacts on human health and safety.

Under alternative C, the long-term, minor, adverse impacts to the health and safety of staff and visitors from dogs at Stinson Beach, together with effects of the projects mentioned above under alternative A were considered. There are a combination of adverse and beneficial actions in and around Stinson Beach, when combined together these actions would balance out resulting in negligible impacts. Therefore, the cumulative analysis for this park site will basically focus on the results of the impact analysis for this alternative. Cumulative impacts to the health and safety of staff and visitors from dogs under this alternative are expected to be long-term, minor, and adverse.

STINSON BEACH PREFERRED ALTERNATIVE F CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor adverse impacts, assuming compliance	Contact with unruly or aggressive dogs would still be possible; risk of dog bites or other injuries could exist	Long-term, minor, and adverse cumulative impacts	Beneficial, assuming compliance

Homestead Valley

Alternative A: No Action. Dogs are currently allowed on leash or under voice control throughout the entire Homestead Valley site. Visitor use at this site is considered low, and the site is mainly used by local residents; dog walking use is also considered low at this site (table 10). In addition, between 2008 and 2016 there were no pet-related violations issued at this site (tables 37a and 37b).

Under the no-action alternative, conditions would remain the same at Homestead Valley. Since the site is a low use area and there have been no pet-related violations, negligible impacts on the health and safety of park visitors and staff would occur under this alternative. However, the chances of an individual being injured in a dog-related incident would still exist.

Under alternative A, no permit system exists for dog walking. At Homestead Valley, commercial dog walking is uncommon. Therefore, commercial dog walking would have negligible impact to human health and safety.

Cumulative Impacts. Projects and actions in and near Homestead Valley were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on human health and safety at or in the vicinity of Homestead Valley.

In Homestead Valley, the park is planning trail improvements in the future to formalize and designate some trails to connect to the existing neighborhood trails, and beneficial impacts on human health and safety would be expected due to the establishment of these new, safe trails. Actions proposed in the park's *Fire Management Plan* would improve personal safety at Homestead Valley by reducing the amount of hazardous fuel buildup in close proximity to residential neighborhoods, also benefiting human health and safety (NPS 2005b, 61). No actions have been identified that are currently having, or have the potential to have, adverse impacts on human health and safety at or in the vicinity of Homestead Valley.

Under alternative A, the negligible impacts to the health and safety of park staff and visitors from dogs at Homestead Valley, together with effects of the projects mentioned above were considered. The beneficial effects from the trail improvements at the site and from actions proposed in the park's *Fire Management Plan* (NPS 2005b) along with the negligible impacts from alternative A would result in negligible cumulative impact.

HOMESTEAD VALLEY ALTERNATIVE A CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts	Site experiences low use; few pet-related violations or incidents would be likely	Negligible cumulative impacts	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Under alternative B, on-leash dog walking would be allowed along the Homestead Fire Road and along the neighborhood connector trails (Homestead Trail and Homestead Summit Trail) that would be designated in the future.

Impacts on the health and safety of park visitors and staff would be expected to be negligible. No pet-related violations have been recorded at the site; however, the chances of an individual being injured in a dog-related incident would still exist. Requiring dogs to be walked on leash would reduce the chances of incidents occurring, since dog walkers would have more control over their dogs.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person with no permit required. Since dog walking activity at Homestead Valley is low and commercial dog walking is not common at this site, it is likely that the new permit regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Homestead Valley considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative B of the dog management plan, cumulative impacts to human health and safety would be negligible.

HOMESTEAD VALLEY ALTERNATIVE B CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Site experiences low use; few pet-related violations or incidents would occur	Negligible cumulative impacts	No change, assuming compliance

Alternative C: Emphasis on Multiple Use – Balanced by County. Alternative C would have the same dog walking restrictions as alternative B and impacts to human health and safety would be the same: negligible.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Homestead Valley is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Homestead Valley is not common, it is expected that the new regulation would have a negligible impact on human health and safety.

Cumulative Impacts. Cumulative impacts to human health and safety would be the same as alternative B: negligible.

HOMESTEAD VALLEY ALTERNATIVE C CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Site experiences low use; few pet-related violations or incidents would occur	Negligible cumulative impacts	No change, assuming compliance

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, on-leash dog walking would be allowed along the Homestead Fire Road. No dogs would be allowed on neighborhood connector trails.

Negligible impacts on the health and safety of park visitors and staff would be expected. The chance of an individual being injured in a dog-related incident would still exist; however, it would be unlikely to happen since no incidents have been recorded in the past.

No commercial dog walking would be allowed and no permits to walk more than three dogs would be issued under alternative D. There would be no impact on human health and safety from commercial dog walking.

Cumulative Impacts. Projects and actions in and near Homestead Valley considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative D of the dog management plan, cumulative impacts to human health and safety would be negligible.

HOMESTEAD VALLEY ALTERNATIVE D CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Site experiences low use; few pet-related violations or incidents would occur	Negligible cumulative impacts	No change, assuming compliance

Alternative E: Most Dog Walking Access / Most Management Intensive. Alternative E would have the same dog walking restrictions as alternative B and impacts to human health and safety would be the same: negligible.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Homestead Valley is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Homestead Valley is not common, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Cumulative impacts to human health and safety would be the same as alternative B: negligible.

HOMESTEAD VALLEY ALTERNATIVE E CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Site experiences low use; few pet-related violations or incidents would occur	Negligible cumulative impacts	No change, assuming compliance

Alternative F: Preferred Alternative. The preferred alternative includes on-leash dog walking for up to three dogs on Homestead Fire Road from Lattie Lane to Panoramic Highway, on Homestead Summit Trail from Homestead Fire Road to the junction with Homestead Trail at Four Corners, and on the Homestead Trail from Four Corners to the GGNRA boundary. In addition, on-leash dog walking would also be available on the Eagle Trail to allow a loop trail.

Impacts on the health and safety of park visitors and staff would be expected to be negligible. No pet-related violations have been recorded at the site; however, the chance of an individual being injured in a dog-related incident would still exist. Requiring dogs to be walked on leash would reduce the chances of incidents occurring, since dog walkers would have more control over their dogs.

Under the preferred alternative, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Homestead Valley is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Homestead Valley is not common, it is likely that the new regulation would have a negligible impact on human health and safety.

Cumulative Impacts. Projects and actions in and near Homestead Valley were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on human health and safety at or in the vicinity of Homestead Valley.

In Homestead Valley, the park is planning trail improvements in the future to formalize and designate some trails to connect to the existing neighborhood trails, and beneficial impacts would be expected on human health and safety due to the establishment of these new, safe trails. Actions proposed in the park’s *Fire Management Plan* would improve personal safety at Homestead Valley by reducing the amount of hazardous fuel buildup in close proximity to residential neighborhoods, also benefiting human health and safety (NPS 2005b, 61). No actions have been identified that are currently having, or have the potential to have, adverse impacts on human health and safety at or in the vicinity of Homestead Valley.

Under the preferred alternative, the negligible impacts to the health and safety of park staff and visitors from dogs at Homestead Valley, together with effects of the projects mentioned above were considered. The beneficial effects from the trail improvements at the site and from actions proposed in the park’s *Fire Management Plan* (NPS 2005b) along with the negligible impacts from the preferred alternative would result in negligible cumulative impact.

HOMESTEAD VALLEY PREFERRED ALTERNATIVE F CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Site experiences low use; few pet-related violations or incidents would occur	Negligible cumulative impacts	No change, assuming compliance

Alta Trail/Orchard Fire Road/Pacheco Fire Road

Alternative A: No Action. Dogs are currently allowed on leash or under voice control from Marin City to Oakwood Valley on Alta Trail, Orchard Fire Road and Pacheco Fire Road. This site has high use by dog walkers, particularly commercial dog walkers. Other uses, such as running, bicycling, and hiking, are considered low to moderate at the site (table 10). Between 2008 and 2011, a total of 13 pet-related incidents were recorded at this site. Pet-related violations included 8 cases of visitors walking dogs in closed areas and 5 leash law violations (table 37a). No dog bites/attacks, hazardous conditions, unattended pet, or pet excrement violations were recorded during the same period. Between 2012 and 2016, a total of 19 pet-related incidents were recorded at this site (table 37b). The majority of these violations were for dog walkers in closed areas (table 37b). During the public comment period for the draft plan/EIS, the public described their experiences using Alta Trail. One commenter stated, “The trail a couple of blocks from my house, Alta, has for years been used heavily by dog walkers who arrive with a large number of dogs and allow them to roam off-leash. I love dogs, however the sight of a large pack of off-leash dogs coming towards me frankly makes me nervous. Once, I was completely surrounded by barking dogs while carrying my baby. The dog walker, in the distance, called the dogs, but they were slow to obey. My husband avoids the trail now, too, since an off-leash dog bit him” (NPS 2011a, Correspondence 4200).

Under alternative A, impacts on the health and safety of park visitors and park staff would be long term, minor, and adverse. Dog walking under voice control in a heavily used area could create unsafe conditions. Dog-related accidents, including dog bites and attacks, have the potential to occur under these conditions. Dogs walked under voice and sight control could also jump up on other visitors and potentially knock them down.

Under alternative A, no permit system exists for dog walking. However, at Alta Trail, Orchard Fire Road, and Pacheco Fire Road, commercial dog walking is a high use activity. Impacts on human health and safety from commercial dog walkers would continue to be long term, minor, and adverse, since this is a high-use site and there are typically a high number of dogs walked per person.

Cumulative Impacts. Projects and actions in and near Alta Trail, Orchard Fire Road, and Pacheco Fire Road were considered for the cumulative impacts analysis (appendix K). Mainly, actions included in the park's *Fire Management Plan* would improve personal safety throughout the park by reducing fuel conditions along access roads and reducing the extensive stands of non-native evergreen forest in close proximity to developed and populated areas (NPS 2005b, 61). This action would result in beneficial impacts on human health and safety.

Under alternative A, the long-term minor adverse impacts to the health and safety of park staff and visitors from dogs at Alta Trail, Orchard Fire Road, and Pacheco Fire Road, together with effects of the action mentioned above were considered. The benefits to the health and safety of park staff and visitors from actions included in the park's *Fire Management Plan* (NPS 2005b) are not expected to reduce the adverse impact of this alternative; therefore the cumulative analysis for this park site will focus on the results of the impact analysis for each alternative. The beneficial effects from actions included in the park's *Fire Management Plan* along with the long-term minor adverse impacts from the preferred alternative would result in a negligible to long-term minor and adverse cumulative impacts.

ALTA TRAIL/ORCHARD FIRE ROAD/PACHECO FIRE ROAD ALTERNATIVE A CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor adverse impacts	Heavy use by visitors walking dogs would provide opportunity for pet-related incidents	Negligible to long-term, minor, adverse cumulative impacts	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Under alternative B, on-leash dog walking would be allowed on the Alta Trail to the Orchard Fire Road, and on the Orchard and Pacheco fire roads that connect to Marin City.

Impacts on human health and safety would be negligible. Since dogs would no longer be under voice control, the chances of dog-related injuries occurring would be minimized, but would still exist. Individuals may encounter leashed unruly or aggressive dogs.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person with no permit required. Since commercial dog walking activities at this site is common, allowing only three dogs per walker and requiring dogs to be on leash may benefit human health and safety by reducing the number of dog-related injuries. Commercial dog walkers would have fewer dogs and would have more control of their dogs.

Cumulative Impacts. Projects and actions in and near Alta Trail, Orchard Fire Road, and Pacheco Fire Road considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative B of the dog management plan, cumulative impacts to human health and safety would be negligible.

ALTA TRAIL/ORCHARD FIRE ROAD/PACHECO FIRE ROAD ALTERNATIVE B CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Pets on leash would be restricted and controllable, reducing the risk for pet-related incidents with visitors and park staff	Negligible cumulative impacts	Beneficial, assuming compliance

Alternative C: Emphasis on Multiple Use – Balanced by County. Alternative C would have the same dog walking restrictions as alternative B and impacts to human health and safety would be the same: negligible.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. Any dog walker, commercial or private, can obtain a permit to walk more than three dogs with a limit of six dogs on leash and the permit may restrict use by time and area. Permits would be allowed at Alta Trail, Orchard Fire Road, and Pacheco Fire Road, although permit holders would be allowed only to the intersection with the Orchard Fire Road. Adverse impacts to health and safety from permit holders are expected to increase under this alternative due to the increase to six dogs. Since commercial dog walking is high at this site impacts to health and safety would be long-term, minor, and adverse.

Cumulative Impacts. Cumulative impacts to human health and safety would be the same as alternative B: negligible.

ALTA TRAIL/ORCHARD FIRE ROAD/PACHECO FIRE ROAD ALTERNATIVE C CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Pets on leash would be restricted and controllable, reducing the risk for pet-related incidents with visitors and park staff	Negligible cumulative impacts	Beneficial, assuming compliance

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, dogs would no longer be allowed on the Alta Trail, Orchard Fire Road, or Pacheco Fire Road.

The elimination of dogs from this site would reduce the chances of dog bites or injuries occurring. The chance of visitors or park staff coming into contact with an unruly or aggressive dog would not exist. Additionally, restricting dogs from the site would eliminate the risk of exposure to pathogens or diseases associated with dog waste. Being able to walk a dog in the park helps maintain a healthy lifestyle. Restricting dog access from this site could adversely impact the health of some visitors as they would no longer be able to exercise at this location. In addition, some visitors would be adversely impacted by the dog restriction because they would not feel safe recreating at the site without the presence of a dog. However, dog walking would be available at other nearby park sites. Overall, impacts to the health and safety of park staff and visitors would be negligible.

Since dogs would not be allowed at Alta Trail, Orchard Fire Road, or Pacheco Fire Road, there would be no impact from commercial dog walkers on human health and safety.

Cumulative Impacts. Projects and actions in and near Alta Trail, Orchard Fire Road, and Pacheco Fire Road considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative D of the dog management plan, cumulative impacts to human health and safety would be negligible.

ALTA TRAIL/ORCHARD FIRE ROAD/PACHECO FIRE ROAD ALTERNATIVE D CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impact, assuming compliance	Dogs would be prohibited on trails and fire roads at the site	Negligible cumulative impacts	Beneficial, assuming compliance

Alternative E: Most Dog Walking Access / Most Management Intensive. Under alternative E, on-leash dog walking would be allowed on the Alta Trail to the junction with Morning Sun Trail, and on the Orchard and Pacheco fire roads that connect to Marin City.

Impacts on human health and safety would be negligible. Since dogs would no longer be under voice control, the chances of dog-related injuries occurring would be minimized, but would still exist. Individuals may encounter leashed unruly or aggressive dogs.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. Any dog walker, commercial or private, can obtain a permit to walk more than three dogs with a limit of six dogs on leash and the permit may restrict use by time and area. Permits would be allowed at Alta Trail, Orchard Fire Road, and Pacheco Fire Road, however permit holders would be allowed only as far as the Orchard Fire Road. Adverse impacts to health and safety from permit holders are expected to increase under this alternative due to the increase to six dogs. Since commercial dog walking is high at this site impacts to health and safety would be long-term, minor, and adverse.

Cumulative Impacts. Projects and actions in and near Alta Trail, Orchard Fire Road, and Pacheco Fire Road considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative E of the dog management plan, cumulative impacts to human health and safety would be negligible.

ALTA TRAIL/ORCHARD FIRE ROAD/PACHECO FIRE ROAD ALTERNATIVE E CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Pets on leash would be restricted and controllable, reducing the risk for pet-related incidents with visitors and park staff	Negligible cumulative impacts	Beneficial, assuming compliance

Alternative F: Preferred Alternative. The preferred alternative would allow on-leash dog walking on the Alta Trail from the entrance at Donahue Street to the junction with the Morning Sun Trail and on the Orchard and Pacheco Fire Roads from the Alta Trail to the park boundary.

Impacts on human health and safety would be negligible. Since dogs would no longer be under voice control, the chances of dog-related injuries occurring would be minimized, but would still exist. Individuals may encounter leashed unruly or aggressive dogs.

Under the preferred alternative, all dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. Any dog walker, commercial or private, can obtain a permit to walk more than three dogs with a limit of six dogs on leash and the permit may restrict use by time and area. Permits would be allowed at Alta Trail, Orchard Fire Road, and Pacheco Fire Road, however, permit holders would only be allowed as far as the intersection with Orchard Fire Road. Adverse impacts to health and safety from permit holders are expected to increase under this alternative due to the increase to six dogs. Since commercial dog walking is high at this site impacts to health and safety would be long-term, minor, and adverse.

Cumulative Impacts. Projects and actions in and near Alta Trail, Orchard Fire Road, and Pacheco Fire Road were considered for the cumulative impacts analysis (appendix K). Mainly, actions included in the park’s *Fire Management Plan* would improve personal safety at Alta Trail, Orchard Fire Road, and Pacheco Fire Road by reducing fuel conditions along access roads and the extensive stands of non-native evergreen forest in close proximity to developed and populated areas (NPS 2005b, 61). This action would result in beneficial impacts on human health and safety.

Under the preferred alternative, the negligible impacts to the health and safety of park staff and visitors from dogs at Alta Trail, Orchard Fire Road, and Pacheco Fire Road, together with effects of the action mentioned above were considered. The benefits to the health and safety of park staff and visitors from actions included in the park’s *Fire Management Plan* (NPS 2005b) along with the negligible impacts from the preferred alternative would result in negligible cumulative impacts.

ALTA TRAIL/ORCHARD FIRE ROAD/PACHECO FIRE ROAD PREFERRED ALTERNATIVE F CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Pets on leash would be restricted and controllable, reducing the risk for pet-related incidents with visitors and park staff	Negligible cumulative impacts	Beneficial, assuming compliance

Oakwood Valley

Alternative A: No Action. Under alternative A, dogs are currently allowed under voice control or on leash on the Oakwood Valley Fire Road and Oakwood Valley Trail from junction with Fire Road to junction with Alta Trail, and on leash on the Oakwood Valley Trail from trailhead to junction with Oakwood Valley Fire Road. Visitors in this area are mostly local hikers, runners, and dog walkers, and dog walking is considered a moderate use activity at this site (table 10). Between 2008 and 2011, one pet-related incident was recorded at this site. This violation was a case of a visitor walking a dog in a closed area (table 37a). Between 2012 and 2016, 8 violations were recorded (table 37b). These included animal complaints, dog walkers in closed areas, violation of leash laws, and a resource violation (table 37b). No leash law, dog bites/attacks, hazardous conditions, unattended pet, or pet excrement violations were recorded during the same period of time.

Even though this site has moderate use by dog walkers (primarily by local dog walkers), there are almost no violations at this site, thus impacts on the health and safety of visitors and staff under alternative A

would be negligible. There is a chance that visitors or staff might encounter an unruly or aggressive dog, even though no violations occurred between 2008 and 2011. Health and safety conditions at the site would likely remain the same.

Under alternative A, no permit system exists for dog walking. At Oakwood Valley, commercial dog walking is uncommon. Therefore, commercial dog walking would have a negligible impact on human health and safety.

Cumulative Impacts. Projects and actions in and near Oakwood Valley were considered for the cumulative impacts analysis (appendix K). Mainly, the actions included in park's *Fire Management Plan* would improve personal safety at Oakwood Valley by maintaining low fuel conditions and adequate fire roads access and egress particularly along the residential community interface (NPS 2005b, 62). This action would result in beneficial impacts on human health and safety.

Under alternative A, the negligible impacts to the health and safety of park staff and visitors from dogs at Oakwood Valley, together with effects of the action mentioned above were considered. The beneficial effects from actions included in the park's *Fire Management Plan* (NPS 2005b) along with the negligible impacts from alternative A would result in negligible cumulative impacts.

OAKWOOD VALLEY ALTERNATIVE A CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts	Site experiences low and local use; few pet-related violations or incidents would be likely	Negligible cumulative impacts	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Under alternative B, on-leash dog walking would be allowed on Oakwood Valley Fire Road and on the Oakwood Valley Trail to the junction of the trail and fire road.

Negligible impacts on the health and safety of park visitors and staff would be expected. This site is not highly used, and most use is by local dog walkers. The chance of visitors or staff encountering an unruly or aggressive dog could exist; however, since only one violation has been recently documented, effects on health and safety would be insignificant in comparison to current conditions. As a result, effects on human health and safety under alternative B are expected to be negligible.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person with no permit required. Since commercial dog walking is not common at Oakwood Valley, it is likely that alternative B would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Oakwood Valley considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative B of the dog management plan, cumulative impacts to human health and safety would be negligible.

OAKWOOD VALLEY ALTERNATIVE B CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Few pet-related violations or incidents would be expected	Negligible cumulative impacts	No change, assuming compliance

Alternative C: Emphasis on Multiple Use – Balanced by County. For alternative C, a VSCA is proposed for walking under voice control or on leash on the Oakwood Valley Fire Road to the junction with Oakwood Valley Trail. The VSCA would include double gates at both ends (to separate this use from other users of the site) and continuous fencing to protect sensitive habitat. On-leash dog walking is proposed on Oakwood Valley Trail from the junction with the Oakwood Valley Fire Road to a new gate at Alta Trail.

Impacts on the health and safety of park staff and visitors would be negligible. This site is moderately used by dog walkers, and mostly by local dog walkers. Even though having dogs under voice and sight control in a portion of the site (VSCA) may increase the risk of pet-related incidents occurring, impacts would be expected to be negligible, based on past data and the addition of fencing and double gates.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Oakwood Valley is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Oakwood Valley is not common, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Oakwood Valley considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative C of the dog management plan, cumulative impacts to human health and safety would be negligible.

OAKWOOD VALLEY ALTERNATIVE C CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Site experiences low and local use; few pet-related violations or incidents would be likely	Negligible cumulative impacts	No change, assuming compliance

Alternative D: Most Protective of Resource Protection and Visitor Safety. Alternative D would have the same dog walking restrictions as alternative B and impacts to human health and safety would be the same: negligible.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D. There would be no impact on human health and safety from commercial dog walking.

Cumulative Impacts. Cumulative impacts to human health and safety would be the same as alternative B: negligible.

OAKWOOD VALLEY ALTERNATIVE D CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Site experiences low and local use; few pet-related violations or incidents would be likely	Negligible cumulative impacts	No change, assuming compliance

Alternative E: Most Dog Walking Access / Most Management Intensive. Alternative E would allow on-leash dog walking in the same areas as alternative C, which includes a VSCA for walking under voice and on leash along Oakwood Valley Fire Road to the junction with Oakwood Valley Trail. The VSCA would have double gates at both ends (to separate this use from other visitors to the site), but unlike alternative C would have non-continuous fencing only where needed to protect sensitive habitat.

Impacts on human health and safety would be the same as alternative C: negligible.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Oakwood Valley is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Oakwood Valley is not common, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Cumulative impacts to human health and safety would be the same as alternative C: negligible.

OAKWOOD VALLEY ALTERNATIVE E CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Site experiences low and local use; few pet-related violations or incidents would be likely	Negligible cumulative impacts	No change, assuming compliance

Alternative F: Preferred Alternative. On-leash dog walking would be allowed on the Oakwood Valley Fire Road and on the Oakwood Valley Trail from the junction with the fire road to the junction with the Alta Trail. On-leash dog walking would also be allowed on the Rhubarb Trail from the access path from the Tamalpais Community Service District property at the park boundary east to Tennessee Valley Road.

Negligible impacts on the health and safety of park visitors and staff would be expected. This site is not highly used, and most use is by local dog walkers. The chance of visitors or staff encountering an unruly or aggressive dog could exist. However, since only one violation has been recently documented, effects on health and safety would be insignificant in comparison to current conditions. As a result, effects on human health and safety under alternative F are expected to be negligible.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Oakwood Valley is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Oakwood Valley is not common, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Oakwood Valley were considered for the cumulative impacts analysis (appendix K). Mainly, the park’s *Fire Management Plan* would improve personal safety at Oakwood Valley by maintaining low fuel conditions and adequate fire road access and egress, particularly along the residential community interface (NPS 2005b, 62). This action would result in beneficial impacts on human health and safety.

Under the preferred alternative, the negligible impacts to the health and safety of park staff and visitors from dogs at Oakwood Valley, together with effects of the action mentioned above were considered. The beneficial effects from actions included in the park’s *Fire Management Plan* (NPS 2005b) along with the negligible impacts from the preferred alternative would result in negligible cumulative impacts.

OAKWOOD VALLEY PREFERRED ALTERNATIVE F CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Site experiences low and local use; few pet-related violations or incidents would be likely	Negligible cumulative impacts	No change, assuming compliance

Muir Beach

Alternative A: No Action. Currently, dogs are allowed on leash or under voice control along the beach and on leash on the path/bridge to the beach and along the Muir Beach Trail. Dogs are also restricted to being on-leash in the parking area. The lagoon and creek are currently closed to dogs. Visitor use at this site is considered high on weekends and moderate to high on weekdays, with the majority of visitors being local beachgoers or hikers. Dog walking is considered a low to moderate use during the non-summer season. Between 2008 and 2011, a total of 24 pet-related incidents were recorded at this site. Pet-related violations included 9 leash law violations, 6 cases of visitors walking dogs in closed areas, 2 dog bites/attacks, and 1 pet excrement violation (table 37a). No hazardous conditions or unattended pet violations were documented at this site between 2008 and 2011 (table 37a). Between 2012 and 2016, a total of 8 violations were recorded with the majority of these for violation of a leash law and animal complaints (table 37b).

Under the no-action alternative, dogs would continue to be allowed on leash or under voice control on the beach and on the path/boardwalk to the beach. Dogs would be restricted to a leash in the parking area. Impacts on visitor and staff human health and safety would be long term, minor, and adverse. The percentage of visitors walking dogs at this site ranges from low to high. Staff and visitors have been involved in two hazardous conditions/pet rescues at this site. This type of violation would be expected to continue under this alternative. In addition, there would be a chance of visitors and staff encountering uncontrolled aggressive or unruly dogs; two dog bites have been recorded in the past four years (table 37a).

Under alternative A, no permit system exists for dog walking. At Muir Beach, commercial dog walking is uncommon. Therefore, commercial dog walking would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Muir Beach were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on health and safety at or in the vicinity of Muir Beach.

The *Dias Ridge Restoration and Trail Improvement Project* realigned trail segments and restored degraded areas on the ridge above Muir Beach (NPS 2016, 1). At Muir Beach, the *Lower Redwood Creek Interim Flood Reduction Measures and Floodplain Channel Restoration Project* was completed in July 2007 to help reduce flooding on Pacific Way. Another project completed at this site, the *Wetland and Creek Restoration at Big Lagoon, Muir Beach*, included wetland and creek restoration at the tidal lagoon (NPS 2009j). The project restored a functional, self-sustaining ecosystem that re-created habitat for special-status species and reduced flooding on Pacific Way. The park's *Fire Management Plan* would reduce the overgrowth of non-native evergreens and other fuel loads along critical access or egress routes and developed areas (NPS 2005b, 62). These actions would result in beneficial impacts on human health and safety at this site. The impacts resulting from the past oil spill would add little to the cumulative impacts on health and safety since those impacts were found to be negligible.

The long-term, minor, adverse impacts to the health and safety of park staff and visitors under alternative A were considered together with effects of the projects mentioned above. The beneficial effects from the restoration projects and the actions from actions included in the park's *Fire Management Plan* (NPS 2005b) should reduce some of the adverse impacts from alternative A. Therefore, cumulative impacts to the health and safety of park staff and visitors under this alternative are expected to be negligible.

MUIR BEACH ALTERNATIVE A CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor adverse impacts	Hazardous conditions/pet rescues would be expected to continue putting dogs, pet owners/ walkers, and NPS staff at risk	Negligible cumulative impacts	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Under alternative B, on-leash dog walking would be allowed on the beach, on the bridge/path to the beach, in the parking area, and on the proposed Muir Beach Trail. The lagoon and creek would be closed to dogs. Negligible impacts on the health and safety of park visitors and staff would be expected to occur. The chance of individuals encountering uncontrolled aggressive or unruly dogs would exist; however, the chance of this occurring would be negligible since dogs would be required to be on leash. Having dogs on leash would also minimize the number of pet rescues needed. During the public comment period, the public stated their opinion of leash regulations at Muir Beach. One commenter stated, "Allowing dogs on leash would mitigate many of the safety and habitat concerns that seem to be the main objections to allowing dogs in areas that are both wildlife habitat and public recreation" (NPS 2011a, Correspondence 943).

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person with no permit required. Since commercial dog walking is not common at Muir Beach, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Muir Beach considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative B of the dog management plan, cumulative impacts to human health and safety would be beneficial.

MUIR BEACH ALTERNATIVE B CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Limitation in the number of dogs allowed and the leash requirement would minimize the chance of pet-related incidents	Beneficial cumulative impacts	Beneficial, assuming compliance

Alternative C: Emphasis on Multiple Use – Balanced by County. Alternative C would have the same dog walking restrictions as alternative B and impacts to human health and safety would be the same: negligible.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Muir Beach is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Muir Beach is not common, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Cumulative impacts to human health and safety would be the same as alternative B: beneficial.

MUIR BEACH ALTERNATIVE C CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	The leash requirement would minimize the chance of pet-related incidents	Beneficial cumulative impacts	Beneficial, assuming compliance

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, on-leash dog walking would be allowed only in the parking area and on the proposed Muir Beach Trail. Dogs would not be allowed on the beach or the bridge/path to beach. The lagoon and creek would remain closed to dogs.

Negligible impacts on the health and safety of park visitors and staff would be expected because dogs would be restricted by leash and limited to one trail and the likelihood of encountering an uncontrolled aggressive or unruly dog would be small. In addition, the chances of hazardous conditions for dogs and/or pet rescues would be reduced.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D. There would be no impact on human health and safety from commercial dog walking.

Cumulative Impacts. Projects and actions in and near Muir Beach considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative D of the dog management plan, cumulative impacts to human health and safety would be beneficial.

MUIR BEACH ALTERNATIVE D CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Limitation in the number of dogs allowed and the leash requirement would minimize the chance of pet-related incidents	Beneficial cumulative impacts	Beneficial, assuming compliance

Alternative E: Most Dog Walking Access / Most Management Intensive. Under alternative E, on-leash dog walking would be allowed on the proposed Muir Beach Trail, in the parking area, and on the bridge/path to the beach. The lagoon and creek would remain closed to dogs. A VSCA would be established on the beach south of the entrance path/bridge from the parking lot.

Long-term minor adverse impacts on the health and safety of park staff and visitors would occur. Having dogs under voice and sight control in the VSCA would create adverse impacts because the likelihood of individuals encountering an uncontrolled aggressive or unruly dog would increase with off-leash dogs. An additional risk from dog-to-dog interaction could result from people trying to separate dogs, which could increase the chances of injuries. In addition, staff and visitors would be more likely to be involved in a hazardous conditions/pet rescue incident.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Muir Beach is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Muir Beach is not common, it is likely that alternative E would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Muir Beach considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term, minor, adverse impacts associated with alternative E of the dog management plan, cumulative impacts to human health and safety would be negligible.

MUIR BEACH ALTERNATIVE E CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor adverse impacts, assuming compliance	Conditions would still provide the potential for encountering unruly or aggressive dogs and for the occurrence of pet-related incidents	Negligible cumulative impacts	No change, assuming compliance

Alternative F: Preferred Alternative. The preferred alternative would allow on-leash dog walking on the beach, connecting bridge, Muir Beach Trail, and on Kaashi Way from the junction with the Muir Beach Trail to the junction with Pacific Way. During periods when there is a connection between the lagoon and the ocean, dog walking on Muir Beach would not be permitted.

Negligible impacts on the health and safety of park visitors and staff would be expected to occur under the preferred alternative. The chance of individuals encountering uncontrolled aggressive or unruly dogs exists. However, the chance of this occurring would be negligible since dogs would be required to be on leash.

Under the preferred alternative, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Muir Beach is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking is not common at Muir Beach, it is likely that the new permit regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Muir Beach were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on health and safety at or in the vicinity of Muir Beach.

The *Dias Ridge Restoration and Trail Improvement Project* realigned trail segments and restored degraded areas on the ridge above Muir Beach (NPS 2016, 1). At Muir Beach, the *Lower Redwood Creek Interim Flood Reduction Measures and Floodplain Channel Restoration Project* was completed in July 2007 to help reduce flooding on Pacific Way. Another project, the *Wetland and Creek Restoration at Big Lagoon, Muir Beach*, included wetland and creek restoration at the tidal lagoon (NPS 2009j). The project restored a functional, self-sustaining ecosystem that re-created habitat for special-status species and reduced flooding on Pacific Way. The park’s *Fire Management Plan* would reduce the overgrowth of non-native evergreens and other fuel loads along critical access or egress routes and developed areas (NPS 2005b, 62). These actions would result in beneficial impacts on human health and safety at this site.

The negligible impacts to the health and safety of park staff and visitors under the preferred alternative were considered together with effects of the projects mentioned above. The beneficial effects from the restoration projects and the actions included in the park’s *Fire Management Plan* (NPS 2005b) along with the negligible impacts from the preferred alternative would result in beneficial impacts to the health and safety of park staff and visitor.

MUIR BEACH PREFERRED ALTERNATIVE F CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Limitation in the number of dogs allowed and the leash requirement would minimize the chance of pet-related incidents	Beneficial cumulative impacts	Beneficial, assuming compliance

Rodeo Beach/South Rodeo Beach

Alternative A: No Action. Currently, dogs are allowed on leash or under voice control on Rodeo Beach/South Rodeo Beach and on the footbridge and access trail to the beaches. The lagoon is currently closed to people and dogs. Visitor use in this area is considered moderate to high, with the majority of users being beachgoers; the percentage of visitors walking dogs is low to moderate (table 10). Between 2008 and 2011, a total of 30 pet-related incidents were recorded at this site. Pet-related violations included 9 leash law violations, 7 cases of visitors walking dogs in closed areas, 4 hazardous conditions violation (3 dog bites/attacks and 1 pet rescue), and 1 pet excrement violation (table 37a). No unattended pet violations were documented at this site between 2008 and 2011. Between 2012 and 2016, a total of 26 violations were recorded at Rodeo Beach. The majority of these violations were for animal complaints and violation of leash laws. A total of three dog bites were recorded and a violation for a dig walker in a closed area (table 37b).

Under alternative A, on-leash dog walking impacts on human health and safety would be long term, minor, and adverse. The chance of visitors and park staff interacting with an uncontrolled aggressive or unruly dog would exist, continuing the possibility of the risk of dog bites or other physical injury. The likelihood of dog-related incidents occurring would be minor; 7 dog bites have occurred since 2010.

At Rodeo Beach/South Rodeo Beach, commercial dog walking is uncommon. Therefore, commercial dog walking would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Rodeo Beach/South Rodeo Beach were considered for the cumulative impacts analysis (appendix K). Only one past action was found to contribute to the cumulative effects on health and safety at or in the vicinity of Rodeo Beach/South Rodeo Beach.

Oil spills have occurred and will likely occur in the Pacific Ocean and in San Francisco Bay and have the potential to impact the health and safety of park visitors and staff. On November 7, 2007, approximately 58,000 gallons of bunker fuel spilled from a container ship into the bay, resulting in the largest oil spill in the San Francisco Bay since the Cape Mohican incident in 1996. The health and safety impacts from this spill lasted only a few weeks, especially on the sandy beaches of the park. Impacts to the health and safety of park visitors was mitigated by closing the park beaches during this time and any park staff involved in monitoring the beaches was trained in Hazardous Waste Operations and Emergency Response. Therefore, impacts to the health and safety of park visitors and staff from the oil spill were considered negligible.

The long-term, minor, adverse impacts to the health and safety of park staff and visitors under alternative A were considered together with effects of the action mentioned above. The negligible impacts from the oil spill along with the long-term, minor, adverse impacts from alternative A would result in long-term, minor, adverse cumulative impacts to the health and safety of park staff and visitor.

RODEO BEACH/SOUTH RODEO BEACH ALTERNATIVE A CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor adverse impacts	Conditions would still exist for pet-related incidents involving unruly or aggressive dogs	Long-term, minor, adverse cumulative impacts	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Under alternative B, both beach areas, the access trails, and the bridge to those beaches would be open to on-leash dog walking. The lagoon would remain closed to people and dogs.

Impacts on the health and safety of park visitors and staff would be negligible. Requiring dogs to be on leash would minimize the impacts on human health and safety. The chance of park visitors and staff encountering uncontrolled aggressive or unruly dogs would still exist; however, dog-related incidents would be unlikely.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person with no permit required. Since commercial dog walking is not common at Rodeo Beach/South Rodeo Beach, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Rodeo Beach/South Rodeo Beach considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative B of the dog management plan, cumulative impacts to human health and safety would be negligible.

RODEO BEACH/SOUTH RODEO BEACH ALTERNATIVE B CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Limitation in the number of dogs allowed and the leash requirement would minimize the chance of pet-related incidents	Negligible cumulative impacts	Beneficial, assuming compliance

Alternative C: Emphasis on Multiple Use – Balanced by County. Under alternative C, on-leash dog walking would be allowed on the bridge to the beach. The lagoon would remain closed to people and dogs. A VSCA would be established on the full length of Rodeo Beach.

Impacts on the health and safety of park visitors and staff would be expected to be long term, minor, and adverse. Allowing dogs under voice and sight control would increase the risk of pet-related incidents or injuries because of the increased chances of encountering an unruly or aggressive dog. An additional risk from dog-to-dog interaction could result from people trying to separate dogs, which could increase the chances of injuries occurring. The risk of dog bites or other physical injury would exist but would be minor.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. Any dog walker, commercial or private, can obtain a permit to walk more than three dogs with a limit of six dogs on leash. In a VSCA, permit holders may have up to six dogs off-leash and the permit may restrict use by time and area. Permits would be allowed at Rodeo Beach. Impacts to health and safety from permit holders with six dogs off-leash are expected to increase under this alternative; however, impacts are not expected to increase enough to cause a change in the threshold level. Since commercial dog walking is not common at Rodeo Beach, it is likely that alternative C would result in a change to commercial dog walking at Rodeo Beach/South Rodeo Beach. Therefore, commercial dog walking under alternative C would have a negligible impact on health and safety.

Cumulative Impacts. Projects and actions in and near Rodeo Beach/South Rodeo Beach considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor adverse impacts associated with alternative C of the dog management plan, cumulative impacts to human health and safety would be long term, minor, and adverse.

RODEO BEACH/SOUTH RODEO BEACH ALTERNATIVE C CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor adverse impacts, assuming compliance	Chance of pet-related incidents involving unruly or aggressive dogs would exist	Long-term, minor, adverse cumulative impacts	No change, assuming compliance

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, on-leash dog walking would be allowed on Rodeo Beach north of the footbridge and on the bridge to the beach. The lagoon would remain closed to people and dogs.

Negligible impacts on health and safety would be expected. Although the risk of park visitors and staff encountering an uncontrolled aggressive or unruly dog would exist, pet-related incidents would be unlikely since dogs would be required to be on leash.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D. There would be no impact on human health and safety from commercial dog walking.

Cumulative Impacts. Projects and actions in and near Rodeo Beach/South Rodeo Beach considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative D of the dog management plan, cumulative impacts to human health and safety would be negligible.

RODEO BEACH/SOUTH RODEO BEACH ALTERNATIVE D CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Dogs being restricted to on-leash walking would minimize the chance of unruly or aggressive dog encounters; risk to safety and health of visitors and staff from aggressive dogs would still remain	Negligible cumulative impacts	Beneficial, assuming compliance

Alternative E: Most Dog Walking Access / Most Management Intensive. Under alternative E, on-leash dog walking would be allowed on the bridge and access trail to the beach. VSCAs would be established on Rodeo Beach and South Rodeo Beach. The lagoon would remain closed to people and dogs.

Impacts on the health and safety of park visitors and staff would be long term, minor, and adverse. Impacts would be adverse since having dogs under voice and sight control may increase the risk of dog-related incidents. An additional risk from dog-to-dog interaction could result from people trying to separate dogs, which could increase the chances of injuries occurring. There would be an increased chance of encounters with uncontrolled aggressive dogs, although this chance would be minor.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. Any dog walker, commercial or private, can obtain a permit to walk more than three dogs with a limit of six dogs on leash. In a VSCA, permit holders may have up to six dogs off-leash and the permit may restrict use by time and area. Permits would be allowed at Rodeo Beach. Impacts to health and safety from permit holders with six dogs off-leash are expected to increase under this alternative; however, impacts are not expected to increase enough to cause a change in the threshold level. Since commercial dog walking is not common at Rodeo Beach, it is likely that the new regulation would not have an impact on the number of dog walkers. Therefore, commercial dog walking under alternative E would have a negligible impact on health and safety.

Cumulative Impacts. Projects and actions in and near Rodeo Beach/South Rodeo Beach considered for the cumulative impacts analysis would be the same as those described under alternative A. When the

impacts associated with these projects are added to the long-term minor adverse impacts associated with alternative E of the dog management plan, cumulative impacts to human health and safety would be long term, minor, and adverse.

RODEO BEACH/SOUTH RODEO BEACH ALTERNATIVE E CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor adverse impacts, assuming compliance	Conditions would still allow the possibility of pet-related incidents involving unruly or aggressive dogs	Long-term, minor adverse cumulative impacts	No change, assuming compliance

Alternative F: Preferred Alternative. The preferred alternative includes a VSCA on the main Rodeo Beach between the ocean and the proposed post-and-cable fence to be installed to protect the shoreline habitat at the western edge of Rodeo Lagoon, which would remain closed to people and dogs to the southern boundary of the main beach where a rocky point divides the main beach from South Rodeo Beach. On-leash dog walking would be allowed on the footbridge and beach access steps that lead to the beach. During periods when surface waters connect the lagoon and the ocean, no dogs would be allowed to enter the connecting surface waters in the northwest portion of the VSCA or the beach access steps during those seasonal periods.

Impacts on the health and safety of park visitors and staff would be expected to be long term, minor, and adverse. Allowing dogs under voice and sight control would increase the risk (compared to on-leash dogs) of pet-related incidents or injuries because of the increased chances of encountering an unruly or aggressive dog. An additional risk from dog-to-dog interaction could result from people trying to separate dogs, which could increase the chances of injuries occurring. The risk of dog bites or other physical injury occurring would exist but would be minor.

Under the preferred alternative, all dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. Any dog walker, commercial or private, can obtain a permit to walk more than three dogs with a limit of six dogs on leash. In a VSCA, permit holders may have up to six dogs off-leash and the permit may restrict use by time and area. Permits would be allowed at Rodeo Beach. Impacts to health and safety from permit holders with six dogs off-leash are expected to increase under this alternative; however, impacts are not expected to increase enough to cause a change in the threshold level. Since commercial dog walking is not common at Rodeo Beach, it is likely that the new regulation would not have an impact on the number of dog walkers. Therefore, commercial dog walking under alternative C would have a negligible impact on health and safety.

Cumulative Impacts. Projects and actions in and near Rodeo Beach/South Rodeo Beach were considered for the cumulative impacts analysis (appendix K). Only one past action was found to contribute to the cumulative effects on health and safety at or in the vicinity of Rodeo Beach/South Rodeo Beach.

Oil spills have occurred and will likely occur in the Pacific Ocean and in San Francisco Bay and have the potential to impact the health and safety of park visitors and staff. On November 7, 2007, approximately 58,000 gallons of bunker fuel spilled from a container ship into the bay, resulting in the largest oil spill in the San Francisco Bay since the Cape Mohican incident in 1996. The health and safety impacts from this spill lasted only a few weeks, especially on the sandy beaches of the park. Impacts to the health and safety of park visitors was mitigated by closing the park beaches during this time and any park staff involved in monitoring the beaches was trained in Hazardous Waste Operations and Emergency Response. Therefore, impacts to the health and safety of park visitors and staff from the oil spill were considered negligible.

The long-term, minor, adverse impacts to the health and safety of park staff and visitors under the preferred alternative were considered together with effects of the action mentioned above. The negligible impacts from the oil spill along with the long-term, minor, adverse impacts from the preferred alternative would result in long-term, minor, adverse cumulative impacts to the health and safety of park staff and visitor.

RODEO BEACH/SOUTH RODEO BEACH PREFERRED ALTERNATIVE F CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor adverse impacts, assuming compliance	Chance of pet-related incidents involving unruly or aggressive dogs would exist	Long-term, minor, adverse cumulative impacts	No change, assuming compliance

Marin Headlands Trails

Alternative A: No Action. Under the no-action alternative, on-leash dog walking is allowed along portions of the Coastal Trail (Hill 88 to Muir Beach), Batteries Loop Trail, North Miwok Trail (from Tennessee Valley to Highway 1), Marin Drive, and County View Trail. Dog walking under voice control (or on leash) is allowed along the section of the Coastal Trail from the Golden Gate Bridge to Hill 88, including the North Lagoon Loop Trail, the Coastal, Wolf, and Miwok Trail Loop, and the Old Bunker Fire Road Loop (includes a section of the Coastal Trail). Visitor use at this site is considered low to high, with a variety of visitor experiences including hiking, biking, and horseback riding. The percentage of visitors walking dogs is low to moderate (table 10). Between 2008 and 2011, a total of 269 pet-related incidents were recorded at this site. Pet-related violations included 208 cases of visitors walking dogs in closed areas, 31 leash law violations, three dog bites/attacks, 1 pet excrement violation, and 1 unattended pet (table 37a). Between 2012 and 2016, a total of 232 pet-related incidents were recorded (table 37b). Violations included 98 leash law violations, 56 dog walkers in closed areas, 40 animal complaints, 36 resource violations, one dog bite, and one dog/wildlife interaction (table 37b).

Long-term moderate adverse impacts on human health and safety would occur at this site under the no-action alternative. The risk of dog-related incidents would continue because there would still be opportunities for park visitors and staff to encounter uncontrolled aggressive dogs, especially for park staff when issuing warnings and citations and assisting in hazardous pet rescues.

Under alternative A, no permit system exists for dog walking. At Marin Headlands Trails, commercial dog walking is uncommon. Therefore, commercial dog walking would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near the Marin Headlands Trails were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on health and safety at or in the vicinity of the Marin Headlands Trails.

Transportation infrastructure management in the Marin Headlands Trails and the Fort Baker Transportation Plan provides greater access to and within these areas for a variety of user groups in the park. The *San Francisco Bay Conservation and Development Commission's Tennessee Valley / Manzanita Connector Pathway Project* will upgrade the existing path to meet current FRA accessibility and design standards for a multi-use pathway and will encourage area residents to use the trail as an alternative to vehicular travel to reach key destinations (San Francisco Bay Conservation and

Development Commission 2009, 2). The park’s *Fire Management Plan* would reduce the buildup of hazardous fuels adjacent to historic structures, nearby residential areas, and popular visitor destinations where access is limited (NPS 2005b, 61). Accessibility site improvements at Marin Headlands Trails included providing parking and accessible driveways to the Kirby Cove historic site, restrooms, and campsites. These projects would result in beneficial impacts on human health and safety.

Under alternative A, the long-term, moderate, adverse impacts to the health and safety of park staff and visitors from dogs at the Marin Headlands Trails, together with effects of the projects mentioned above were considered. The benefits to the health and safety of park staff and visitors from the pathway project, the park’s *Fire Management Plan* (NPS 2005b), and the accessibility improvements are not expected to reduce the adverse impact of this alternative; therefore the cumulative analysis for this park site will focus on the results of the impact analysis for this alternative. The beneficial effects from the pathway project and the park’s *Fire Management Plan* along with the long-term, moderate, and adverse impacts from alternative A would result in long-term, moderate, and adverse cumulative impacts.

MARIN HEADLANDS TRAILS ALTERNATIVE A CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term moderate adverse impacts	Conditions would exist for continued encounters with unruly or aggressive dogs for visitors and park staff	Long-term moderate adverse cumulative impacts	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Under alternative B, no dog walking would be allowed at the Marin Headlands Trails site. During the public comment period, the public described their thoughts on the use of the Marin Headlands Trails for dog walking. One commenter stated, “I strongly prefer that the Marin Headlands Trails of Tennessee Valley, Coastal Trail, Coyote Ridge and Miwok Trails exclude dogs. My stance comes as a result of several incidences over the years of dogs approaching us in a threatening way. We have had the experience, on more than one occasion, of off-leash dogs growling and baring their teeth and charging at us and our on-leash dog who was not evoking a challenge. We have children and felt that their safety was in immediate peril. One time on the Miwok Trail, I was terrified, especially since the dog owner was claiming his dogs were nice, even while they growled and charged at us... On the main Tennessee Valley trail, where dogs are not allowed at all, I have never had a problem and have only seen a dog once....But if the rules are confusing or if they are more lenient, such as if on-leash is okay, then it seems a majority of people will let their dogs off-leash, and perhaps just carry the leash separately. I have seen this more times than not. If I politely ask them to put their dog on a leash while they pass us, the response is typically that their dog is harmless, and they would rather argue and defend their dog's character than to comply with the rule and my request. It seems the only way to change this would be to not allow dogs in those areas” (NPS 2011a, Correspondence 3548).

The elimination of dogs from this site would reduce the chances of dog bites or injuries occurring. The chance of visitors or park staff coming into contact with an unruly or aggressive dog would not exist. Additionally, restricting dogs from the site would eliminate the risk of exposure to pathogens or diseases associated with dog waste. Being able to walk a dog in the park helps maintain a healthy lifestyle. Restricting dog access from Marin Headlands could adversely impact the health of some visitors as they would no longer be able exercise at this location. In addition, some visitors would be adversely impacted by the dog restriction because they would not feel safe recreating at the site without the presence of a dog. However, dog walking would be available at other nearby park sites. Impacts to the health and safety of park staff and visitors would be negligible.

During the initial education and enforcement period, impacts on park staff would be adverse. Due to the history of citations and warnings given for visitors neglecting the current regulations, confrontations between visitors and staff would be expected due to the restriction of all dogs from the site. It is anticipated that confrontations would be intense, which would place staff at a greater risk of injury. Due to the history of noncompliance and confrontation at this site, impacts on park staff during the initial education and enforcement period would be short term, moderate, and adverse.

Since dogs would not be allowed at the Marin Headlands Trails, there would be no impact from commercial dog walkers on human health and safety.

Cumulative Impacts. Projects and actions in and near Marin Headlands Trails considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative B of the dog management plan, cumulative impacts to human health and safety would be negligible.

MARIN HEADLANDS TRAILS ALTERNATIVE B CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance; short term moderate and adverse to staff during the initial education and enforcement period	Dogs would be prohibited; Increased conflicts during education period could occur	Negligible cumulative impacts	Beneficial, assuming compliance

Alternative C: Emphasis on Multiple Use – Balanced by County. Under alternative C, on-leash dog walking would be allowed along the Lower Rodeo Valley Trail Corridor, which includes sections of several trails including the North Lagoon Loop Trail, Miwok Trail, and Rodeo Valley Trail, and the connector from Rodeo Valley Trail to the Smith Road Trailhead. On leash dog walking would also be allowed on the Batteries Loop Trail and the Old Bunker Fire Road Loop (includes a section of the Coastal Trail).

Impacts on human health and safety would be long term, minor, and adverse. Requiring dogs to be on leash in designated areas would minimize the risk of dog-related incidents. However, based on the history of incidents and violations in the past, the chance of individuals interacting with an unruly or aggressive dog would exist, resulting in the risk of dog bites or other physical injuries. Due to the history of noncompliance and confrontation at this site, impacts on park staff during the initial education and enforcement period would be short-term, moderate, and adverse. It would be anticipated that confrontations between visitors and staff may increase due to visitors disagreeing with the new dog management regulations. Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Marin Headlands Trails is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Marin Headlands Trails is not common, it is likely that alternative C would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Marin Headlands Trails considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor adverse impacts associated with alternative C of the dog management plan, cumulative impacts to human health and safety would be long term, minor, and adverse.

MARIN HEADLANDS TRAILS ALTERNATIVE C CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor adverse impacts, assuming compliance; short term moderate and adverse to staff during the initial education and enforcement period	Site has history of dog-related confrontations and incidents that put visitors and park staff health and safety at risk	Long-term, minor, adverse cumulative impacts	Beneficial, assuming compliance

Alternative D: Most Protective of Resource Protection and Visitor Safety. Alternative D would have the same dog walking restrictions as alternative B and impacts to human health and safety would be the same: negligible. As discussed under alternative B, short-term, moderate adverse impacts to park staff are anticipated during the initial education and enforcement period.

Since dogs would not be allowed at Marin Headlands Trails, there would be no impact from commercial dog walkers on human health and safety.

Cumulative Impacts. Cumulative impacts to human health and safety would be the same as alternative B: negligible.

MARIN HEADLANDS TRAILS ALTERNATIVE D CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance; short term moderate and adverse to staff during the initial education and enforcement period	Dogs would be prohibited; Increased conflicts during education period could occur	Negligible cumulative impacts	Beneficial, assuming compliance

Alternative E: Most Dog Walking Access / Most Management Intensive. Under alternative E, on-leash dog walking would be allowed along a section of the Coastal Trail (the Conzelman Coastal Trail from Highway 101 to the McCullough intersection and then to the Coastal Trail Bike Route, including Julian Road, to the Rodeo Beach parking lot), the Old Bunker Fire Road Loop (includes a section of the Coastal Trail), the Batteries Loop Trail, the North Miwok Trail (from Tennessee Valley to Highway 1), the County View Trail, Marin Drive, the Rodeo Avenue Trail, and the Morning Sun Trail.

Impacts on human health and safety would be long term, minor, and adverse. Requiring dogs to be on leash in designated areas would minimize the risk of dog-related incidents and violations. However, due to the history of incidents in the past, the chance of individuals interacting with an unruly or aggressive dog would exist, resulting in the risk of dog bites or other physical injuries. Due to the history of noncompliance and confrontation at this site, impacts on park staff during the initial education and enforcement period would be short-term, moderate, and adverse. It would be anticipated that confrontations between visitors and staff may increase due to visitors disagreeing with the new dog management regulations.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Marin Headlands Trails site is not one of the sites where

permits to walk more than three dogs would be issued. Since commercial dog walking activity at Marin Headlands Trails is not common, it is likely that alternative E would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Marin Headlands Trails considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor adverse impacts associated with alternative E of the dog management plan, cumulative impacts to human health and safety would be long term, minor, and adverse.

MARIN HEADLANDS TRAILS ALTERNATIVE E CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor adverse impacts, assuming compliance; short term moderate and adverse to staff during the initial education and enforcement period	Site has history of dog-related confrontations and incidents that put visitors and park staff health and safety at risk	Long-term, minor, adverse cumulative impacts	Beneficial, assuming compliance

Alternative F: Preferred Alternative. On-leash dog walking would be allowed along the Lower Rodeo Valley Trail Corridor from the Rodeo Beach parking lot to the intersection of Bunker and McCullough roads via the North Lagoon Loop Trail, and sections of the Miwok Trail and Rodeo Valley Trail, Smith Trail from the parking lot to Rodeo Valley Trail, and includes the connector trail from Rodeo Valley Trail to the Smith Road Trailhead. On-leash dog walking would also be available on the Old Bunker Fire Road Loop (including a section of the Coastal Trail), Batteries Loop Trail, Rodeo Avenue Trail, and Morning Sun Trail. During the public comment period, the public described their use of the Coastal Trail. One commenter stated, “I’m a woman and I often hike alone with my dog. I don’t hike on any trails without my dog because it’s so isolated in many places that I don’t feel safe. My dog is my protection. You have removed most of the Headlands from me. Please don’t take one of the last trails left to me” (NPS 2011a, Correspondence 973). The preferred alternative would reduce the number of trails open to dogs compared to alternative A, but dogs would still be allowed on-leash on some trails at the Marin Headlands, and the addition of the Rodeo Avenue and Morning Sun Trails would connect Marin Headlands visitors to the Alta Trail and Oakwood Valley.

Impacts on human health and safety would be long term, minor, and adverse. Requiring dogs to be on leash in designated areas would minimize the risk of dog-related incidents and violations. However, due to the history of incidents in the past at this site, the chance of individuals interacting with an unruly or aggressive dog would exist, resulting in the risk of dog bites or other physical injuries. Due to the history of noncompliance and confrontation at this site, impacts on park staff during the initial education and enforcement period would be short-term, moderate, and adverse. It would be anticipated that confrontations between visitors and staff may increase due to visitors disagreeing with the new dog management regulations.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Marin Headlands Trails site is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Marin Headlands Trails is not common, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near the Marin Headlands Trails were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on health and safety at or in the vicinity of the Marin Headlands Trails.

Transportation infrastructure management in the Marin Headlands Trails and the Fort Baker Transportation Plan provides greater access to and in these areas for a variety of user groups in the park. The *San Francisco Bay Conservation and Development Commission's Tennessee Valley / Manzanita Connector Pathway Project* will upgrade the existing path to meet current FRA accessibility and design standards for a multi-use pathway and will encourage area residents to use the trail as an alternative to vehicular travel to reach key destinations (San Francisco Bay Conservation and Development Commission 2009, 2). The park's *Fire Management Plan* would reduce the buildup of hazardous fuels adjacent to historic structures, nearby residential areas, and popular visitor destinations where access is limited (NPS 2005b, 61). These projects would result in beneficial impacts on human health and safety.

Under the preferred alternative, the long-term, minor, adverse impacts to the health and safety of park staff and visitors from dogs at the Marin Headlands Trails, together with effects of the projects mentioned above were considered. The benefits to the health and safety of park staff and visitors from the pathway project and the park's *Fire Management Plan* (NPS 2005b) is not expected to reduce the adverse impact of this alternative; therefore the cumulative analysis for this park site will focus on the results of the impact analysis for this alternative.

The accessibility site improvements at Marin Headlands Trails, included providing parking and accessible driveways to the Kirby Cove historic site, restrooms, and campsites. The beneficial effects from the pathway project, the park's *Fire Management Plan*, and the accessibility plan, along with the long-term moderate adverse impacts from the preferred alternative would result in long-term minor and adverse cumulative impacts.

MARIN HEADLANDS TRAILS PREFERRED ALTERNATIVE F CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor adverse impacts, assuming compliance; short-term, moderate adverse impacts to staff during education and enforcement period	Site has history of dog-related confrontations and incidents that put visitors and park staff health and safety at risk	Long-term, minor, adverse cumulative impacts	Beneficial, assuming compliance

Fort Baker

Alternative A: No Action. Currently, dogs are allowed on leash in designated areas throughout Fort Baker. Visitor use at this site is considered moderate, and the percentage of visitors walking dogs is low (table 10). Between 2008 and 2011, a total of 60 pet-related incidents were recorded at this site. Pet-related violations included 52 leash law violations, 4 cases of visitors walking dogs in closed areas, and 1 pet rescue (table 37a). No unattended pet or pet excrement violations were documented at this site between 2008 and 2011. Between 2012 and 2016, a total of 55 pet-related incidents were recorded at this site (table 37b). The majority of these violations included 29 leash law violations, 16 animal complaints, and five dog bites (table 37b).

Under the no-action alternative, on-leash dog walking impacts on the health and safety of park visitors and staff would be negligible. Some visitors would continue to walk their dogs under voice control even

though leashes would be required. The chance of visitors and staff encountering unruly or aggressive dogs would exist, which could result in a dog-related incident. However, this is unlikely, based on the history at this site.

Under alternative A, no permit system exists for dog walking. At Fort Baker, commercial dog walking is uncommon. Therefore, commercial dog walking would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Fort Baker were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on human health and safety at or in the vicinity of Fort Baker.

At Fort Baker, the newly constructed Cavallo Point Lodge, which also houses the Institute at the Golden Gate; infrastructure upgrades; waterfront improvements; and native habitat restoration will attract additional visitors to this site (NPS 2008h, p. 1). Transportation infrastructure management in the Marin Headlands Trails and Fort Baker provides greater access to and within these areas for a variety of user groups in the park. The park's *Fire Management Plan* would include (1) the management of dense overgrowth of non-native evergreen trees, which have expanded beyond the historic bounds and create fire hazards to nearby historic structures; (2) the reduction of hazards along the Highway 101 and Alexander Avenue corridors; and (3) the improvement of the defensible space around buildings and below the High Vista neighborhood (NPS 2005b, 61). Beneficial impacts on human health and safety would be expected from the projects mentioned above. The impacts resulting from the past oil spill would add little to the cumulative impacts on health and safety since those impacts were found to be negligible.

The negligible impacts on human health and safety under alternative A were considered together with the beneficial effects of the projects and actions mentioned above. Cumulatively, there would be beneficial impacts on health and safety at this park site under this alternative.

FORT BAKER ALTERNATIVE A CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts	Risk of encounters with unruly or aggressive dogs would still exist	Beneficial cumulative impacts	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Under alternative B, on-leash dog walking would be allowed on Drown Fire Road, the Bay Trail (not including the Battery Yates Trail), the Vista Point Trail (to be built), the Lodge and Conference Center grounds, and the Parade Ground.

Some uncontrolled aggressive or unruly dogs may be present at the site, resulting in the possibility of a pet-related incident; however, the chance of such incidents would be slight, based on the history of this site. Having dogs on leash in designated areas would benefit health and safety at this site. Impacts on human health and safety under alternative B would be negligible.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person with no permit required. Since commercial dog walking is not common at Fort Baker, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Fort Baker considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative B of the dog management plan, cumulative impacts to human health and safety would be beneficial.

FORT BAKER ALTERNATIVE B CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Risk of encounters with unruly or aggressive dogs would exist but would be minimized by leash requirements	Beneficial cumulative impacts	No change, assuming compliance

Alternative C: Emphasis on Multiple Use – Balanced by County. Under alternative C, on-leash dog walking would be allowed on Drown Fire Road, the Bay Trail including the Battery Yates Trail, the Vista Point Trail (to be built), the Lodge and Conference Center grounds, and the Parade Ground.

Some uncontrolled aggressive or unruly dogs may be present at the site, resulting in the possibility of a pet-related incident; however, the chance of such incidents would be slight, based on the history of this site. Having dogs on leash in designated areas would benefit health and safety at this site. Impacts on human health and safety under alternative C would be negligible.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. Any dog walker, commercial or private, can obtain a permit to walk more than three dogs with a limit of six dogs on leash and the permit may restrict use by time and area. Permits would be allowed at Fort Baker. Impacts to health and safety from permit holders with six dogs are expected to increase under this alternative; however, impacts are not expected to increase enough to cause a change in the threshold level. Since commercial dog walking is not common at Fort Baker, it is likely that the new regulation would not have an impact on the number of dog walkers. Therefore, commercial dog walking under alternative C would have a negligible impact on health and safety.

Cumulative Impacts. Projects and actions in and near Fort Baker considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative C of the dog management plan, cumulative impacts to human health and safety would be beneficial.

FORT BAKER ALTERNATIVE C CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Risk of encounters with unruly or aggressive dogs would exist but would be minimized by leash requirements	Beneficial cumulative impacts	No change, assuming compliance

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, on-leash dog walking would be allowed at the Lodge and Conference Center grounds, the Bay Trail (not including the Battery Yates Trail), and the Vista Point Trail (to be built).

Since the available data show that no previous dog bite/attack violations have occurred in recent years, impacts on the health and safety of park visitors and staff would be negligible. The chance of visitors and staff encountering an unruly or aggressive dog would still exist; however, it would be less likely at this site.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D. There would be no impact on human health and safety from commercial dog walking.

Cumulative Impacts. Projects and actions in and near Fort Baker considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative D of the dog management plan, cumulative impacts to human health and safety would be beneficial.

FORT BAKER ALTERNATIVE D CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Risk of encounters with unruly or aggressive dogs would still exist but would be minimized by leash requirements	Beneficial cumulative impacts	No change, assuming compliance

Alternative E: Most Dog Walking Access / Most Management Intensive. Alternative E would have the same dog walking restrictions as alternative C and impacts to human health and safety would be the same: negligible.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. Any dog walker, commercial or private, can obtain a permit to walk more than three dogs with a limit of six dogs on leash and the permit may restrict use by time and area. Permits would be allowed at Fort Baker. Impacts to health and safety from permit holders with six dogs are expected to increase under this alternative; however, impacts are not expected to increase enough to cause a change in the threshold level. Since commercial dog walking is not common at Fort Baker, it is likely that the new regulation would not have an impact on the number of dog walkers. Therefore, commercial dog walking under alternative E would have a negligible impact on health and safety.

Cumulative Impacts. Cumulative impacts to human health and safety would be the same as alternative C: beneficial.

FORT BAKER ALTERNATIVE E CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Risk of encounters with unruly or aggressive dogs would still exist but would be minimized by leash requirements	Beneficial cumulative impacts	No change, assuming compliance

Alternative F: Preferred Alternative. The preferred alternative would allow on-leash dog walking on the Parade Ground; the length of the Bay Trail from the northern parking lot off of Conzelman Road to the northern park boundary along East Road; on Fort Baker Trail between the southern intersection with

the Bay Trail at Sommersville Road to the northern intersection with the Bay Trail at East Road; and in the main parking area at the Bay Discovery Museum on its connecting trails to both the Bay and Fort Baker trails.

Some uncontrolled aggressive or unruly dogs may be present at the site, resulting in the possibility of a pet-related incident; however, the chance of such incidents would be slight, based on the history of this site. Having dogs on leash in designated areas would benefit health and safety at this site. Impacts on human health and safety under the preferred alternative would be negligible.

All dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. Any dog walker, commercial or private, can obtain a permit to walk more than three dogs with a limit of six dogs on leash and the permit may restrict use by time and area. Permits would be allowed at all on-leash areas at Fort Baker except around any portion of the Cavallo Point Lodge buildings outside the main parade ground. Impacts to health and safety from permit holders with six dogs are expected to increase under this alternative; however, impacts are not expected to increase enough to cause a change in the threshold level. Since commercial dog walking is not common at Fort Baker, it is likely that the new regulation would not have an impact on the number of dog walkers. Therefore, commercial dog walking under the preferred alternative would have a negligible impact on health and safety.

Cumulative Impacts. Projects and actions in and near Fort Baker were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on human health and safety at or in the vicinity of Fort Baker.

At Fort Baker, the newly constructed Cavallo Point Lodge, which also houses the Institute at the Golden Gate; infrastructure upgrades; waterfront improvements; and native habitat restoration will attract additional visitors to this site (NPS 2008h, 1). Transportation infrastructure management in the Marin Headlands Trails and Fort Baker provides greater access to and within these areas for a variety of user groups in the park. The park’s *Fire Management Plan* would include (1) the management of dense overgrowth of non-native evergreen trees, which have expanded beyond the historic bounds and create fire hazards to nearby historic structures; (2) the reduction of hazards along the Highway 101 and Alexander Avenue corridors; and (3) the improvement of the defensible space around buildings and below the High Vista neighborhood (NPS 2005b, 61). Beneficial impacts on human health and safety would be expected from the projects mentioned above.

The negligible impacts on human health and safety under the preferred alternative were considered together with the beneficial effects of the projects and actions mentioned above. Cumulatively, there would be beneficial impacts on health and safety at this park site under this alternative.

FORT BAKER PREFERRED ALTERNATIVE F CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Risk of encounters with unruly or aggressive dogs would exist but would be minimized by leash requirements	Beneficial cumulative impacts	No change, assuming compliance

SAN FRANCISCO COUNTY SITES

Table 38a shows the number and type of dog incidents recorded from 2008 through 2011 at each of the GGNRA sites in San Francisco County. The data below was taken from law enforcement reports. Dog-related incidents include violations of the leash law, hazardous conditions (includes a dog bite, dog attack, or dog rescue), unattended pet violation, failure to pick up pet excrement, possessing a pet in a closed area, violation of a closed area, wildlife disturbance, and vegetation damage. Table 38b shows the number and type of dog incidents recorded from 2012 through 2016 at each of the GGNRA sites in San Francisco County. Dog-related incidents for these years included animal complaints, dog bites, dog walkers in closed areas, violation of leash laws, dog/wildlife interactions, and resource violations. A leash violation can include having a dog off leash in a leash-only area, including violations of 36 CFR 7.97(d), which describe seasonal leash restrictions for western snowy plovers in the SPPA at Ocean Beach and in the WPA at Crissy Field. There are many more dog-related violations at the park, as suggested by calls and complaints from the public, but some violations are not recorded because they are not observed by the law enforcement staff or the violations are not reported by the public. Also, the limited law enforcement staff and the distance between each park site affects the frequency of patrols. Law enforcement is responsible for covering approximately 80 miles of non-contiguous park sites. There are approximately nine law enforcement staff members and U.S. Park Police patrolling park sites per shift; therefore, law enforcement must strategize which sites to assign staff to each shift. In addition, many law enforcement staff patrol in pairs when monitoring for pet-related compliance. Low-use sites and small sites are not as regularly patrolled due to staffing limitations. Approximately less than 5 percent of law enforcement time is devoted to dog management-related issues.

TABLE 38A. NUMBER AND TYPE OF DOG-RELATED INCIDENTS AT SAN FRANCISCO COUNTY SITES, 2008–2011

	Fort Mason	Crissy Field	Fort Point	Baker Beach	Fort Miley	Lands End	Sutro Heights Park	Ocean Beach	Fort Funston
Disturbance of Threatened and Endangered Species	0	0	0	0	0	0	0	4	0
General Pet Violations	6	0	0	0	0	0	0	1	2
Hazardous Condition	6	17	2	6	0	5	0	22	72
Off-Leash Violation	129	65	15	48	0	1	46	89	69
Pet Excrement	0	3	0	1	0	0	0	5	0
Possessing Pet in Closed Area	0	15	3	19	0	0	2	2	1
Unattended Pet	0	1	0	1	0	0	0	0	0
Vegetation Damage	0	0	0	0	0	0	2	0	1
Violation of Closed Area	0	58	0	1	0	0	0	75	0
Violation of Leash Restriction in SPPA	0	0	0	0	0	0	0	729	0
Violation of Leash Restriction in WPA	0	283	0	0	0	0	0	0	0
Wildlife Disturbance	0	2	0	0	0	0	0	5	0
Other	4	66	3	10	0	4	21	37	27
Total	145	510	23	86	0	10	71	969	172

Note: Citations for possessing a pet in a closed area and violation of a closed area are used interchangeably on incident reports, but are separate violations; therefore, they were not compiled in this analysis.

TABLE 38B. NUMBER AND TYPE OF DOG-RELATED INCIDENTS AT SAN FRANCISCO COUNTY SITES, 2012–2016

	Fort Mason	Crissy Field	Fort Point	Baker Beach	Fort Miley	Lands End	Sutro Heights Park	Ocean Beach	Fort Funston
Animal Complaint	19	35	3	18	0	6	9	29	77
Dog Bite	6	11	0	9	0	2	2	9	25
Dog Walker in Closed Area	11	8	0	10	0	4	2	10	33
Violation of Leash Law	38	29	2	8	0	5	20	73	20
Dog/Wildlife Interaction	0	3	0	2	0	0	0	2	0
Resource Violation	0	12	0	2	0	0	0	33	0
Total	74	98	5	49	0	17	33	156	157

Note: Citations for possessing a pet in a closed area and violation of a closed area are used interchangeably on incident reports, but are separate violations; therefore, they were not compiled in this analysis.

Upper and Lower Fort Mason

Alternative A: No Action. On-leash dog walking is currently allowed in all of Upper and Lower Fort Mason. Visitor use at this site is considered moderate to high, with a variety of visitor experiences including walking and bicycling; dog walking and commercial dog walking are considered a low to moderate use activity at this site (table 10). Between 2008 and 2011, a total of 145 pet-related incidents were recorded at this site. Pet-related violations included 129 leash law violations, 6 hazardous conditions violations (including 4 dog bites/attacks), and 5 cases of visitors walking dogs in closed areas (table 38a). No unattended pet or pet excrement violations were documented at this site between 2008 and 2011. Between 2012 and 2016, a total of 74 pet-related incidents were recorded at this site. Incidents included 38 leash law violations, 19 animal complaints, 11 dog walkers in closed areas, and 6 dog bites (table 38b).

Under the no-action alternative, on-leash dog walking would continue at Upper and Lower Fort Mason. Impacts on the health and safety of park visitors and staff would continue to be long term, moderate, and adverse. From 2008 through 2011, violations were issued for dog bites/attacks, hazardous conditions/pet rescues, and for noncompliance with leash regulations. The chance of pet-related injuries and rescues occurring would continue under the no-action alternative. Visitors and staff would continue to be at risk.

Under alternative A, no permit system exists for dog walking. However, at Fort Mason, commercial dog walking is considered a low to moderate use. Therefore, commercial dog walking would contribute long-term minor adverse impacts to human health and safety due to the increased risk of dog-related incidents.

Cumulative Impacts. Projects and actions in and near Upper and Lower Fort Mason were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on health and safety at or in the vicinity of Fort Mason.

The improvement of the San Francisco Bay Trail at Laguna Street and Marina Boulevard at Fort Mason is part of park stewardship programs and included the enhancement of visitor safety and experience, improvement of pedestrian and bicyclist traffic flow, and revegetation of the landscape (GGNPC 2016, 1). The proposed extension of the Municipal Railway's Historic Streetcar Service would continue the F-line three blocks west from San Francisco Maritime National Historic Park through the Fort Mason

Tunnel to the Fort Mason Center at GGNRA, for a total additional distance of about 0.85 mile (NPS 2010h, 1). The park’s *Fire Management Plan* would create defensible space around buildings that adjoin wildland fuels and would require the park to work closely with the Presidio Fire Department in wildlife planning and management actions (NPS 2005b, 63). Fort Mason has been identified as a key site targeted for increasing accessibility in GGNRA. Improvements were made at Fort Mason in accessibility of picnic areas, camping views, beaches, restrooms, and interpretive and wayfinding signs, and parking and accessible routes to these amenities. Beneficial impacts on human health and safety would occur from these projects.

Under alternative A, the long-term, moderate, adverse impacts to the health and safety of park staff and visitors from dogs at Fort Mason, together with effects of the projects mentioned above were considered. The benefits to the health and safety of park staff and visitors from the park’s park stewardship programs and *Fire Management Plan* (NPS 2005b) is expected to reduce some of the adverse impacts of this alternative. Therefore, the cumulative impacts to the health and safety of park staff and visitors from dogs at Fort Mason are expected to be long-term, minor, and adverse.

FORT MASON ALTERNATIVE A CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term moderate adverse impacts	Incidents related to unruly or aggressive dogs that may place visitors and park staff health or safety at risk would continue; site has history of dog bites/attacks, pet rescues, and noncompliance with the leash law; commercial dog walking would contribute to adverse impacts	Long-term minor adverse cumulative impacts	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Under alternative B, on-leash dog walking would be allowed in all areas not closed to dog walking (listed in the GGNRA Compendium each year).

The chance of park visitors and staff encountering uncontrolled aggressive or unruly dogs would exist, resulting in the risk of dog bites/attacks. In addition, rescues may also occur, resulting in risk to park staff, visitors, and dogs. Long-term minor adverse impacts on human health and safety would be anticipated. Impacts would be expected based on the variety of visitor experiences of the site and the historical conditions present at the site.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person with no permit required. Since commercial dog walking is common at Fort Mason, the new regulation would have beneficial impacts on human health and safety. There would be a restriction limiting the number of dogs allowed per dog walker, which should result in reducing the number of dog-related injuries. Commercial dog walkers would have fewer dogs and would have more control of their dogs.

Cumulative Impacts. Projects and actions in and near Fort Mason considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with

these projects are added to the long-term minor adverse impacts associated with alternative B of the dog management plan, cumulative impacts to human health and safety would be negligible.

FORT MASON ALTERNATIVE B CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor adverse impacts, assuming compliance	Incidents related to unruly or aggressive dogs that may place visitors and park staff health or safety at risk would continue; site has history of dog bites/attacks, pet rescues, and noncompliance with the leash law	Negligible cumulative impacts	Beneficial, assuming compliance

Alternative C: Emphasis on Multiple Use – Balanced by County. Under alternative C, on-leash dog walking would be allowed on all sidewalks, paved trails, open areas around housing, and the lawn below the Laguna Street path. Two VSCAs would be established on the inner Great Meadow and Laguna Green. The VSCAs would have barriers to separate the VSCAs from other uses.

Although this alternative would separate the variety of visitor experiences of the area, impacts would be expected to be long term, minor to moderate, and adverse. Having dogs under voice and sight control would increase the risk of dog bites/attacks since dog owners would not have the control of a leash. An additional risk from dog-to-dog interaction could result from people trying to separate dogs, which could increase the chances of injuries occurring.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. Any dog walker, commercial or private, can obtain a permit to walk more than three dogs with a limit of six dogs on leash. In a VSCA, permit holders may have up to six dogs off-leash and the permit may restrict use by time and area. Permits would be allowed at Fort Mason. Impacts to health and safety from permit holders with six dogs off-leash are expected to increase under this alternative; however, impacts are not expected to increase enough to cause a change in the threshold level since the percentage of commercial dog walkers is considered low to moderate at Fort Mason. Impacts to health and safety from commercial dog walkers would be similar to impacts from other dog walkers as summarized previously, therefore impacts from commercial dog walking would be long-term minor to moderate, and adverse.

Cumulative Impacts. Projects and actions in and near Fort Mason considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor to moderate adverse impacts associated with alternative C of the dog management plan, cumulative impacts to human health and safety would be negligible to long term, minor, and adverse.

FORT MASON ALTERNATIVE C CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor to moderate adverse impacts, assuming compliance	Incidents related to unruly or aggressive dogs that may place visitors and park staff health or safety at risk would continue	Negligible impacts to long-term minor adverse cumulative impacts	Beneficial to no change, assuming compliance

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, on-leash dog walking would be allowed at the Great Meadow, sidewalks, paved trails, open areas around housing, and on the lawn below the Laguna Street path. A VSCA would be established in the Laguna Green area.

Impacts on the health and safety of park visitors and staff would be expected to be long term, minor to moderate, and adverse. Having dogs under voice and sight control would increase the risk of dog bites/attacks since dog owners would not have the control of a leash. An additional risk from dog-to-dog interaction could result from people trying to separate dogs, which could increase the chances of injuries occurring.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D. There would be no impact on human health and safety from commercial dog walking.

Cumulative Impacts. Projects and actions in and near Fort Mason considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor to moderate adverse impacts associated with alternative D of the dog management plan, cumulative impacts to human health and safety would be negligible to long term, minor, and adverse.

FORT MASON ALTERNATIVE D CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor to moderate adverse impacts, assuming compliance	Incidents related to unruly or aggressive dogs that may place visitors and park staff health or safety at risk would continue	Negligible to long-term, minor, adverse cumulative impacts	Beneficial to no change, assuming compliance

Alternative E: Most Dog Walking Access / Most Management Intensive. Alternative E would have the same dog walking restrictions as alternative C and impacts to human health and safety would be the same: long term, minor to moderate, and adverse.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. Any dog walker, commercial or private, can obtain a permit to walk more than three dogs with a limit of six dogs on leash. In a VSCA, permit holders may have up to six dogs off-leash and the permit may restrict use by time and area. Permits would be allowed at Fort Mason. Impacts to health and safety from permit holders with six dogs off-leash are expected to increase under this alternative; however, impacts are not expected to increase enough to cause a change in the threshold level since the percentage of commercial dog walkers is considered low to moderate at Fort Mason. Impacts to

health and safety from commercial dog walkers would be similar to impacts from other dog walkers as summarized previously, therefore impacts from commercial dog walking would be long-term minor to moderate, and adverse.

Cumulative Impacts. Cumulative impacts to human health and safety would be the same as alternative C: negligible to long term, minor, and adverse.

FORT MASON ALTERNATIVE E CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor to moderate adverse impacts, assuming compliance	Incidents related to unruly or aggressive dogs that may place visitors and park staff health or safety at risk would continue; commercial dog walking would contribute to adverse impacts	Negligible to long-term, minor, adverse cumulative impacts	Beneficial to no change, assuming compliance

Alternative F: Preferred Alternative. The preferred alternative would allow on-leash dog walking on the multi-use Fort Mason Bay Trail; Black Point Battery Trail; Great Meadow paths and grass areas; several grass areas between Van Ness Avenues south of Building 9 and Franklin Street; all sidewalks; the grass areas east of Building 101; and the triangulated grass area within Shafer Court. A VSCA would be established on the Laguna Green. Fencing and/or other landforms, including a vegetative barrier would be installed at the VSCA to prevent dogs from entering the road or other on-leash dog walking areas.

Long-term minor to moderate adverse impacts on the health and safety of park visitors and staff would be anticipated. Having dogs under voice and sight control would increase the risk of dog bites/attacks since dog owners would not have the control of a leash. A fence or vegetative barrier would be installed along portions of the VSCA; the barrier would minimize impacts to health and safety. An additional risk from dog-to-dog interaction could result from people trying to separate dogs, which could increase the chances of injuries occurring.

All dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. Permits would be allowed at Fort Mason. Any dog walker, commercial or private, can obtain a permit to walk more than three dogs with a limit of six dogs on leash. Impacts to health and safety from permit holders with six dogs off-leash are expected to increase under this alternative; however, impacts are not expected to increase enough to cause a change in the threshold level since the percentage of commercial dog walkers at Fort Mason is considered low to moderate. Impacts to health and safety from commercial dog walkers would be similar to impacts from other dog walkers as summarized previously, therefore impacts from commercial dog walking would be long-term minor to moderate and adverse.

Cumulative Impacts. Projects and actions in and near Fort Mason were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on health and safety at or in the vicinity of Fort Mason.

The improvement of the San Francisco Bay Trail at Laguna Street and Marina Boulevard at Fort Mason is part of park stewardship programs, and included enhancement of visitor safety and experience, improved pedestrian and bicyclist traffic flow, and revegetation of the landscape (GGNPC 2016, 1–2). The proposed extension of the Municipal Railway’s Historic Streetcar Service would continue the F-line three blocks west from San Francisco Maritime National Historic Park through the Fort Mason Tunnel to the

Fort Mason Center at GGNRA, for a total additional distance of about 0.85 mile (NPS 2010h, 1). The park’s *Fire Management Plan* would create defensible space around buildings that adjoin wildland fuels and would require the park to work closely with the Presidio Fire Department in wildlife planning and management actions (NPS 2005b, 63). Fort Mason has been identified as a key site targeted for increasing accessibility in GGNRA. Improvements were made at Fort Mason in accessibility of picnic areas, camping views, beaches, restrooms, interpretive and wayfinding signs, and parking and accessible routes to these amenities. Beneficial impacts on human health and safety would occur from these projects.

Under the preferred alternative, the long-term, minor to moderate, adverse impacts to the health and safety of park staff and visitors from dogs at Fort Mason, together with effects of the projects mentioned above were considered. The benefits to the health and safety of park staff and visitors from the park’s park stewardship programs and *Fire Management Plan* (NPS 2005b) is expected to reduce some of the adverse impacts of this alternative. Therefore, the cumulative impacts to the health and safety of park staff and visitors from dogs at Fort Mason are expected to be negligible to long-term, minor, and adverse.

FORT MASON PREFERRED ALTERNATIVE F CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor to moderate and adverse impacts, assuming compliance	Incidents related to unruly or aggressive dogs under voice and sight control in a VSCA that may place visitors and park staff health or safety at risk would continue; commercial dog walking would contribute to adverse impacts	Negligible to long-term, minor, adverse cumulative impacts	Beneficial, assuming compliance

Crissy Field

Common to All Alternatives. Analysis of impacts from dog regulations proposed for Crissy Field would be the same for all alternatives despite two different definitions of the Crissy Field WPA (for alternative A, the definition is found in 36 CFR 7.97(d); for alternatives B–E, the WPA is defined as the Warming Hut to approximately 900 feet east of the former Coast Guard Pier). Even though the WPA would be expanded for alternatives B–E, this change would not influence the overall impacts analysis at this site because it would neither increase nor decrease the impacts at Crissy Field described in the paragraphs that follow. Further explanation of these two definitions can be found in the “Current Regulations and Policies” section of chapter 2.

Alternative A: No Action. Dogs are currently allowed on leash or under voice control throughout the Crissy Field site (WPA, Promenade, Crissy Airfield, trails, grassy areas and east and central beaches), although there is a seasonal leash restriction in the WPA (July 1 through May 15) to protect the western snowy plover. Crissy Marsh is currently closed to dogs. Visitor use at Crissy Field is considered moderate to high for walkers, bicyclists, runners, dog walkers, and commercial dog walkers. Visitor use in the WPA is considered high for beachgoers, walkers, and runners, and low to moderate for dog walkers (table 10). Between 2008 and 2011, a total of 510 pet-related incidents were recorded at this site. Pet-related violations included 73 cases of visitors walking dogs in closed areas, 65 leash law violations, 17 hazardous conditions violations (including 14 dog bites/attacks/aggressive behavior), 3 pet excrement violation, and 1 unattended pet violation (table 38a). The largest number of violations (283) were dispensed in the Crissy Field WPA. Between 2012 and 2016, a total of 98 pet-related violations were recorded at the site. Incidents included 35 animal complaints, 29 leash law violations, 12 resource

violations, 11 dog bites, 8 dog walkers in closed areas, and 3 dog/wildlife interactions (table 38b). NPS recently installed new fencing, gates, and signs at the eastern boundary of the WPA at Crissy Field to better mark where dog walking restrictions start. Gates and signs were also installed at trail entry points to the WPA.

Under the no-action alternative, on-leash dog walking impacts on the health and safety of park visitors would continue to be long term, moderate to major, and adverse. Impacts would be moderate to major since the number of violations, pet-related incidents, and pet rescues has been high in past years. The chance of dog bites/attacks, conflicts between dogs and visitors, and rescues would continue to exist. Some visitors may choose a different site to recreate because of the safety issues at Crissy Field.

Under alternative A, no permit system exists for dog walking. However, at Crissy Field, commercial dog walking is considered a moderate to high use activity. Therefore, commercial dog walking would contribute to the long-term minor to moderate adverse impacts on human health and safety due to the increased risk of dog-related incidents.

Cumulative Impacts. Projects and actions in and near Crissy Field were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on human health and safety at or in the vicinity of Crissy Field.

The Crissy Field Restoration Project, which began in 1998, restored the Crissy Field tidal marsh and dune habitat and also incorporated fully accessible shoreline Promenade, trails, boardwalks, overlooks, picnic areas, seating areas, and bike and inline skate paths. The Doyle Drive replacement project will replace the 73-year-old Doyle Drive and make structural and seismic improvements that will take place on lands in area B of the Presidio (USDOT 2009, 1; Presidio Parkway 2010, 1). The park’s *Fire Management Plan* would create defensible space around buildings that adjoin wildland fuels and would require the park to work closely with the Presidio Fire Department in wildlife planning and management actions. Beneficial impacts on human health and safety would occur from these projects (NPS 2005b, 63). The impacts resulting from the past oil spill would add little to the cumulative impacts on health and safety since those impacts were found to be negligible.

Under alternative A, the long-term, moderate to major, adverse impacts to the health and safety of park staff and visitors from dogs at Crissy Field, together with effects of the projects mentioned above were considered. The benefits to the health and safety of park staff and visitors from the Crissy Field Restoration Project, Doyle Drive replacement project, and the park’s *Fire Management Plan* (NPS 2005b) is not expected to reduce the adverse impact of this alternative; therefore the cumulative analysis for this park site will focus on the results of the impact analysis for this alternative. The beneficial effects from the above actions along with the long term, moderate to major, and adverse impacts from alternative A would result in long-term, moderate to major, and adverse cumulative impacts.

CRISSY FIELD ALTERNATIVE A CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term moderate to major adverse impacts	Incidents related to unruly or aggressive dogs that may place visitors and park staff health or safety at risk would continue; history of incidents is high	Long-term moderate to major adverse cumulative impacts	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Under alternative B, no dog walking would be allowed in the WPA. Crissy Marsh would remain closed to dogs. Therefore, assuming compliance, no impacts on health and safety would occur in the WPA since the chance of dog-related incidents would no longer exist. Additionally, prohibiting dogs in this area would eliminate the risk of exposure to pathogens or diseases associated with dog waste. On-leash dog walking would be allowed along the Promenade, Crissy Airfield, East Beach, Central Beach, the paths to Central Beach, the trails and grassy areas near East Beach, around the Old Coast Guard Station, and on the Mason Street Bike Path.

In these other areas, long-term minor adverse impacts on the health and safety of park visitors and staff would be anticipated. Having dogs on leash would minimize the risk of dog bites/attacks; however, the chance of individuals encountering unruly or aggressive dogs would still exist. Impacts on the health and safety of park staff during the initial education and enforcement phase at these sites would result from the potential for visitors knowledgeable of the former regulations confronting and possibly challenging park staff. Compliance has been a challenge in this area in the past and there has been a history of confrontations between visitors and park staff. Impacts on the health and safety of park staff would be short term, moderate, and adverse.

During the public comment period, the public shared their experiences with off-leash dogs at Crissy Field. One commenter stated, “I fully support your plan to require dogs to be ON leash in park areas. Crissy field is a virtual dog run at this point. Overrun with dogs off leash. Dogs are never under voice command, despite what owners think. My daughter has been jumped by dogs a number of times, being knocked down as well as receiving large scratches on her legs. This has happened both at Crissy field and Ocean Beach. Please put them safely on their leashes” (NPS 2011a, Correspondence 688). Another commenter stated, “I fully support the dog plan and welcome having dogs leashed. I walk many mornings along East and West beach. I love to walk in the sand but it is increasingly difficult with all of the unleashed dogs. These dogs continually approach me and jump on me which I do not appreciate. A large dog jumped on my 3 year old grandson one afternoon and when I asked the owner to call her dog, she unleashed a torrent of foul language. I have tripped over these dogs and been hit on the back of my head with tennis balls that owners are throwing on more than one occasion. Although most owners are responsible for cleaning up the dog poop, not all do. On many days my pleasurable walk is ruined and at times dangerous” (NPS 2011a, Correspondence 2930).

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person with no permit required. Since commercial dog walking is common at Crissy Field, the new regulation would have beneficial impacts on human health and safety. There would be a limit on the number of dogs allowed per person, which should result in a reduction of dog-related injuries. Commercial dog walkers would have fewer dogs and would have more control of their dogs.

Cumulative Impacts. Projects and actions in and near Crissy Field considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor adverse impacts associated with alternative B of the dog management plan, cumulative impacts to human health and safety would be long term, minor, and adverse.

CRISSY FIELD ALTERNATIVE B CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
No impact in WPA, assuming compliance	Dogs would be prohibited		
Long-term minor adverse impacts in other areas under dog management, assuming compliance	Continued risk to safety and health of visitors and park staff from potential incidents resulting from unruly or aggressive dogs would exist; however, leash requirements would reduce opportunity by providing more control over dogs; area experiences high use	Long-term minor adverse cumulative impacts	Beneficial, assuming compliance
Short-term moderate adverse impacts on park staff during education and enforcement period	Increased confrontations with visitors/dogs could occur		

Alternative C: Emphasis on Multiple Use – Balanced by County. Under alternative C, no dog walking would be allowed in the WPA. Assuming compliance, no impacts on health and safety in this area would occur and the chance of dog-related incidents would no longer exist. Additionally, restricting dogs from this area would eliminate the risk of exposure to pathogens or diseases associated with dog waste. On-leash dog walking would be allowed along the Promenade, the paths to Central Beach, the trails and grassy areas near East Beach, around the Old Coast Guard Station, on portions of Crissy Airfield, and on the Mason Street Bike Path. Crissy Marsh would remain closed to dogs. VSCAs would be established on the Crissy Airfield and Central Beach.

Long-term minor to moderate impacts on human health and safety would be expected in areas other than the WPA. Having dogs under voice and sight control at the site would increase the risk for dog bites/attacks and user conflicts. Crissy Field is a high use area with a variety of visitor experiences which also increases the chance of dog-related incidents occurring. Dog-to-dog interactions could result in additional risk from people trying to separate dogs, which could increase the chances of injuries. During the public comment period, the public described their opinions of use of GGNRA by dog walkers. One commenter stated, “I have been attacked by dogs at the beach near Fort Funston, at other parts of Ocean Beach, at the wildlife zone at Crissy Field and at the part of the beach just west of the Saint Francis yacht club. They did not bite me but I was very scared. Two of those times the dog owner was mad at me for trying to scare their dog away even though their dog almost bit me. I have seen dogs off leashes attack horses at the beach near Fort Funston and attack other dogs and other people at Ocean Beach, and Crissy Field. I have seen many dog owners let their dogs go to the bathroom on the beach and I often find plastic bags filled with dog waste on the beach. I am getting older and I am worried about what might happen in the future if a dog tries to bite me and I am too old to defend myself. Sometimes I am the only person around except for the dog owner, who may not catch a dog in time. I see some older people fishing sometimes and I wonder what would happen to them” (NPS 2011a, Correspondence 4056).

During the initial education and enforcement period, short-term moderate adverse impacts on the health and safety of park staff would be expected based on the documented history of confrontation between visitors with dogs and park staff at the site and the expectation of confrontations resulting from the new dog management regulations.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. Permits would be allowed at Crissy Field. Any dog walker, commercial or private, can obtain a permit to walk more than three dogs with a limit of six dogs on leash. In a VSCA, permit holders may have up to six dogs off-leash and the permit may restrict use by time and area. Adverse impacts to health and safety from permit holders are expected to increase under this alternative due to the increase to six dogs off-leash. Since commercial dog walking is moderate to high at this site impacts to health and safety would be long-term, moderate, and adverse.

Cumulative Impacts. Projects and actions in and near Crissy Field considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor to moderate adverse impacts associated with alternative C of the dog management plan, cumulative impacts to human health and safety would be long term, minor to moderate, and adverse.

CRISSY FIELD ALTERNATIVE C CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
No impacts in the WPA, assuming compliance	Dogs would be prohibited	Long-term minor to moderate adverse cumulative impacts	Beneficial to no change, assuming compliance
Long-term minor to moderate adverse impacts in other areas under dog management, assuming compliance	Continued risk to safety and health of visitors and park staff from potential incidents resulting from unruly or aggressive dogs would exist; however, leash requirements would reduce opportunity by providing more control over dogs; area experiences high use; commercial dog walking would contribute to adverse impacts		
Short-term moderate adverse impacts on park staff during education and enforcement period	Increased confrontations involving visitors/dogs could occur		

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, no dog walking would be allowed in the WPA or on the east and central beaches. Crissy Marsh would remain closed to dogs. No impacts on health and safety would occur on the beaches since the chance of dog-related incidents would no longer exist. Additionally, restricting dogs from this area would eliminate the risk of exposure to pathogens or diseases associated with dog waste. On-leash dog walking would be allowed along the Promenade, the eastern section of Crissy Airfield, and the trails and grassy areas near East Beach. No dog walking would be allowed in the West Bluff picnic area. A VSCA would be established on Crissy Airfield west of the easternmost north-south path.

Impacts on human health and safety would be expected to be long term, minor to moderate, and adverse in areas that allow dogs. Requiring dogs to be on leash in most areas would reduce the number of dog-related incidents (bites/attacks and rescues). However, since Crissy Field is a heavily used site that provides a variety of visitor experiences, especially for dog walkers, and dog walking would be allowed under voice and sight control without the control of a leash, the chance of dog bites and other physical injuries occurring would exist. An additional risk from dog-to-dog interaction could result from people

trying to separate dogs, which could increase the chances of injuries occurring. Short-term moderate adverse impacts on park staff would be expected during the initial education and enforcement period. Based on the history of confrontations between visitors and staff it is likely that some visitors may challenge the new dog management regulations in this area.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D; therefore, there would be no impact on human health and safety from commercial dog walking.

Cumulative Impacts. Projects and actions in and near Crissy Field considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor to moderate adverse impacts associated with alternative D of the dog management plan, cumulative impacts to human health and safety would be long term, minor to moderate, and adverse.

CRISSY FIELD ALTERNATIVE D CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
No impact in the WPA, assuming compliance	Dogs would be prohibited	Long-term minor to moderate adverse cumulative impacts	Beneficial to no change assuming compliance
Long-term minor to moderate adverse impacts in other areas under dog management	Continued risk to safety and health of visitors and park staff from potential incidents resulting from unruly or aggressive dogs would exist; however, leash requirements would reduce opportunity by providing more control over dogs; site experiences high use		
Short-term moderate adverse impacts on park staff during education period	Increased confrontations involving visitors/dogs could occur		

Alternative E: Most Dog Walking Access / Most Management Intensive. Under alternative E, on-leash dog walking would be allowed along the Promenade, the WPA, East Beach, the trails and grassy areas near East Beach, around the Old Coast Guard Station, West Bluff picnic area, and on the Mason Street Bike Path. Crissy Marsh would be closed to dogs. VSCAs would be established on Crissy Airfield and Central Beach.

Long-term minor to moderate adverse impacts on the health and safety of park visitors and staff would be anticipated at Crissy Field and the WPA. The chance of visitors and staff encountering uncontrolled aggressive or unruly dogs would exist, especially in the VSCAs. Having dogs under voice and sight control would increase the risk of dog bites and other dog-related injuries. In the past few years, dog-related incidents have been recorded at this site. An additional risk from dog-to-dog interaction could result from people trying to separate dogs, which could increase the chances of injuries occurring. Based on the history of confrontations between visitors and staff it is likely that some visitors may challenge the new dog management regulations in this area. Therefore, impacts on park staff during the initial education and enforcement period would be short-term, moderate, and adverse.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. Permits would be allowed at Crissy Field. Any dog walker, commercial or private, can obtain a permit to walk more than three dogs with a limit of six dogs on leash. In a VSCA, permit holders may have up to six dogs off-leash and the permit may restrict use by time and area. Adverse impacts to health and safety from permit holders are expected to increase under this alternative due to the increase to six dogs off-leash. Since commercial dog walking is moderate to high at this site impacts to health and safety would be long-term, moderate, and adverse.

Cumulative Impacts. Projects and actions in and near Crissy Field considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor to moderate adverse impacts associated with alternative E of the dog management plan, cumulative impacts to human health and safety would be long term, minor to moderate, and adverse.

CRISSY FIELD ALTERNATIVE E CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor to moderate adverse impacts in WPA and other areas under dog management	Continued risk to safety and health of visitors and park staff from potential incidents resulting from unruly or aggressive dogs would exist; however, leash requirements would reduce opportunity by providing more control over dogs; site experiences high use; commercial dog walkers would contribute to adverse impacts	Long-term minor to moderate adverse cumulative impacts	Beneficial to no change, assuming compliance
Short-term moderate adverse impacts on park staff during education period	Increased confrontations between visitors and dogs could occur		

Alternative F: Preferred Alternative. Dog walking under voice and sight control would be available in VSCAs on the central section of Crissy Airfield and Central Beach. The VSCA on the central section of Crissy Airfield would be bounded by paths on the eastern and western edges and by on-leash buffers along its northern and southern boundaries with landscape design demarcations. The design will create buffers between the off-leash dog area and the multi-use pathways at the Promenade and Mason Street. Additionally, the western path would separate dogs from the no-dog area in the western portion of the airfield. The VSCA on Crissy Airfield could be adjusted by approximately one acre to allow for future potential design updates and safety improvements, as proposed in future planning projects. On-leash dog walking would be available along the promenade, the eastern section of Crissy Airfield, the paths to Central Beach, trails, flat grass, and composite areas near East Beach, between the Promenade Cut-off Trail and the park boundary, the East Beach parking lot, paths and hardened areas around the Old Coast Guard Station, the Mason Street bike path, and Crissy Field Warming Hut picnic area. Dogs would not be allowed in the Crissy Field WPA, or on East Beach, or within the West Bluff picnic area or the western section of Crissy Airfield.

Long-term minor to moderate adverse impacts on the health and safety of park visitors and staff would be anticipated at Crissy Field. The chance of visitors and staff encountering uncontrolled aggressive or

unruly dogs would exist, especially in the VSCAs. Having dogs under voice and sight control would continue the risk of dog bites and other dog-related injuries. In the past few years, dog-related incidents have been recorded at this site. An additional risk from dog-to-dog interaction could result from people trying to separate dogs, which could increase the chances of injuries occurring. Based on the history of confrontations between visitors and staff it is likely that some visitors may challenge the new dog management regulations in this area. Therefore, impacts on park staff during the initial education and enforcement period would be short-term, moderate, and adverse.

Under the preferred alternative, all dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. Permits would be issued for Crissy Field. Any dog walker, commercial or private, can obtain a permit to walk more than three dogs with a limit of six dogs on leash. In a VSCA, permit holders may have up to six dogs off-leash and the permit may restrict use by time and area. Adverse impacts to health and safety from permit holders are expected to increase under this alternative due to the increase to six dogs off-leash. Since commercial dog walking is moderate to high at this site impacts to health and safety would be long-term, moderate, and adverse.

Cumulative Impacts. Projects and actions in and near Crissy Field were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on human health and safety at or in the vicinity of Crissy Field.

The Crissy Field Restoration Project, which began in 1998, restored the Crissy Field tidal marsh and dune habitat and also incorporated a fully accessible shoreline Promenade, trails, boardwalks, overlooks, picnic areas, seating areas, and bike and inline skate paths. The Doyle Drive replacement project will replace the 73-year-old Doyle Drive and make structural and seismic improvements that will take place on lands in area B of the Presidio (USDOT 2009, 1; Presidio Parkway 2010, 1). The park's *Fire Management Plan* would create defensible space around buildings that adjoin wildland fuels and would require the park to work closely with the Presidio Fire Department in wildlife planning and management actions. Beneficial impacts on human health and safety would occur from these projects (NPS 2005b, 63). The impacts resulting from the past oil spill would add little to the cumulative impacts on health and safety since those impacts were found to be negligible.

Under the preferred alternative, the long-term, minor to moderate, adverse impacts to the health and safety of park staff and visitors from dogs at Crissy Field, together with effects of the projects mentioned above were considered. The benefits to the health and safety of park staff and visitors from the Crissy Field Restoration Project, Doyle Drive replacement project, and the park's *Fire Management Plan* (NPS 2005b) is not expected to reduce the adverse impact of this alternative; therefore, the cumulative analysis for this park site will focus on the results of the impact analysis for this alternative. The beneficial effects from the above actions along with the long-term, minor to moderate, and adverse impacts from the preferred alternative would result in long-term, minor to moderate, and adverse cumulative impacts.

CRISSY FIELD PREFERRED ALTERNATIVE F CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor to moderate adverse impacts in areas under dog management	Continued risk to safety and health of visitors and park staff from potential incidents resulting from unruly or aggressive dogs would exist; however, leash requirements would reduce opportunity by providing more control over dogs; site experiences high use; commercial dog walkers would contribute to adverse impacts	Long-term minor to moderate adverse cumulative impacts	Beneficial to no change, assuming compliance
Short-term moderate adverse impacts on park staff during education period	Increased confrontations between visitors and dogs could occur		

Fort Point Promenade/Fort Point National Historic Site Trails

Alternative A: No Action. Under alternative A, on-leash dog walking would be allowed on the Fort Point Promenade, the Battery East Trail, Andrews Road, the Presidio Promenade, and the grassy area near the restrooms. Visitor use in this area is considered moderate to high, with mostly runners, bicyclists, walkers, and dog walkers using the area. Dog walking is considered a low use activity (table 10). Between 2008 and 2011, a total of 23 pet-related incidents were recorded at this site. Pet-related violations included 15 leash law violations, 3 cases of visitors walking dogs in closed areas, one dog bite/attack, and one pet rescue (table 38a). No unattended pet or pet excrement violations were documented at this site between 2008 and 2011. A total of 5 pet-related incidents were recorded at the site between 2012 and 2018 (table 38b). Violations were for animal complaints (3) and leash law violations (2) (table 38b).

Under the no-action alternative, on-leash dog walking impacts on human health and safety would continue to be long term, minor to moderate, and adverse. In past years, violations have been issued for pet rescues and for noncompliance with the leash regulations. The risk of injury would continue for staff rescuing dogs under the no-action alternative. Visitors and staff would also be at risk if they encounter an uncontrolled aggressive dog.

Under alternative A, no permit system exists for dog walking. At Fort Point, commercial dog walking is uncommon. Therefore, commercial dog walking would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Fort Point Promenade/Fort Point NHS Trails were considered for the cumulative impacts analysis (appendix K). In addition to the Doyle Drive replacement project described under alternative A for Crissy Field, the following is a discussion of projects that have had, are currently having, or will have effects on health and safety at or in the vicinity of Fort Point.

The park's *Fire Management Plan* would create defensible space around buildings that adjoin wildland fuels and would require the park to work closely with the Presidio Fire Department in wildlife planning and management actions (NPS 2005b, 63). Beneficial impacts on human health and safety would occur from these projects.

Under alternative A, the long-term, minor to moderate, adverse impacts to the health and safety of park staff and visitors from dogs at Fort Point, together with effects of the projects mentioned above were considered. The benefits to the health and safety of park staff and visitors from the site improvements and the park’s *Fire Management Plan* (NPS 2005b) are not expected to reduce the adverse impact of this alternative; therefore the cumulative analysis for this park site will focus on the results of the impact analysis for this alternative. The beneficial effects from the above actions along with the long-term, minor to moderate, and adverse impacts from alternative A would result in long-term, minor to moderate, and adverse cumulative impacts.

FORT POINT PROMENADE/FORT POINT NATIONAL HISTORIC SITE TRAILS ALTERNATIVE A CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor to moderate adverse impacts	Leash law violations and pet-related safety incidents (rescues) would continue to occur; site experiences low to high dog walking use	Long-term, minor to moderate adverse cumulative impacts	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Alternative B would be the same as alternative A. On-leash dog walking would be allowed along the Fort Point Promenade, the Battery East Trail, Andrews Road, the Presidio Promenade, and the grassy area near the restrooms.

The chance of park visitors and staff encountering uncontrolled aggressive dogs would exist. Although dogs would be on leash, there would still be the chance of dog bites and other physical injuries occurring. Long-term minor adverse impacts on health and safety would be anticipated due to the moderate to high use of the site, its variety of visitor experiences, and the past dog-related violations that have occurred. Dog rescues may also be needed at this site under this alternative, resulting in safety risks to park staff, visitors, and dogs.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person with no permit required. Since commercial dog walking is not common at Fort Point, it is likely that the new permit regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Fort Point considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor adverse impacts associated with alternative B of the dog management plan, cumulative impacts to human health and safety would be long term, minor, and adverse.

FORT POINT PROMENADE/FORT POINT NATIONAL HISTORIC SITE TRAILS ALTERNATIVE B CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor adverse impacts, assuming compliance	Continued risk to safety and health of visitors and park staff from potential incidents resulting from unruly or aggressive dogs would exist	Long-term, minor, adverse cumulative impacts	Beneficial to no change, assuming compliance

Alternative C: Emphasis on Multiple Use – Balanced by County. Alternative C would have the same dog walking restrictions as alternative B and impacts to human health and safety would be the same: long term, minor, and adverse.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Fort Point is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking is not common at Fort Point, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Cumulative impacts to human health and safety would be the same as alternative B: long term, minor, and adverse.

FORT POINT PROMENADE/FORT POINT NATIONAL HISTORIC SITE TRAILS ALTERNATIVE C CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor adverse impacts, assuming compliance	Continued risk to safety and health of visitors and park staff from potential incidents resulting from unruly or aggressive dogs would exist	Long-term, minor, and adverse cumulative impacts	Beneficial to no change, assuming compliance

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, on-leash dog walking would be allowed only along the Battery East Trail. Limiting the area available to dog walking would minimize the risk of dog-related incidents. However, impacts would be long term, minor, and adverse, since the chance of park visitors and staff encountering uncontrolled aggressive or unruly dogs would still exist.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D; therefore, there would be no impact on human health and safety from commercial dog walking.

Cumulative Impacts. Projects and actions in and near Fort Point considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor adverse impacts associated with alternative D of the dog management plan, cumulative impacts to human health and safety would be long term, minor, and adverse.

FORT POINT PROMENADE/FORT POINT NATIONAL HISTORIC SITE TRAILS ALTERNATIVE D CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor adverse impacts, assuming compliance	Continued risk to safety and health of visitors and park staff from potential incidents resulting from unruly or aggressive dogs would exist	Long-term, minor, and adverse cumulative impacts	Beneficial to no change, assuming compliance

Alternative E: Most Dog Walking Access / Most Management Intensive. Alternative E would have the same dog walking restrictions as alternative B and impacts to human health and safety would be the same: long term, minor, and adverse.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Fort Point is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking is not common at Fort Point, it is likely that the new permit regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Cumulative impacts to human health and safety would be the same as alternative B: long term, minor, and adverse.

FORT POINT PROMENADE/FORT POINT NATIONAL HISTORIC SITE TRAILS ALTERNATIVE E CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor adverse impacts, assuming compliance	Continued risk to safety and health of visitors and park staff from potential incidents resulting from unruly or aggressive dogs would exist	Long-term, minor, and adverse cumulative impacts	Beneficial to no change, assuming compliance

Alternative F: Preferred Alternative. The preferred alternative would include on-leash dog walking along the Fort Point Promenade, Bay Trail, Battery East Trail, Andrews Road, Presidio Promenade, and the Coastal Trail west of the Golden Gate Bridge.

The chance of park visitors and staff encountering uncontrolled aggressive dogs would exist. Although dogs would be on leash, there would still be the chance of dog bites and other physical injuries occurring. Long-term minor adverse impacts on health and safety would be anticipated due to the moderate to high use of the site, its variety of visitor experiences, and the past dog-related violations that have occurred. Dog rescues may also be needed at this site under this alternative, resulting in safety risks to park staff, visitors, and dogs.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Fort Point is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking is not common at Fort Point, it is likely that the new permit regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Fort Point Promenade/Fort Point NHS Trails were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on health and safety at or in the vicinity of Fort Point.

Improvements are being made to Fort Point facilities to improve visitor accessibility (NPS 2010g, 1). The Doyle Drive replacement project will replace the 73-year-old Doyle Drive and make structural and seismic improvements that will take place on lands in area B of the Presidio (USDOT 2009, 1; Presidio Parkway 2010, 1). The park’s *Fire Management Plan* would create defensible space around buildings that adjoin wildland fuels and would require the park to work closely with the Presidio Fire Department in wildlife planning and management actions (NPS 2005b, 63). Beneficial impacts on human health and safety would occur from these projects.

Under the preferred alternative, the long-term, minor, adverse impacts to the health and safety of park staff and visitors from dogs at Fort Point, together with effects of the projects mentioned above were considered. The benefits to the health and safety of park staff and visitors from the site improvements and the park’s *Fire Management Plan* (NPS 2005b) are not expected to reduce the adverse impact of this

alternative; therefore the cumulative analysis for this park site will focus on the results of the impact analysis for this alternative. The beneficial effects from the above actions along with the long-term, minor and adverse impacts from the preferred alternative would result in long-term, minor, and adverse cumulative impacts.

**FORT POINT PROMENADE/FORT POINT NATIONAL HISTORIC SITE TRAILS PREFERRED ALTERNATIVE F
CONCLUSION TABLE**

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor adverse impacts, assuming compliance	Continued risk to safety and health of visitors and park staff from potential incidents resulting from unruly or aggressive dogs would exist	Long-term, minor, adverse cumulative impacts	Beneficial to no change, assuming compliance

Baker Beach and Bluffs to Golden Gate Bridge

Alternative A: No Action. Currently, on-leash dog walking is allowed on all trails except the Batteries to Bluffs Trail, and dog walking under voice control is allowed on the beach north of Lobos Creek. Visitor use in this area is considered low to moderate for beachgoers and picnickers, and low to moderate for dog walkers (table 10). Between 2008 and 2011, a total of 86 pet-related incidents were recorded at this site. Pet-related violations included 48 leash law violations, 20 cases of visitors walking dogs in closed areas, six hazardous conditions violations (including 4 dog bites/attacks), 1 pet excrement violation and one unattended pet violation (table 38a). Between 2012 and 2016, a total of 49 pet-related incidents were recorded at this site (table 38b). Violations included 18 animal complaints, 10 dog walkers in closed areas, 9 dog bites, 8 violations for leash laws, and two dog/wildlife interactions, and two resource violations (table 38b).

Under the no-action alternative, long-term minor to moderate adverse impacts on health and safety from on-leash dog walking would continue. Having dogs under voice control would continue to increase the risk of dog bites and other dog/visitor conflicts. Dog walkers do not have as much control of their dogs when they are off leash. In addition, the percentage of dog walkers at Baker Beach and Bluffs to Golden Gate Bridge is low to moderate. The large size of the beach reduces contact among visitors and dogs by allowing visitors to spread out.

Under alternative A, no permit system exists for dog walking. At Baker Beach, commercial dog walking is uncommon. Therefore, it is likely that commercial dog walking has a negligible impact on human health and safety at this site.

Cumulative Impacts. Projects and actions in and near Baker Beach and Bluffs to Golden Gate Bridge were considered for the cumulative impacts analysis. The following is a discussion of projects that have had, are currently having, or will have effects on human health and safety at or in the vicinity of Baker Beach.

Between August and November of 2007, 73,000 tons of landfill debris was unearthed by excavators at Baker Beach and conveyed to the top of the cliffs as part of a restoration effort (Presidio Trust 2010a, 1). Additionally, in 2008, park stewardship programs completed improvements on the Batteries to Bluffs Trail on the bluffs just north of Baker Beach. The park's *Fire Management Plan* would create defensible space around buildings that adjoin wildland fuels and would require the park to work closely with the Presidio Fire Department in wildlife planning and management actions. Baker Beach has been identified

as a key site targeted for increasing accessibility in GGNRA. The project includes improvements in accessibility of picnic areas, camping views, beaches, restrooms, interpretive and wayfinding signs, and parking and accessible routes to these amenities. Beneficial impacts on human health and safety would occur from these projects (NPS 2005b, 63). The impacts resulting from the past oil spill would add little to the cumulative impacts on health and safety since those impacts were found to be negligible.

Under alternative A, the long-term, minor to moderate, adverse impacts to the health and safety of park staff and visitors from dogs at Baker Beach together with effects of the projects mentioned above were considered. The benefits to the health and safety of park staff and visitors from the site improvements and the park’s *Fire Management Plan* (NPS 2005b) are not expected to reduce the adverse impact of this alternative; therefore the cumulative analysis for this park site will focus on the results of the impact analysis for this alternative. The beneficial effects from the above actions along with the long-term, minor to moderate and adverse impacts from alternative A would result in long-term, minor to moderate, and adverse cumulative impacts.

BAKER BEACH AND BLUFFS TO GOLDEN GATE BRIDGE ALTERNATIVE A CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor to moderate adverse impacts	Dog walking under voice control would continue to add risk to safety and health of visitors and park staff from encounters with unruly or aggressive dogs	Long-term, minor to moderate adverse cumulative impacts	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Under alternative B, on-leash dog walking would be allowed on the beach and on all trails except the Batteries to Bluffs and Battery Crosby trails.

Although the chance of a visitor or staff person encountering an unruly dog and sustaining an injury still exists, requiring leashes would minimize impacts on health and safety. As a result, negligible impacts on health and safety would be anticipated. In addition, the large extent of the beach allows visitors to spread out, which further reduces the chance of conflicts between visitors and dogs.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person with no permit required. Since commercial dog walking is not common at Baker Beach, it is likely that the new permit regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Baker Beach considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative B of the dog management plan, cumulative impacts to human health and safety would be negligible.

BAKER BEACH AND BLUFFS TO GOLDEN GATE BRIDGE ALTERNATIVE B CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Leash restrictions and limitations on the number of dogs would reduce risk to safety and health of visitors and park staff	Negligible cumulative impacts	Beneficial, assuming compliance

Alternative C: Emphasis on Multiple Use – Balanced by County. Alternative C would have the same dog walking restrictions as alternative B and impacts to human health and safety would be the same: negligible.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. Any dog walker, commercial or private, can obtain a permit to walk more than three dogs with a limit of six dogs on leash and permits could restrict use by time and area. Permits would be allowed at Baker Beach. Impacts to health and safety from permit holders with six dogs are expected to increase under this alternative; however, impacts are not expected to increase enough to cause a change in the threshold level. Since commercial dog walking is not common at Baker Beach, it is likely that the new permit regulation would have no impact on the number of dog walkers. Therefore, commercial dog walking under alternative C would have a negligible impact on health and safety.

Cumulative Impacts. Cumulative impacts to human health and safety would be the same as alternative B: negligible.

BAKER BEACH AND BLUFFS TO GOLDEN GATE BRIDGE ALTERNATIVE C CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Leash restrictions and limitations on the number of dogs would reduce risk to safety and health of visitors and park staff	Negligible cumulative impacts	Beneficial, assuming compliance

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, on-leash dog walking would be allowed on the beach south of the north parking lot, on the trails to the beach south of the north parking lot, and on the Coastal Trail.

Impacts on the health and safety of park visitors and staff would be negligible. Requiring dogs to be walked on leash would minimize impacts. The chance of an individual being injured in a dog-related incident would still exist, but the large size of the beach allows visitors to spread out, which reduces the chances of conflicts between visitors and dogs.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D; therefore, there would be no impact on human health and safety from commercial dog walking.

Cumulative Impacts. Projects and actions in and near Baker Beach considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative D of the dog management plan, cumulative impacts to human health and safety would be negligible.

BAKER BEACH AND BLUFFS TO GOLDEN GATE BRIDGE ALTERNATIVE D CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Leash restrictions would reduce risk to safety and health of visitors and park staff	Negligible cumulative impacts	Beneficial, assuming compliance

Alternative E: Most Dog Walking Access / Most Management Intensive. Under alternative E, on-leash dog walking would be allowed on the beach north of the north parking lot and on all trails except the Batteries to Bluffs and the Battery Crosby trails. In addition, a VSCA would be allowed on the beach south of the north parking lot.

Long-term minor adverse impacts on health and safety would be expected under this alternative. Having dogs under voice and sight control would increase the risk of dog bites and other pet-related injuries. However, the large size of the beach allows visitors to spread out, which also reduces the chances of conflicts between visitors and dogs.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. Any dog walker, commercial or private, can obtain a permit to walk more than three dogs with a limit of six dogs on leash. In a VSCA, permit holders may have up to six dogs off-leash and the permit may restrict use by time and area. Permits would be allowed at Baker Beach. Impacts to health and safety from permit holders with six dogs off-leash are expected to increase under this alternative; however, impacts are not expected to increase enough to cause a change in the threshold level. Since commercial dog walking is not common at Baker Beach, it is likely that the new permit regulation would have no impact on the number of dog walkers. Therefore, commercial dog walking under alternative E would have a negligible impact on health and safety.

Cumulative Impacts. Projects and actions in and near Baker Beach considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor adverse impacts associated with alternative E of the dog management plan, cumulative impacts to human health and safety would be long term, minor, and adverse.

BAKER BEACH AND BLUFFS TO GOLDEN GATE BRIDGE ALTERNATIVE E CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor adverse impacts, assuming compliance	Voice and sight control in the VSCA would add risk to safety and health of visitors and park staff from encounters with unruly or aggressive dogs	Long-term, minor, adverse cumulative impacts	Beneficial to no change, assuming compliance

Alternative F: Preferred Alternative. The preferred alternative would allow on-leash dog walking on the North Beach between the north terminus of the beach and the Baker Beach Access Trail #2. On-leash dog walking would also be allowed on the Coastal Trail from the northern boundary of the site to the Baker Beach parking lot, Baker Beach Access Trails #1 and 2, the access paths from both the 25th Avenue gate to the beach and from that southern beach below NPS lands to a trail along the eastern side between the northern and southern parking lot to the intersection with the 25th Avenue path, and the North Picnic Area. No dog walking would be allowed in the South Picnic Area, on the beach south of

Baker Beach Access Trail #2, or on trails accessing the south section of Baker Beach, including the riparian area around Lobos Creek outlet.

Impacts on the health and safety of park visitors and staff would be negligible. Requiring dogs to be walked on leash would minimize impacts. The chance of an individual being injured in a dog-related incident would still exist, but the large size of the beach allows visitors to spread out, which reduces the chances of conflicts between visitors and dogs.

All dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. Any dog walker, commercial or private, can obtain a permit to walk more than three dogs with a limit of six dogs on leash and permits could restrict use by time and area. Permits would be allowed at Baker Beach. The North Beach, Baker Beach Access Trail #2, and the northern and southern parking lots would be open to dog walkers with four to six on-leash dogs with a NPS-issued permit. Impacts to health and safety from permit holders with six dogs are expected to increase under this alternative; however, impacts are not expected to increase enough to cause a change in the threshold level. Since commercial dog walking is not common at Baker Beach, it is likely that the new regulation would not have an impact on the number of dog walkers. Therefore, commercial dog walking under the preferred alternative would have a negligible impact on health and safety.

Cumulative Impacts. Projects and actions in and near Baker Beach and Bluffs to Golden Gate Bridge were considered for the cumulative impacts analysis. The following is a discussion of projects that have had, are currently having, or will have effects on health and safety at or in the vicinity of Baker Beach.

Between August and November of 2007, 73,000 tons of landfill debris was unearthed by excavators at Baker Beach and conveyed to the top of the cliffs as part of a restoration effort (Presidio Trust 2010a, 1). Additionally, in 2008, park stewardship programs completed improvements on the Batteries to Bluffs Trail on the bluffs just north of Baker Beach. The park’s *Fire Management Plan* would create defensible space around buildings that adjoin wildland fuels and would require the park to work closely with the Presidio Fire Department in wildlife planning and management actions (NPS 2005b, 63). Baker Beach has been identified as a key site targeted for increasing accessibility in GGNRA. The project includes improvements in accessibility of picnic areas, camping views, beaches, restrooms, interpretive and wayfinding signs, and parking and accessible routes to these amenities. Beneficial impacts on human health and safety would occur from these projects. The impacts resulting from the past oil spill would add little to the cumulative impacts on health and safety since those impacts were found to be negligible.

Under the preferred alternative, the negligible impacts to the health and safety of park staff and visitors from dogs at Baker Beach together with effects of the projects mentioned above were considered. The benefits to the health and safety of park staff and visitors from the site improvements and the park’s *Fire Management Plan* (NPS 2005b) along with the negligible impacts from the preferred alternative would result in negligible cumulative impacts.

BAKER BEACH AND BLUFFS TO GOLDEN GATE BRIDGE PREFERRED ALTERNATIVE F CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Leash restrictions would reduce risk to safety and health of visitors and park staff	Negligible cumulative impacts	Beneficial, assuming compliance

Fort Miley

Alternative A: No Action. Currently, dog walking on leash or under voice control is allowed throughout East and West Fort Miley. Visitor use in this area is considered moderate for picnickers and low for dog walkers. No pet-related violations were issued for at Fort Miley between 2008 and 2016 (tables 38a and 38b).

Impacts on health and safety under alternative A would be negligible. Although there have been no recorded pet incidents, having dogs under voice control at the site would increase the risk of pet-related incidents.

Under alternative A, no permit system exists for dog walking. At Fort Miley, commercial dog walking is uncommon. Therefore, commercial dog walking would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Fort Miley were considered for the cumulative impacts analysis (appendix K). Mainly, the park’s *Fire Management Plan* (NPS 2005b) would create defensible space around buildings that adjoin wildland fuels and would require the park to work closely with the Presidio Fire Department in wildlife planning and management actions. Beneficial impacts on human health and safety would occur from this project.

Under alternative A, the negligible impacts to the health and safety of park staff and visitors from dogs at Fort Miley together with effects of the action mentioned above were considered. The benefits to the health and safety of park staff and visitors from actions included in the park’s *Fire Management Plan* (NPS 2005b) along with the negligible impacts from alternative A would result in negligible cumulative impacts.

FORT MILEY ALTERNATIVE A CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts	Dog walking under voice control would continue to potentially be a risk to the safety and health of visitors and park staff	Negligible cumulative impacts	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Under alternative B, no dog walking would be allowed at the Fort Miley site.

The elimination of dogs from this site would reduce the chances of dog bites or injuries occurring. The chance of visitors or park staff coming into contact with an unruly or aggressive dog would not exist. Additionally, restricting dogs from Fort Miley would eliminate the risk of exposure to pathogens or diseases associated with dog waste. Being able to walk a dog in the park helps maintain a healthy lifestyle and prohibiting dog walking at Fort Miley could adversely impact the health of some visitors as they would no longer be able to exercise at this location. In addition, some visitors would be adversely impacted by the dog restriction because they would not feel safe recreating at the site without the presence of a dog. However, dog walking would be available at other nearby park sites. Overall, impacts to the health and safety of park staff and visitors would be negligible.

Since dogs would not be allowed at Fort Miley, there would be no impact from commercial dog walkers to the health and safety of visitors and staff.

Cumulative Impacts. Projects and actions in and near Fort Miley considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative B of the dog management plan, cumulative impacts to human health and safety would be negligible.

FORT MILEY ALTERNATIVE B CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Dogs would be prohibited	Negligible cumulative impacts	Beneficial, assuming compliance

Alternative C: Emphasis on Multiple Use – Balanced by County. Under alternative C, on-leash dog walking would be allowed in East Fort Miley along the east side of the trail corridor.

Impacts on the health and safety of park visitors and staff would be negligible. Requiring dogs to be walked on leash would make adverse impacts on health and safety unlikely. However, the chance of an individual being injured in a dog-related incident would exist.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Fort Miley is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Fort Miley is not common, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Fort Miley considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative C of the dog management plan, cumulative impacts to human health and safety would be negligible.

FORT MILEY ALTERNATIVE C CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Risk to safety and health of visitors and park staff would be reduced by leash restrictions; no recorded incidents have occurred in recent years	Negligible cumulative impacts	No change, assuming compliance

Alternative D: Most Protective of Resource Protection and Visitor Safety. Alternative D would have the same dog walking restrictions as alternative B and impacts to human health and safety would be the same: negligible. Since dogs would not be allowed at Fort Miley, there would be no impact from commercial dog walkers to the health and safety of visitors and staff.

Cumulative Impacts. Cumulative impacts to human health and safety would be the same as alternative B: negligible.

FORT MILEY ALTERNATIVE D CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Dogs would be prohibited	Negligible cumulative impacts	Beneficial, assuming compliance

Alternative E: Most Dog Walking Access / Most Management Intensive. Under alternative E, on-leash dog walking would be allowed in West Fort Miley only on the road and in East Fort Miley on the trail corridor on the east side of the site.

Impacts on the health and safety of park visitors and staff would be negligible. Requiring dogs to be walked on leash would make adverse impacts on health and safety unlikely. However, the chance of an individual being injured in a dog-related incident would exist.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, Fort Miley is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Fort Miley is not common, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Fort Miley considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative E of the dog management plan, cumulative impacts to human health and safety would be negligible.

FORT MILEY ALTERNATIVE E CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Risk to safety and health of visitors and park staff would be reduced by leash restrictions; no recorded incidents have occurred in recent years	Negligible cumulative impacts	No change, assuming compliance

Alternative F: Preferred Alternative. On-leash dog walking would be allowed only in the trail corridor between Clement Street and the NPS boundary along the east edge of East Fort Miley. No dog walking would be permitted in West Fort Miley.

Impacts on the health and safety of park visitors and staff would be negligible. Requiring dogs to be walked on leash would make adverse impacts on health and safety unlikely. However, the chance of an individual being injured in a dog-related incident would exist.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Fort Miley is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Fort Miley is not common, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Fort Miley were considered for the cumulative impacts analysis (appendix K). Mainly, the park's *Fire Management Plan* would create defensible space around buildings that adjoin wildland fuels and would require the park to work closely with the Presidio Fire Department in wildlife planning and management actions (NPS 2005b, 63). Beneficial impacts on human health and safety would occur from this project.

Under the preferred alternative, the negligible impacts to the health and safety of park staff and visitors from dogs at Fort Miley together with effects of the action mentioned above were considered. The benefits to the health and safety of park staff and visitors from actions included in the park's *Fire Management Plan* (NPS 2005b) along with the negligible impacts from the preferred alternative would result in negligible cumulative impacts.

FORT MILEY PREFERRED ALTERNATIVE F CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Risk to safety and health of visitors and park staff would be reduced by leash restrictions; no recorded incidents have occurred in recent years	Negligible cumulative impacts	No change, assuming compliance

Lands End

Alternative A: No Action. Currently, dogs are allowed on leash or under voice control throughout the Lands End site. Visitor use in the area is considered moderate for hikers and bicyclists and low to moderate for dog walking (table 10). Between 2008 and 2011, a total of 10 pet-related incidents were recorded at this site. Pet-related violations included 5 pet rescues and one leash law violations (table 38a). No pets in closed areas and unattended pet or pet excrement violations were documented at this site between 2008 and 2011. Between 2012 and 2016, a total of 17 pet-related incidents were recorded at this site (table 38b). Violations included six animal complaints, five violations of leash laws, and two dog bites (table 38b).

Under the no-action alternative, impacts on the health and safety of park visitors and staff would continue to be long term, minor to moderate, and adverse. Having dogs under voice control would continue to increase the risk of potential dog-related incidents (bites/attacks, pet rescues). In addition, this is considered a low to moderate use site for dog walkers.

Under alternative A, no permit system exists for dog walking. At Lands End, commercial dog walking is uncommon. Therefore, it is likely that commercial dog walking would have a negligible impact on human health and safety.

Cumulative Impacts. Projects and actions in and near Lands End were considered for the cumulative impacts analysis (appendix K). Park stewardship programs at Lands End includes development of a new promenade and overlook as well as resurfacing and stabilizing segments of the trail, eliminating damaged social trails, replanting native species in the local forest and surrounding areas, and engaging the community in park stewardship (GGNPC 2010c, 1). The park's *Fire Management Plan* would create defensible space around buildings that adjoin wildland fuels and would require the park to work closely with the Presidio Fire Department in wildlife planning and management actions (NPS 2005b, 63). Projects under the park stewardship programs and *Fire Management Plan* (NPS 2005b) would create

beneficial impacts on human health and safety. The impacts resulting from the past oil spill would add little to the cumulative impacts on health and safety since those impacts were found to be negligible.

Under alternative A, the long-term, minor to moderate, adverse impacts to the health and safety of park staff and visitors from dogs at Lands End, together with effects of the projects mentioned above were considered. The benefits to the health and safety of park staff and visitors from the park stewardship programs and the *Fire Management Plan* (NPS 2005b) are expected to reduce some of the adverse impacts of this alternative. The beneficial effects from these projects along with the long-term, minor to moderate, and adverse impacts from alternative A would result in negligible to long-term, minor, and adverse cumulative impacts.

LANDS END ALTERNATIVE A CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor to moderate adverse impacts	Pet rescues and unruly or aggressive dogs encounters could continue to occur, placing visitors and park staff safety at risk; site experiences low to moderate use by dog walkers	Negligible to long-term minor adverse cumulative impacts	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Under alternative B, on-leash dog walking would be available on the El Camino del Mar Trail, the Lands End Coastal Trail, and the connecting trails/steps.

The leash requirement would reduce the incidents at the site (bites/attacks, pet rescues), creating negligible impacts at this park site. However, the chance of visitors and staff encountering an uncontrolled or aggressive dog could still exist, resulting in possible visitor and dog conflicts.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person with no permit required. Since commercial dog walking is not common at Lands End, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Lands End considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative B of the dog management plan, cumulative impacts to human health and safety would be beneficial.

LANDS END ALTERNATIVE B CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Risk to safety and health of visitors and park staff would be reduced by leash restrictions and limitation on number of dogs	Beneficial cumulative impacts	Beneficial, assuming compliance

Alternative C: Emphasis on Multiple Use – Balanced by County. Alternative C would have the same dog walking restrictions as alternative B and impacts to human health and safety would be the same:

negligible. Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Lands End is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking is not common at Lands End, it is likely that the new permit regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Cumulative impacts to human health and safety would be the same as alternative B: beneficial.

LANDS END ALTERNATIVE C CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Risk to safety and health of visitors and park staff would be reduced by leash restrictions and limitation on number of dogs	Beneficial cumulative impacts	Beneficial, assuming compliance

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, on-leash dog walking would be allowed on the El Camino del Mar Trail and on the Lands End Coastal Trail as far as the junction with, and on, the connector trail/steps leading to the El Camino del Mar Trail.

Requiring dogs to be on leash would reduce the potential for dog-related incidents. However, the chance of park visitors and staff encountering uncontrolled aggressive dogs would still exist, creating a risk of dog bites or other physical injuries. Impacts on health and safety would be negligible since dogs would be required to be walked on leash.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D; therefore there would be no impact on human health and safety from commercial dog walking.

Cumulative Impacts. Cumulative impacts to human health and safety would be the same as alternative B: beneficial.

LANDS END ALTERNATIVE D CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Risk to safety and health of visitors and park staff would be reduced by leash restrictions	Beneficial cumulative impacts	Beneficial, assuming compliance

Alternative E: Most Dog Walking Access / Most Management Intensive. Alternative E would have the same dog walking restrictions as alternative B and impacts to human health and safety would be the same: negligible.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Lands End is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking is not common at Lands End, it is likely that the new permit regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Cumulative impacts to human health and safety would be the same as alternative B: beneficial.

LANDS END ALTERNATIVE E CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Risk to safety and health of visitors and park staff would be reduced by leash restrictions	Beneficial cumulative impacts	Beneficial, assuming compliance

Alternative F: Preferred Alternative. The preferred alternative would allow on-leash dog walking on the El Camino del Mar Trail from the park boundary to the Lands End parking lot, the Lands End Coastal Trail, and the connecting trails and steps.

The leash requirement would reduce the incidents at the site (bites/attacks, pet rescues), creating negligible impacts at this park site. However, the chance of visitors and staff encountering an uncontrolled or aggressive dog could still exist, resulting in possible visitor and dog conflicts.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be granted at Lands End, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking activity is not common at Lands End, it is likely that the new regulation would not have an impact on the number of dog walkers. Therefore, commercial dog walking under the preferred alternative would have a negligible impact on health and safety.

Cumulative Impacts. Projects and actions in and near Lands End were considered for the cumulative impacts analysis (appendix K). Park stewardship programs at Lands End include development of a new promenade and overlook as well as resurfacing and stabilizing segments of the trail, eliminating damaged “social” trails, replanting native species in the local forest and surrounding areas, and engaging the community in park stewardship (GGNPC 2010c, 1). The park’s *Fire Management Plan* would create defensible space around buildings that adjoin wildland fuels and would require the park to work closely with the Presidio Fire Department in wildlife planning and management actions (NPS 2005b, 63). Projects under park stewardship programs and *Fire Management Plan* would create beneficial impacts on human health and safety. The impacts resulting from the past oil spill would add little to the cumulative impacts on health and safety since those impacts were found to be negligible.

The negligible impacts on human health and safety under the preferred alternative were considered together with the beneficial effects of the projects mentioned above. Cumulatively, there would be beneficial impacts to the health and safety of staff and visitors at this site under this alternative.

LANDS END PREFERRED ALTERNATIVE F CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Risk to safety and health of visitors and park staff would be reduced by leash restrictions and limitation on number of dogs	Beneficial cumulative impacts	Beneficial, assuming compliance

Sutro Heights Park

Alternative A: No Action. Currently, dog are allowed on leash at Sutro Heights Park. Visitor use at this site is considered moderate and the percentage of visitors walking dogs is moderate (table 10). Visitors in this area are typically in the garden or attending a wedding or other event. Between 2008 and 2011, a total of 71 pet-related incidents were recorded at this site. Pet-related violations included 46 leash law violations and two cases of visitors walking dogs in closed areas (table 38a). No unattended pet, pet excrement or dog bite/attack violations were documented at this site between 2008 and 2011. Between 2012 and 2016, a total of 33 pet-related incidents were recorded. Violations included 20 leash law violations, nine animal complaints, two dog bites, and two dog walkers in closed areas (table 38b). During the public comment period, the public described their experiences with off-leash dogs. One commenter stated, “In the GGNRA I have been rushed at by unleashed, barking dogs on six occasions: in the Sutro Heights Park three times, on the Lands End Trail twice and once in the area below the Veterans Hospital” (NPS 2011a, Correspondence 4464).

Under the no-action alternative, impacts on the health and safety of park visitors and staff would continue to be negligible. The chance of visitors or staff encountering an unruly or aggressive dog would exist, creating a safety issue. In addition, pet rescues would be expected to continue, potentially creating a safety risk for staff.

Under alternative A, no permit system exists for dog walking. At Sutro Heights Park, commercial dog walking is uncommon. Therefore, it is likely that commercial dog walking would have a negligible impact on human health and safety.

Cumulative Impacts. Projects and actions in and near Sutro Heights Park were considered for the cumulative impacts analysis (appendix K). Mainly, the park’s *Fire Management Plan* (NPS 2005b) would create defensible space around buildings that adjoin wildland fuels and would require the park to work closely with the Presidio Fire Department in wildlife planning and management actions. Beneficial impacts on human health and safety would occur from this project.

The negligible impacts to the health and safety of park staff and visitors under alternative A were considered together with effects of the action mentioned above. The beneficial effects from actions included in the park’s *Fire Management Plan* (NPS 2005b) along with the negligible impacts from alternative A would result in negligible impacts to the health and safety of park staff and visitor.

SUTRO HEIGHTS PARK ALTERNATIVE A CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts	Risk to safety and health of visitors and park staff would be low due to low use by dog walkers; visitors and staff may encounter an unruly or aggressive dog	Negligible cumulative impacts	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Under alternative B, on-leash dog walking would be allowed on the paths and parapet.

The chance of visitors or staff encountering unruly or aggressive dogs would exist even with dogs on leash and the reduced dog walking areas. Since this site receives low visitation by dog walkers, impacts on the health and safety of park visitors would be expected to reach only a negligible level.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person with no permit required. Since commercial dog walking is not common at Sutro Heights Park, it is likely that the new regulation would not have an impact on the number of dog walkers. Therefore, commercial dog walking under alternative B would have a negligible impact on health and safety.

Cumulative Impacts. Projects and actions in and near Sutro Heights Park considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative B of the dog management plan, cumulative impacts to human health and safety would be negligible.

SUTRO HEIGHTS PARK ALTERNATIVE B CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Risk to safety and health of visitors and park staff would be low due to low use by dog walkers; visitors and staff may encounter an unruly or aggressive dog	Negligible cumulative impacts	No change, assuming compliance

Alternative C: Emphasis on Multiple Use – Balanced by County. Alternative C would have the same dog walking restrictions as alternative B and impacts to human health and safety would be the same: negligible.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Sutro Heights Park is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking is not common at Sutro Heights Park, it is likely that the new regulation would not have an impact on the number of dog walkers. Therefore, commercial dog walking under alternative C would have a negligible impact on health and safety.

Cumulative Impacts. Cumulative impacts to human health and safety would be the same as alternative B: negligible.

SUTRO HEIGHTS PARK ALTERNATIVE C CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Risk to safety and health of visitors and park staff would be low due to low use by dog walkers; visitors and staff may encounter an unruly or aggressive dog	Negligible cumulative impacts	No change, assuming compliance

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, no dog walking would be allowed in Sutro Heights Park.

The elimination of dogs from this site would reduce the chances of dog bites or injuries occurring. The chance of visitors or park staff coming into contact with an unruly or aggressive dog would not exist. Additionally, restricting dogs from the site would eliminate the risk of exposure to pathogens or diseases associated with dog waste. Being able to walk a dog in the park helps maintain a healthy lifestyle. Restricting dog access from Sutro Heights Park could adversely impact the health of some visitors as they would no longer be able to exercise at this location. In addition, some visitors would be adversely impacted by the dog restriction because they would not feel safe recreating at the site without the presence of a dog. However, dog walking would be available at other nearby park sites. Impacts to the health and safety of park staff and visitors would be negligible.

Since dogs would not be allowed at Sutro Heights Park, there would be no impact from commercial dog walkers to the health and safety of visitors and staff.

Cumulative Impacts. Projects and actions in and near Sutro Heights Park considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative D of the dog management plan, cumulative impacts to human health and safety would be negligible.

SUTRO HEIGHTS PARK ALTERNATIVE D CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Dogs would be prohibited at the site	Negligible cumulative impacts	Beneficial, assuming compliance

Alternative E: Most Dog Walking Access / Most Management Intensive. Under alternative E, on-leash dog walking would be allowed on the paths, parapet, and lawns.

The chance of visitors and staff encountering an unruly or aggressive dog would exist even with dogs on leash. Since this site receives low visitation by dog walkers, impacts on the health and safety of park visitors would be expected to reach only a negligible level.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Sutro Heights Park is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking is not common at Sutro Heights Park, it is likely that the new regulation would not have an impact on the number of dog walkers. Therefore, commercial dog walking under alternative E would have a negligible impact on health and safety.

Cumulative Impacts. Projects and actions in and near Sutro Heights Park considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative E of the dog management plan, cumulative impacts to human health and safety would be negligible.

SUTRO HEIGHTS PARK ALTERNATIVE E CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Risk to safety and health of visitors and park staff would be low due to low dog walking use; visitors and staff may encounter an unruly or aggressive dog	Negligible cumulative impacts	No change, assuming compliance

Alternative F: Preferred Alternative. The preferred alternative includes on-leash dog walking on the paths, parapet, lawns, and parking area at Sutro Heights Park, allowing the most dog walking access among the action alternatives. The chance of visitors and staff encountering an unruly or aggressive dog would exist even with dogs on leash. Since this site receives low visitation by dog walkers, impacts on the health and safety of park visitors would be expected to reach only a negligible level.

Under the preferred alternative, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Sutro Heights Park is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking is not common at Sutro Heights Park, it is likely that the new regulation would not have an impact on the number of dog walkers. Therefore, commercial dog walking under the preferred alternative would have a negligible impact on health and safety.

Cumulative Impacts. Projects and actions in and near Sutro Heights Park were considered for the cumulative impacts analysis (appendix K). Mainly, the park’s *Fire Management Plan* would create defensible space around buildings that adjoin wildland fuels and would require the park to work closely with the Presidio Fire Department in wildlife planning and management actions (NPS 2005b, 63). Beneficial impacts on human health and safety would occur from this project.

The negligible impacts to the health and safety of park staff and visitors under the preferred alternative were considered together with effects of the action mentioned above. The beneficial effects from actions included in the park’s *Fire Management Plan* (NPS 2005b) along with the negligible impacts from the preferred alternative would result in negligible impacts to the health and safety of park staff and visitors.

SUTRO HEIGHTS PARK PREFERRED ALTERNATIVE F CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Risk to safety and health of visitors and park staff would be low due to low dog walking use; visitors and staff may encounter an unruly or aggressive dog	Negligible cumulative impacts	No change, assuming compliance

Ocean Beach

Alternative A: No Action. Currently, dogs are allowed under voice control (with a seasonal leash restriction (July 1 through May 15) in the SPPA, which stretches from Stairwell 21 to Sloat Boulevard. Dog walking under voice control is also allowed north of Stairwell 21 and south of Sloat Boulevard. Visitor use at Ocean Beach is considered moderate to high overall (mostly beachgoers, runners, surfers, and picnickers) and moderate in the SPPA (mostly beachgoers and runners) (table 10). Dog walking is

considered a low to high use activity at Ocean Beach and moderate in the SPPA. Between 2008 and 2011, a total of 969 pet-related incidents were recorded at this site. Pet-related violations included 89 leash law violations, 77 cases of visitors walking dogs in closed areas, 22 hazardous conditions violations (including 21 dog bites/attacks/aggressive behavior), and 2 pet excrement violations (table 38a). Violation of the Ocean Beach SPPA resulted in the most violations (729). No unattended pet violations were documented at this site between 2008 and 2011. Between 2012 and 2016, a total of 156 pet-related violations were recorded. Violations include 73 leash law violations, 33 resource violations, 29 animal complaints, 10 dog walkers in closed areas, and two dog/wildlife interactions (table 38b).

During the public comment period, the public described their observations of dogs walking on the beach. One commenter stated, “Just yesterday while coming out of the water from surfing I witnessed a woman watch her dog defecate in the shallow water and then just walk away. It happens all the time, virtually everyday. This is middle of the beach, where we have snowy plovers and where dogs are SUPPOSED to be on leashes. As someone who uses the middle of Ocean Beach virtually everyday, I can assure that dogs are rarely leashed” (NPS 2011a, Correspondence 1169).

Under the no-action alternative, long-term moderate to major adverse impacts on the health and safety of park visitors and staff would be expected to continue. The number of dog bites/attacks and pet rescues would be expected to continue to be high at this site, resulting in adverse impacts on the health and safety of visitors and staff.

Under alternative A, no permit system exists for dog walking. At Ocean Beach, commercial dog walking is uncommon. Therefore, commercial dog walking would have negligible impact on human health and safety.

Cumulative Impacts. Projects and actions in and near Ocean Beach were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on health and safety at or in the vicinity of Ocean Beach.

A joint project with the park and the City of San Francisco may occur in the future that involves the improvement of the Esplanade at the north end of Ocean Beach. The park’s *Fire Management Plan* would create defensible space around buildings that adjoin wildland fuels and would require the park to work closely with the Presidio Fire Department in wildlife planning and management actions (NPS 2005b, 63). Beneficial impacts on human health and safety would occur from these projects. The impacts resulting from the past oil spill would add little to the cumulative impacts on health and safety since those impacts were found to be negligible.

Under alternative A, the long-term, moderate to major, adverse impacts to the health and safety of park staff and visitors from dogs at Ocean Beach, together with effects of the projects mentioned above were considered. The benefits to the health and safety of park staff and visitors from the site improvements and the park’s *Fire Management Plan* (NPS 2005b) are not expected to reduce the adverse impact of this alternative; therefore the cumulative analysis for this park site will focus on the results of the impact analysis for this alternative. The beneficial effects from the site improvements and the park’s *Fire Management Plan* (NPS 2005b) along with the long-term moderate to major adverse impacts from alternative A would result in long-term, moderate, adverse cumulative impacts.

OCEAN BEACH ALTERNATIVE A CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term moderate to major adverse impacts	Site experiences high use; a large number of violations, including dog bites/attacks and pet rescues have been recorded	Long-term moderate adverse cumulative impacts	N/A

Alternative B: NPS Leash Regulation. Under alternative B, on-leash dog walking would be allowed on the Ocean Beach Trail, parallel to the SPPA, east of the dunes and adjacent to the Great Highway. On-leash dog walking would also be allowed north of Stairwell 21 and south of Sloat Boulevard. During the public comment period, the public described their preference for on-leash dog walking at this site, based upon personal experiences. One commenter stated, “I urge you to require all dogs on Ocean Beach be kept on leash at all times. Voice control has proven not to be effective. I have run and walked on Ocean Beach for over 40 years. In recent years there have been an increased number of unleashed dogs on the beach. I have been bitten by an unleashed dog while running on Ocean Beach. When running with friends who have a dog on leash, their dogs have been attacked by unleashed dogs. Each of these behaviors is natural of dogs. By their very nature and breeding, they attack running prey, in this case me. A leashed dog appears to be in a weakened position and is fair game for an unrestrained dog. Often the owners of unleashed dogs are hostile when I ask them to control their dog. When I ask them to restrain their dog, they are often openly hostile. I have been called crazy, cursed at, and given the “finger.” I should not have to take a subservient position to dogs. They should all be required to be on leash, not just voice control, while on Ocean Beach” (NPS 2011a, Correspondence 2087).

Requiring on-leash dog walking would reduce impacts on the health and safety of park visitors and staff; however, the chance of individuals encountering unruly or aggressive dogs would still exist and there would still be the risk of dog bites or other physical injuries occurring. In addition, this is a low to high use site for dog walkers. Impacts on health and safety would be long term, minor, and adverse. Impacts on the health and safety of park staff during the initial education and enforcement phase at these sites would result from the potential for visitors knowledgeable of the former regulations confronting and possibly challenging park staff. Compliance has been a challenge at this site in the past and there has been a history of confrontations between visitors and park staff. With education and enforcement expected to result in compliance with the new regulations, impacts on the health and safety of park staff would be short term, moderate, and adverse. However, requiring dogs to be on leash would result in minimizing the risks park staff members take when responding to occasional dog/human rescues. Impacts on staff from participating in rescues would still exist if a rescue is needed but would not be expected to occur above normal park operations expected risks.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person with no permit required. Since commercial dog walking is not common at Ocean Beach, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Ocean Beach considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor adverse impacts associated with alternative B of the dog management plan, cumulative impacts to human health and safety would be long-term, minor, and adverse.

OCEAN BEACH ALTERNATIVE B CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Short-term moderate adverse impacts on park staff during initial education and enforcement period	Site has history of confrontations and violations of regulations	Long-term, minor, adverse cumulative impacts	Beneficial, assuming compliance
Long-term minor adverse impacts, assuming compliance	Continued opportunity would exist for visitors and park staff to encounter unruly or aggressive dogs, placing their health and safety at risk		

Alternative C: Emphasis on Multiple Use – Balanced by County. Under alternative C, on-leash dog walking would be allowed on the Ocean Beach Trail parallel to the SPPA, east of the dunes and adjacent to the Great Highway. A VSCA would be established on the beach north of Stairwell 21. No dog walking would be allowed on the beach south of Sloat Boulevard.

During the public comment period, the public described their use of the SPPA for dog walking. One commenter stated, “As a woman who often walks alone with her dog, I find Ocean Beach invaluable. To me, it is a singular location in the city of San Francisco not only due to its beauty, but because the 3.5 mile round trip between Sloat and Judah is flat, free of traffic, and where, with my dog, I feel safe to walk alone. Losing the ability to walk on Ocean Beach with my dog would be an immeasurable loss to me. Without my dog, I would not feel free to walk Ocean Beach. Not only does my own dog make me feel safer, but other people walking dogs makes me feel safer. The stretch of Ocean Beach between Sloat and Judah is little used, and without the people with dogs, there would hardly be anyone left. I would feel too removed from civilization to feel safe walking alone. Many who use this part of Ocean Beach are dog owners, and I've noticed that many are women walking alone with their dogs, like me” (NPS 2011a, Correspondence 4585).

Impacts on the health and safety of park visitors and staff would be long term, minor to moderate, and adverse. The risk of dog bites or other physical injuries would be elevated since dogs would be under voice and sight control in a VSCA. This is an area that provides a variety of visitor experiences and the site has a history of violations. Some visitors would be adversely impacted by the dog restriction on the beach south of Sloat Boulevard because they would not feel safe recreating at the site without the presence of a dog. However, a VSCA would still be available on the beach north of Stairwell 21. In addition, dog-to-dog interaction could result in people trying to separate dogs, which could increase the chances of injuries occurring. Impacts on the health and safety of park staff during the initial education and enforcement phase at these sites could result from visitors confronting and possibly challenging park staff due to their knowledge of the former regulations. Compliance has been a challenge at this site in the past and there has been a history of confrontations between visitors and park staff. With education and enforcement expected to result in compliance with the new regulations, impacts on park staff would be short term, moderate, and adverse. Staff would still be at risk of injury from participating in rescues but the risk would not be above that expected during regular park operations if a rescue is needed.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Ocean Beach is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Ocean Beach is not common, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Ocean Beach considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor to moderate adverse impacts associated with alternative C of the dog management plan, cumulative impacts to human health and safety would be long-term, minor to moderate, and adverse.

OCEAN BEACH ALTERNATIVE C CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Short-term moderate adverse impacts on park staff during initial education and enforcement period	Site has history of confrontations and violations of regulations	Long-term, minor to moderate adverse cumulative impacts	Beneficial change, assuming compliance
Long-term minor to moderate adverse impacts, assuming compliance	Chance of encounters with unruly or aggressive dogs would continue to place visitors and park staff at risk; site is moderate to high use and provides a variety of visitor experiences		

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, on-leash dog walking would be allowed on the Ocean Beach Trail parallel to the SPPA, east of the dunes and adjacent to the Great Highway. On-leash dog walking would also be allowed north of Stairwell 21, and no dogs would be allowed south of Sloat Boulevard.

Requiring on-leash dog walking would reduce impacts on the health and safety of park visitors and staff; however, the chance of individuals encountering unruly or aggressive dogs would still exist and there would still be the risk of dog bites or other physical injuries occurring. In addition, this is a low to high use site for dog walkers. Impacts on health and safety would be long term, minor, and adverse. Impacts on the health and safety of park staff during the initial education and enforcement phase at these sites would result from the potential for visitors knowledgeable of the former regulations confronting and possibly challenging park staff. Compliance has been a challenge at this site in the past and there has been a history of confrontations between visitors and park staff. With education and enforcement expected to result in compliance with the new regulations, impacts on the health and safety of park staff would be short term, moderate, and adverse. However, requiring dogs to be on leash would result in minimizing the risks park staff take when responding to occasional dog/human rescues. Risk of injury to park staff from participating in rescues would still exist; however, the risk would not be above that expected during regular park operations if a rescue is needed.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D; therefore there would be no impact on human health and safety from commercial dog walking.

Cumulative Impacts. Projects and actions in and near Ocean Beach considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor adverse impacts associated with alternative D of the dog management plan, cumulative impacts to human health and safety would be long-term, minor, and adverse.

OCEAN BEACH ALTERNATIVE D CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Short-term moderate adverse impacts on park staff during initial education and enforcement period	Site has history of confrontations and violations of regulations	Long-term, minor, adverse cumulative impacts	Beneficial, assuming compliance
Long-term minor adverse impacts, assuming compliance	Opportunity would continue for visitors and park staff to encounter unruly or aggressive dogs, placing their health and safety at risk		

Alternative E: Most Dog Walking Access / Most Management Intensive. Under alternative E, on-leash dog walking would be allowed on the beach in the SPPA, on the beach south of Sloat Boulevard, and on the Ocean Beach Trail adjacent to the Great Highway in the SPPA. A VSCA would be established on the beach north of Stairwell 21.

Long-term minor to moderate adverse impacts on the health and safety of park visitors and staff would be anticipated. The chance of visitors and staff encountering uncontrolled aggressive or unruly dogs would exist, especially in the VSCA. Having dogs under voice and sight control would increase the risk of dog bites and other dog-related injuries occurring. In the past few years, dog-related incidents have been recorded at this site. An additional risk from dog-to-dog interaction could result from people trying to separate dogs, which could increase the chances of injuries occurring. Based on the history of confrontations between visitors and staff, it is likely that some visitors may challenge the new dog management regulations in this area. Therefore, impacts on park staff during the initial education and enforcement period would be short term, moderate, and adverse. Requiring dogs to be on leash would result in minimizing the risks park staff take when responding to occasional dog/human rescues. Impacts on staff from participating in rescues would still exist; however, the risk would not be expected to be greater than the regular level of risk to park operations if a rescue is needed.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Ocean Beach is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Ocean Beach is not common, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Ocean Beach considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor to moderate adverse impacts associated with alternative E of the dog management plan, cumulative impacts to human health and safety would be long-term, minor to moderate, and adverse.

OCEAN BEACH ALTERNATIVE E CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Short-term moderate adverse impacts on park staff during initial education and enforcement period	Site has history of confrontations and violations of regulations	Long-term, minor to moderate cumulative impacts	Beneficial change, assuming compliance
Long-term minor to moderate adverse impacts, assuming compliance	Chance of encounters with unruly or aggressive dogs would continue to place visitors and park staff at risk; site is high use, and provides a variety of visitor experiences		

Alternative F: Preferred Alternative. Dog walking under voice and sight control for dog walkers with up to three dogs would be allowed in a VSCA from Stairwell 21 to the northern end of the beach, which includes the adjacent waters immediately offshore. Stairwells 1 to 21 leading to the VSCA would require dogs to be leashed until well on to the beach itself. On-leash dog walking would also be allowed on the Ocean Beach Trail along the Great Highway from the Cliff House to Lincoln Boulevard, to Sloat Boulevard on the single track path through the ice plants on the western curb along the Great Highway, and on the future planned trail south of Sloat Boulevard. Dogs would be prohibited on the beach within the SPPA, between Stairwell 21 and Sloat Boulevard.

Impacts on the health and safety of park visitors and staff would be long term, minor to moderate, and adverse. The risk of dog bites or other physical injuries would be elevated since dogs would be under voice and sight control in a VSCA. This is a high use area that provides a variety of visitor experiences, and the site has a history of violations. In addition, dog-to-dog interaction could result in people trying to separate dogs, which would increase the chances of injuries occurring. Impacts on the health and safety of park staff during the initial education and enforcement phase at these sites could result from visitors confronting and possibly challenging park staff due to their knowledge of the former regulations. Compliance has been a challenge at this site in the past and there has been a history of confrontations between visitors and park staff. With education and enforcement expected to result in compliance with the new regulations, impacts on park staff would be short term, moderate, and adverse. Impacts on staff from participating in rescues would still exist; however, the risk would not be expected to be greater than the regular level of risk to park operations if a rescue is needed.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Ocean Beach is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Ocean Beach is not common, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Ocean Beach were considered for the cumulative impacts analysis (appendix K). The following is a discussion of projects that have had, are currently having, or will have effects on health and safety at or in the vicinity of Ocean Beach.

A joint project with the park and the City of San Francisco may occur in the future that involves the improvement of the Esplanade at the north end of Ocean Beach. The park's *Fire Management Plan* would create defensible space around buildings that adjoin wildland fuels and would require the park to work closely with the Presidio Fire Department in wildlife planning and management actions (NPS 2005b, 63).

Beneficial impacts on human health and safety would occur from these projects. The impacts resulting from the past oil spill would add little to the cumulative impacts on health and safety since those impacts were found to be negligible.

Under the preferred alternative, the long-term, minor to moderate, adverse impacts to the health and safety of park staff and visitors from dogs at Ocean Beach, together with effects of the projects mentioned above were considered. The benefits to the health and safety of park staff and visitors from the site improvements and actions included in the park's *Fire Management Plan* (NPS 2005b) are not expected to reduce the adverse impact of this alternative; therefore the cumulative analysis for this park site will focus on the results of the impact analysis for this alternative. The beneficial effects from the site improvements and actions included in the park's *Fire Management Plan* (NPS 2005b) along with the long-term, minor, and adverse impacts from the preferred alternative would result in long-term, minor to moderate, adverse cumulative impacts.

OCEAN BEACH PREFERRED ALTERNATIVE F CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Short-term moderate adverse impacts on park staff during initial education and enforcement period	Site has history of confrontations and violations of regulations	Long-term, minor to moderate adverse cumulative impacts	Beneficial change, assuming compliance
Long-term minor to moderate adverse impacts, assuming compliance	Chance of encounters with unruly or aggressive dogs would continue to place visitors and park staff at risk; site is moderate to high use, provides a variety of visitor experiences		

Fort Funston

Alternative A: No Action. Currently, dog walking under voice control is allowed throughout Fort Funston except for the 12-acre fenced Habitat Protection Area, which is closed to visitors and dogs for the protection of resources and visitor safety, a voluntary seasonal closure on the beach at the foot of the northernmost bluffs to protect nesting bank swallows, and the north end of the Sunset Trail due to erosion. At Fort Funston, visitor use by dog walkers, including commercial dog walkers, is considered high (table 10). Other visitors to this site include horseback riders, surfers, hang gliders, bird-watchers, whale watchers, and environmental center participants. During the public comment period, the public described their observations of encounters between off-leash dogs and horses on the beach. One commenter stated, "My horse and I have been attacked by off leash dogs numerous times down on the beach below Fort Funston. One of the incidents, left my horse with numerous bites from an unleashed pit-bull, and a dog with a broken jaw - not the ending any animal owner wants. There have been other incidents such as these involving other equestrians, too many to count anymore" (NPS 2011a, Correspondence 2179). Between 2008 and 2011, a total of 172 pet-related incidents were recorded at this site. Pet-related violations included 72 hazardous conditions (including 32 dog bites/attacks/aggressive behavior and 27 pet rescues), 69 leash law violations, and one case of visitors walking dogs in closed areas (table 38a). No unattended pet or pet excrement violations were documented at this site between 2008 and 2011. Between 2012 and 2016, a total of 157 pet-related violations were recorded at this site. Violations included 77 animal complaints, 33 dog walkers in closed areas, 25 dog bites, and 20 leash law violations (table 38b).

During the public comment period, another commenter remarked on dogs in areas of voice control at Fort Funston: “I have two dogs and have had several negative experiences while walking my dogs on GGNRA lands. One time, at Fort Funston, one of my dogs was chased in a very aggressive manner by a pit bull and eventually was bitten by this same animal. All this occurred while the owner of the other dog watched from afar as I tried to break them up. The bite drew blood but otherwise didn't hurt my dog badly. This is one example among many of where there was inadequate control by dog owners over their pets. One other time worth mentioning happened when I took my son to Fort Funston when he was 4 years old. A commercial dog walker was unable to control an animal that lunged at my son to get the stuffed toy in my son's hand. The large dog slammed into my son and caused him to hit his head on the course asphalt pavement. I called the park police and reported this incident at the time. My son has suffered permanent disfigurement to the forehead from this fall” (NPS 2011a, Correspondence 3632).

Under alternative A, impacts on the health and safety of park visitors and staff would continue to be long term, moderate to major, and adverse. Conflicts between the variety of visitor experiences sought after in this area would remain high. The high number of dog bites/attacks and risk from rescues would also continue. Horseback riders and/or their horses could be injured if horses react to aggressive dogs by bucking or running.

Under alternative A, no permit system exists for dog walking. However, at Fort Funston, commercial dog walking is common. Since commercial dog walking is considered a high use activity at Fort Funston, it would have long-term moderate adverse impacts on human health and safety, based on the history of dog-related incidents occurring at this site.

Cumulative Impacts. Projects and actions in and near Fort Funston were considered for the cumulative impacts analysis (appendix K). The NPS is planning to construct a new FRA-accessible restroom and maintenance facilities at Fort Funston (NPS 2010d, 1). The park's *Fire Management Plan* would create defensible space around buildings that adjoin wildland fuels and would require the park to work closely with the Presidio Fire Department in wildlife planning and management actions (NPS 2005b, 63). Beneficial impacts on human health and safety would occur from these projects. The impacts resulting from the past oil spill would add little to the cumulative impacts on health and safety since those impacts were found to be negligible.

Under alternative A, the long-term moderate to major adverse impacts to the health and safety of park staff and visitors from dogs at Fort Funston, together with effects of the projects mentioned above were considered. The benefits to the health and safety of park staff and visitors from the site improvements and actions included in the park's *Fire Management Plan* (NPS 2005b) are not expected to reduce the adverse impact of this alternative; therefore the cumulative analysis for this park site will focus on the results of the impact analysis for this alternative. The beneficial effects from the site improvements and actions included in the park's *Fire Management Plan* (NPS 2005b) along with the long-term, moderate to major, and adverse impacts from alternative A would result in long-term moderate to major adverse cumulative impacts.

FORT FUNSTON ALTERNATIVE A CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term moderate to major adverse impacts	High use by a variety of user groups would continue; site experiences high use by dog walkers, including commercial dog walkers; site experiences high number of dog-related incidents and conflicts	Long-term moderate to major adverse cumulative impacts	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Under alternative B, on-leash dog walking would be allowed on the beach and on all trails north and south of the main parking lot not closed to dogs through the GGNRA Compendium. A seasonal closure to all visitors (April 1 – August 15) currently exists at the foot of the northernmost coastal bluffs when bank swallows are nesting.

Requiring dogs to be on leash would reduce the impact on the health and safety of park visitors and staff. Impacts on health and safety would be expected to be long term, minor, and adverse, since the chance of visitors coming into contact with an unruly or aggressive dog would exist, resulting in a risk of dog bites or other injury. Impacts on the health and safety of park staff during the initial education and enforcement phase at this site may result from visitors knowledgeable of the former regulations confronting and possibly challenging park staff. Compliance has been a challenge at this site in the past and there has been a history of confrontations between visitors and park staff. With education and enforcement expected to result in compliance with the new regulations, initial impacts on park staff would be short term, moderate, and adverse. In addition, requiring dogs to be on leash would result in minimizing the risks park staff take when responding to occasional dog/human rescues that have occurred in the past on the cliffs at Fort Funston. Impacts on staff from participating in rescues under this alternative would be expected to be short term, minor, and adverse after the implementation of this alternative, as the risk of injury would still exist if a rescue is needed.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person with no permit required. Since commercial dog walking is common at Fort Funston, the new regulation would have beneficial impacts on human health and safety. The number of dogs per person would be limited, which should result in a reduced number of dog-related injuries. Commercial dog walkers would have fewer dogs and would have more control of their dogs.

Cumulative Impacts. Projects and actions in and near Fort Funston considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor adverse impacts associated with alternative B of the dog management plan, cumulative impacts to human health and safety would be long term, minor, and adverse.

FORT FUNSTON ALTERNATIVE B CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Short-term minor to moderate adverse impacts on park staff during initial education and enforcement period	Site has history of confrontations and violations of regulations; continued rescues would be expected	Long-term, minor, adverse cumulative impacts	Beneficial, assuming compliance
Long-term minor adverse impacts, assuming compliance	Opportunity would continue for visitors and park staff to encounter unruly or aggressive dogs, placing health and safety at risk		

Alternative C: Emphasis on Multiple Use – Balanced by County. Under alternative C, on-leash dog walking would be allowed south of the main parking lot on the Funston Beach Trail South (sand ladder), the Sunset Trail, and all trails north of the main parking lot except the Sunset Trail from the parking lot to the junction with the Chip Trail, and the Funston Horse Trail. Two VSCAs would be established: one on the beach south of the Funston Beach Trail North, and a second north of the main parking lot between the Chip Trail, Sunset Trail and the parking lot. No dogs would be allowed on the beach north of the Funston Beach Trail North.

During the public comment period, the public described their observations of the effects of dogs at Fort Funston. One commenter stated, “I ride horses out at Fort Funston and access the trails, beach and Fort Funston three times a week. I grew up in San Francisco and walked our family dogs at Fort Funston in the 80s and 90s. The change in the habitat there is depressing. Seeing dogs harass the dwindling bird life is very sad; watching people not pick up after their dog is enough to make me go nuts. The lack of cooperation and understanding of shared open space has been a source of great frustration for me. Over the last ten years, I have witnessed three accidents involving dogs and horses. One involved the rider being hospitalized. One involved the death of the dog” (NPS 2011a, Correspondence 1466).

Long-term minor to moderate adverse impacts on health and safety would occur due to the potential for dog-related incidents and injuries involving unruly or aggressive dogs. This would mainly be anticipated to occur in the VSCAs, since dog walkers would have less control over off-leash dogs. Visitors and staff may come into contact with unruly or aggressive dogs. Impacts would be minor to moderate since this is a high use site for dog walkers and there is a history of confrontations and dog bites/attacks at the site. An additional risk from dog-to-dog interaction could result from people trying to separate dogs, which could increase the chances of injuries occurring. Impacts on the health and safety of park staff during the initial education and enforcement phase at this site could result from visitors knowledgeable of the former regulations confronting and possibly challenging the park staff. Compliance has been a challenge at this site in the past and there has been a history of confrontations between visitors and park staff. With education and enforcement expected to result in compliance with the new regulations, initial impacts on park staff would be short term, moderate, and adverse. Impacts on staff from participating in rescues would be expected to be short term, minor, and adverse after the implementation of this alternative, as the risk of injury would still exist if a rescue is needed.

During the public comment period, commenters expressed concerns of unsafe access to the site by the elderly and disabled. One commenter stated, “The suggested plan for Funston would not be accessible to disabled people on wheelchairs and canes and for families who bring their kids in strollers. In order to get to the trail where dogs will be only allowed on leash, everyone would have to go through the sandy area or the Chip Trail because the Funston suggested alternative map that was presented at the meeting shows

that the paved area that leads to the rest of the trail (Sunset Trail) is off limits to ALL dogs, whether on or off leash. How is someone with a cane or wheelchair who is there with a dog supposed to get to the trail where dogs are allowed on leash? How are people in wheelchairs going to be able to utilize the proposed off leash sandy area when they can't even maneuver in it? Beach access for off leash dog walking will be extremely difficult for those with canes and inaccessible all together to those who are wheelchair bound. The only access to the beach is down the flight of stairs near the parking lot and down the VERY STEEP sandy beach access trail. That is not practical or safe to anyone who is disabled. So in reality, someone wheelchair bound with a dog really has NO place in Funston to be with an off leash dog. GGNRA should do a review of their plans for Funston to consider disabled people” (NPS 2011a, Correspondence 1076).

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. Permits would be allowed at Fort Funston. Any dog walker, commercial or private, can obtain a permit to walk more than three dogs with a limit of six dogs on leash. In a VSCA, permit holders may have up to six dogs off-leash and the permit may restrict use by time and area. Adverse impacts to health and safety from permit holders are expected to increase under this alternative due to the increase to six dogs off-leash. Since commercial dog walking is high at this site impacts to health and safety would be long-term, moderate, and adverse.

Cumulative Impacts. Projects and actions in and near Fort Funston considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor to moderate adverse impacts associated with alternative C of the dog management plan, cumulative impacts to human health and safety would be long-term, minor to moderate, and adverse.

FORT FUNSTON ALTERNATIVE C CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Short-term minor to moderate adverse impacts on park staff during initial education and enforcement period	Site has history of confrontations and violations of regulations; site is high use area for dog walkers	Long-term minor to moderate adverse cumulative impacts	Beneficial to no change, assuming compliance
Long-term minor to moderate adverse impacts, assuming compliance	Opportunity would continue for visitors and park staff to encounter unruly or aggressive dogs, placing their health and safety at risk; site is high use area for dog walkers		

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, on-leash dog walking would be allowed on the beach south of the Funston Beach Trail North and on the Funston Beach Trail South (sand ladder), the Sunset Trail, and all trails north of the main parking lot except the Funston Horse Trail and the northern end of the Sunset Trail, which is closed due to erosion. A VSCA would be established north of the main parking lot in the disturbed area adjacent to the Sunset Trail and across the Sunset Trail from the Funston Beach Trail North.

Limiting the amount of area for dog walking under voice and sight control in a VSCA would minimize the impacts on health and safety; however, impacts would be anticipated to be long term, minor to moderate, and adverse. Having dogs under voice and sight control in smaller area could result in an increased risk of dog bites and other physical injuries due to the concentration of dogs in this area. Visitors and staff may encounter unruly or aggressive dogs. An additional risk from dog-to-dog interaction could result from people trying to separate dogs, which would increase the chances of injuries

occurring. Impacts on the health and safety of park staff during the initial education and enforcement phase at this site could result from visitors knowledgeable of the former regulations confronting and possibly challenging park staff on the new regulations. Compliance has been a challenge at this site in the past and there has been a history of confrontations between visitors and park staff. With education and enforcement expected to result in compliance with the new regulations, initial impacts on park staff would be short term, moderate, and adverse. In addition, requiring dogs to be on leash near the cliffs would result in minimizing the risks park staff take when responding to occasional dog/human rescues that have occurred in the past on the cliffs at Fort Funston. Impacts on staff from participating in rescues would be expected to be short term, minor, and adverse after the implementation of this alternative, as the risk of injury would still exist if a rescue is needed.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D; therefore there would be no impact on human health and safety from commercial dog walking.

Cumulative Impacts. Projects and actions in and near Fort Funston considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor to moderate adverse impacts associated with alternative D of the dog management plan, cumulative impacts to human health and safety would be long-term, minor to moderate, and adverse.

FORT FUNSTON ALTERNATIVE D CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Short-term minor to moderate adverse impacts on park staff during initial education and enforcement period	Site has history of confrontations and violations of regulations; site is high use area for dog walkers	Long-term minor to moderate adverse cumulative impacts	Beneficial to no change, assuming compliance
Long-term minor to moderate adverse impacts, assuming compliance	Opportunity would continue for visitors and park staff to encounter unruly or aggressive dogs, placing their health and safety at risk		

Alternative E: Most Dog Walking Access / Most Management Intensive. Under alternative E, two VSCAs would be established: one on the beach south of the Funston Beach Trail North, and a second north of the main parking lot. The upland VSCA would be a corridor extending from just north of the new trail to be built along the northern edge of the parking lot, and including the Funston Beach Trail North. The VSCA corridor includes the Chip Trail and sections of the Sunset Trail, Funston Road, and Battery Davis Trail, all north of the parking lot. The VSCA also extends into the disturbed area across the Sunset Trail from the Funston Beach Trail North. The Chip Trail would be hardened to improve accessibility. The VSCA will be separated by barriers from trail along the parking lot and no dog trails/areas. On-leash dog walking would be allowed on the beach north of Funston Beach Trail North, with seasonal closure for all visitors at the foot of northernmost bluffs when bank swallows are nesting (April 1 – August 15), south of the main parking lot on the Funston Beach Trail South (sand ladder) and Sunset Trail, and on all trails outside of the VSCA north of the parking lot except for the Funston Horse Trail, and the northern end of the Sunset Trail which is closed due to erosion.

Elderly and mobility impaired visitors find it difficult to walk their dogs on-leash; therefore the availability of off-leash dog areas is important. In addition, some visitors find it difficult to walk in the sand, so off-leash dog walking areas with compacted surfaces is also important to this user group. During the public comment period, those advocating for the elderly and disabled described their opinions of

VSCAs. One commenter stated, “As a senior with a young dog, having VSCA beach access is a safety issue. Make both beach access trails open to off-leash. STUDIES SHOW that the less exercise a dog gets, the fiercer he or she becomes. So let us exercise our dogs properly” (NPS 2011a, Correspondence 1926). Another commenter stated, “Elderly and disabled people will have great difficulty reaching the beach section to allow their dogs to run off-leash. The most important area for them is the top section where the dogs can run around freely. It is a discrimination against them to force them to walk all the way to the beach area to go off-leash” (NPS 2011a, Correspondence 1543).

Impacts on human health and safety would be expected to be long term, minor to moderate, and adverse, due to the presence of dogs under voice and sight control in the VSCAs and based on the history of confrontations and dog bites at the site. The chance of visitors and staff encountering an unruly or aggressive dog, placing visitors and staff at risk for injuries and dog bites, may exist under this alternative. An additional risk from dog-to-dog interaction could result from people trying to separate dogs, which would increase the chances of injuries occurring. Impacts on the health and safety of park staff during the initial education and enforcement phase at this site could result due to visitors knowledgeable of the former regulations confronting and possibly challenging the park staff on the new regulation. Compliance has been a challenge at this site in the past and there has been a history of confrontations between visitors and park staff. With education and enforcement expected to result in compliance with the new regulations, initial impacts on park staff would be short term, moderate, and adverse. Impacts on staff from participating in rescues would be expected to be short term, minor, and adverse after the implementation of this alternative, as the risk of injury would still exist if a rescue is needed.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. Any dog walker, commercial or private, can obtain a permit to walk more than three dogs with a limit of six dogs on leash. In a VSCA, permit holders may have up to six dogs off-leash and the permit may restrict use by time and area. Permits would be allowed at Fort Funston. Adverse impacts to health and safety from permit holders are expected to increase under this alternative due to the increase to six dogs off-leash. Since commercial dog walking is high at this site impacts to health and safety would be long-term, moderate, and adverse.

Cumulative Impacts. Projects and actions in and near Fort Funston considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the long-term minor to moderate adverse impacts associated with alternative E of the dog management plan, cumulative impacts to human health and safety would be long-term, minor to moderate, and adverse.

FORT FUNSTON ALTERNATIVE E CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Short-term minor to moderate adverse impacts on park staff during education and enforcement period	Site has history of confrontations and violations of regulations	Long-term minor to moderate cumulative impacts	Beneficial to no change, assuming compliance
Long-term minor to moderate adverse impacts, assuming compliance	Opportunity would continue for visitors and park staff to encounter unruly or aggressive dogs, placing their health and safety at risk; site is high use area for dog walkers		

Alternative F: Preferred Alternative.

Dog walking under voice and sight control would be allowed in two designated VSCAs, one on the beach south of the Funston Beach Trail North and a second north from the main parking lot. The second Upper Fort Funston VSCA would extend from just north of the new trail to be built along the northern edge of the parking lot that extends to, and includes the Funston Beach Trail North. The Upper Funston VSCA includes the Funston Trail, and the upland area northeast of the Funston Trail, the Funston Beach Trail (north), the upland area east of (but not including) the Sunset Trail and north of the main parking lot, encompassing the Chip Trail and its eastern embankment, to the intersection at the water fountain with, and including the Battery Davis Trail (west). The Chip Trail between the accessible trail along the northern boundary of the main parking lot and the on-leash Sunset Trail would be hardened and elevated above the sand to improve accessibility. The VSCA would be separated by barriers from the parking lot and no-dog trails/areas. A second water fountain and landscape designs would be used to delineate on- and off-leash dog walking areas. On-leash dog walking would be allowed on trails north of the parking lot (the Funston Horse Trail would be closed to dogs,), Funston Beach Trail South (sand ladder), and Sunset Trail south of the main parking lot. Additional closed areas include a 12-acre habitat protection area that restricts both visitors and dogs for the protection of native plant communities, the bluff area that has a seasonal closure (April 1 – August 15) for the protection of the bank swallow colony, and the northern end of the Sunset Trail, which is closed due to erosion.

Long-term minor to moderate adverse impacts on health and safety would occur due to the potential for dog-related incidents and injuries to occur from unruly or aggressive dogs. This is mainly anticipated to occur in the VSCAs, since dog walkers would have less control over off-leash dogs. Visitors and staff may come into contact with unruly or aggressive dogs. Impacts would be minor to moderate since this is a high use site for dog walkers and there is a history of confrontations and dog bites/attacks at the site. However, landscape designs would be used to increase safety by delineating the areas for on-leash, off-leash, and no dog areas. An additional risk from dog-to-dog interaction could result from people trying to separate dogs, which would increase the chances of injuries occurring. Impacts on the health and safety of park staff during the initial education and enforcement phase at this site could result from visitors knowledgeable of the former regulations confronting and possibly challenging the park staff. Compliance has been a challenge at this site in the past and there has been a history of confrontations between visitors and park staff. With education and enforcement expected to result in compliance with the new regulations, initial impacts on park staff would be short term, moderate, and adverse. Impacts on staff from participating in rescues would be expected to be short term, minor, and adverse after the implementation of this alternative, as the risk of injury would still exist if a rescue is needed.

All dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. Any dog walker, commercial or private, can obtain a permit to walk more than three dogs with a limit of six dogs on leash. In a VSCA, permit holders may have up to six dogs off-leash and the permit may restrict use by time and area. Permits would be allowed at Fort Funston. Adverse impacts to health and safety from permit holders are expected to increase under this alternative due to the increase to six dogs off-leash. Since commercial dog walking is high at this site impacts to health and safety would be long-term, moderate, and adverse.

Cumulative Impacts. Projects and actions in and near Fort Funston were considered for the cumulative impacts analysis (appendix K). The NPS is planning to construct a new FRA-accessible restroom and maintenance facilities at Fort Funston (NPS 2010d, 1). The park's *Fire Management Plan* would create defensible space around buildings that adjoin wildland fuels and would require the park to work closely with the Presidio Fire Department in wildlife planning and management actions (NPS 2005b, 63). Beneficial impacts on human health and safety would occur from these projects. The impacts resulting

from the past oil spill would add little to the cumulative impacts on health and safety since those impacts were found to be negligible.

Under the preferred alternative, the long-term, minor to moderate, adverse impacts to the health and safety of park staff and visitors from dogs at Fort Funston, together with effects of the projects mentioned above under alternative A were considered. The benefits to the health and safety of park staff and visitors from the site improvements and the park's *Fire Management Plan* (NPS 2005b) are not expected to reduce the adverse impact of this alternative; therefore the cumulative analysis for this park site will focus on the results of the impact analysis for this alternative. The beneficial effects from the site improvements and the park's *Fire Management Plan* (NPS 2005b) along with the long-term, minor to moderate, and adverse impacts from the preferred alternative would result in long-term, minor to moderate, adverse cumulative impacts.

FORT FUNSTON PREFERRED ALTERNATIVE F CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Short-term minor to moderate adverse impacts on park staff during initial education and enforcement period	Site has history of confrontations and violations of regulations; site is high use area for dog walkers	Long-term minor to moderate adverse cumulative impacts	Beneficial to no change, assuming compliance
Long-term minor to moderate adverse impacts, assuming compliance	Opportunity would continue for visitors and park staff to encounter unruly or aggressive dogs, placing their health and safety at risk; site is high use area for dog walkers		

SAN MATEO COUNTY SITES

Table 39a shows the number and type of dog incidents recorded from 2008 through 2011 at each of the GGNRA sites in San Mateo County. The data below was taken from law enforcement reports. Dog-related incidents include violations of the leash law, hazardous conditions (includes a dog bite, dog attack, or dog rescue), failure to pick up pet excrement, possessing a pet in a closed area, and violation of a closed area. Table 39b shows the number and type of dog incidents recorded from 2012 through 2016 at each of the GGNRA sites in San Mateo County. Dog-related incidents for these years included animal complaints, dog bites, dog walkers in closed areas, violation of leash laws, dog/wildlife interactions, and resource violations. There are many more dog-related violations at the park, as suggested by calls and complaints from the public, but the violations are not recorded because they are not observed by the law enforcement staff or are not reported by the public. Also, the limited law enforcement staff and the distance between each park site affects the frequency of patrols. Law enforcement is responsible for covering approximately 80 miles of non-contiguous park sites. There are approximately nine law enforcement staff members and U.S. Park Police patrolling park sites per shift; therefore, law enforcement must strategize which sites to assign staff to each shift. In addition many law enforcement staff patrol in pairs when monitoring for pet related compliance. Low use sites and small sites are not as regularly patrolled due to staffing limitations. Approximately less than 5 percent of law enforcement time is devoted to dog management-related issues.

TABLE 39A. NUMBER AND TYPE OF DOG-RELATED INCIDENTS AT SAN MATEO COUNTY SITES, 2008–2011

	Mori Point	Milagra Ridge	Sweeney Ridge and Cattle Hill
Hazardous Condition	3	0	1
Off-Leash Violation	146	35	113
Pet Excrement	1	1	0
Possessing Pet in Closed Area	0	0	1
Violation of Closed Area	1	0	0
Other	2	3	0
Total	153	39	115

Note: Citations for possessing a pet in a closed area and violation of a closed area are used interchangeably on incident reports, but are separate violations; therefore, they were not compiled in this analysis.

No data are available for Rancho Corral de Tierra.

TABLE 39B. NUMBER AND TYPE OF DOG-RELATED INCIDENTS AT SAN MATEO COUNTY SITES, 2012–2016

	Mori Point	Milagra Ridge	Sweeney Ridge and Cattle Hill	Rancho Corral de Tierra
Animal Complaint	1	1	3	1
Dog Bite	0	1	0	0
Dog Walker in Closed Area	3	3	3	0
Violation of Leash Law	8	10	11	10
Dog/Wildlife Interaction	1	0	0	0
Resource Violation	0	0	1	1
Total	13	15	18	12

Note: Citations for possessing a pet in a closed area and violation of a closed area are used interchangeably on incident reports, but are separate violations; therefore, they were not compiled in this analysis.

Mori Point

Alternative A: No Action. Currently, on-leash dog walking is allowed on all trails at Mori Point. Visitor use in this area is considered moderate to high for walkers, runners, and bicyclists and moderate to high for dog walkers on weekdays depending on the season (table 10). Between 2008 and 2011, a total of 153 pet-related incidents were recorded at this site. Pet-related violations included 146 leash law violations, 3 hazardous conditions violations (including 2 dog bites/attacks), one case of a visitor walking a dog in a closed area, and one pet excrement violation (table 39a). No unattended pet violations were documented at this site between 2008 and 2011. Between 2012 and 2016 a total of 13 pet-related incidents were recorded at Mori Point. Violations included eight leash law violations, three dog walkers in closed areas, one animal complaint, and one dog/wildlife interaction (table 39b).

Under the no-action alternative, on-leash dog walking impacts on the health and safety of park visitors and staff would continue to be long-term, minor, and adverse. As shown in the 2008 through 2011 law enforcement data, noncompliance with dog walking regulations at the site would continue, and the chance of an individual being injured in a dog-related incident would still exist. In addition, the safety of staff could be at risk when performing rescues from hazardous areas.

Under alternative A, no permit system exists for dog walking. At Mori Point, commercial dog walking is uncommon. Therefore, commercial dog walking would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Mori Point were considered for the cumulative impacts analysis (appendix K). The *Mori Point Restoration and Trail Plan* project, included development of a safe and sustainable trail system which improved recreational experiences and guided visitors away from disturbed areas, restoration areas, and endangered species habitat areas (NPS 2010e, 1, GGNPC 2016,1). The CalTrans Devil’s Slide Tunnel project involved constructing two tunnels beneath San Pedro Mountain which provided a dependable highway between Pacifica and Montara (County of San Mateo 2016d, 1). The park’s *Fire Management Plan* would reduce hazardous fuel load in the area. Beneficial impacts on human health and safety would occur from these projects (NPS 2005b, 64). The impacts resulting from the past oil spill would add little to the cumulative impacts on health and safety since those impacts were found to be negligible.

The long-term, minor, adverse impacts on health and safety under alternative A were considered together with the beneficial effects of the projects mentioned above. Cumulatively, there would be negligible impacts on health and safety of park staff and visitors under this alternative at this park site.

MORI POINT ALTERNATIVE A CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term, minor, adverse impacts	Chance of pet-related incidents from unruly or aggressive dogs would continue to exist; site experiences a high number of leash law violations	Negligible cumulative impacts	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Under alternative B, on-leash dog walking would be allowed on the Mori Coastal Trail and the beach within the GGNRA boundary.

Impacts on the health and safety of park visitors and staff would be considered negligible. The chance of visitors coming into contact with an unruly or aggressive dog would exist. The safety of staff could be at risk when performing rescues from hazardous areas.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person with no permit required. Since commercial dog walking activity is not common at Mori Point, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Mori Point considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative B of the dog management plan, cumulative impacts to human health and safety would be beneficial.

MORI POINT ALTERNATIVE B CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Site receives moderate use by dog walkers; on-leash regulation would reduce opportunity for pet-related incidents	Beneficial cumulative impacts	No change, assuming compliance

Alternative C: Emphasis on Multiple Use – Balanced by County. Under alternative C, on-leash dog walking would be allowed on the Mori Coastal Trail, on Old Mori Trail, and on the beach within the GGNRA boundary.

Reducing the amount of area available for on-leash dog walking would result in impacts on the health and safety of park visitors and staff, but only at a negligible level. The chance of visitors coming into contact with an unruly or aggressive dog would exist, and the safety of staff could be at risk when performing rescues from hazardous areas.

Under alternative C at Mori Point, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Mori Point is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Mori Point is not common, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Mori Point considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative C of the dog management plan, cumulative impacts to human health and safety would be beneficial.

MORI POINT ALTERNATIVE C CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Site receives moderate use; on-leash regulation would reduce opportunity for pet-related incidents	Beneficial cumulative impacts	No change, assuming compliance

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, no dog walking would be allowed at Mori Point.

The elimination of dogs from this site would reduce the chances of dog bites or injuries occurring. The chance of visitors or park staff coming into contact with an unruly or aggressive dog would not exist. Additionally, restricting dogs from the site would eliminate the risk of exposure to pathogens or diseases associated with dog waste. Being able to walk a dog in the park helps maintain a healthy lifestyle. Restricting dog access from Mori Point could adversely impact the health of some visitors as they would no longer be able to exercise at this location. In addition, some visitors would be adversely impacted by the dog restriction because they would not feel safe recreating at the site without the presence of a dog. However, dog walking would be available at other nearby park sites. Impacts to the health and safety of park staff and visitors would be negligible.

Since dogs would not be allowed at Mori Point, there would be no impact from commercial dog walkers to the health and safety of visitors and staff.

Cumulative Impacts. Projects and actions in and near Mori Point considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative D of the dog management plan, cumulative impacts to human health and safety would be beneficial

MORI POINT ALTERNATIVE D CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Dogs would be prohibited at the site	Beneficial cumulative impacts	Beneficial, assuming compliance

Alternative E: Most Dog Walking Access / Most Management Intensive. Under alternative E, on-leash dog walking would be allowed on the Mori Coastal Trail, Old Mori Trail, Pollywog Trail, and the beach within the GGNRA boundary.

Impacts on the health and safety of park visitors and staff would be considered negligible. The chance of visitors coming into contact with an unruly or aggressive dog would exist. The safety of staff could be at risk when performing rescues from hazardous areas.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Mori Point is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Mori Point is not common, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Mori Point considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative E of the dog management plan, cumulative impacts to human health and safety would be beneficial

MORI POINT ALTERNATIVE E CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Site receives moderate use; on-leash regulation would reduce opportunity for pet-related incidents	Beneficial cumulative impacts	No change, assuming compliance

Alternative F: Preferred Alternative. The preferred alternative includes on-leash dog walking along the Coastal Trail, Old Mori Road, Pollywog Trail, Mori Headlands Trail, and the southeastern section of Sharp Park beach within the GGNRA boundary.

Reducing the amount of area available for on-leash dog walking would result in impacts on the health and safety of park visitors and staff, but only at a negligible level. The chance of visitors coming into contact with an unruly or aggressive dog would exist, and the safety of staff could be at risk when performing rescues from hazardous areas.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Mori Point is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Mori Point is not common, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Mori Point were considered for the cumulative impacts analysis (appendix K). The *Mori Point Restoration and Trail Plan* project, which included development of a safe and sustainable trail system improved the recreational experiences and guided visitors away from disturbed areas, restoration areas, and endangered species habitat areas (NPS 2010e, 1, GGNPC 2016,1). The CalTrans Devil’s Slide Tunnel project involved constructing two tunnels beneath San Pedro Mountain that provided a dependable highway between Pacifica and Montara (County of San Mateo 2016d, 1). The park’s *Fire Management Plan* would reduce hazardous fuel load in the area. Beneficial impacts on human health and safety would occur from these projects (NPS 2005b, 64). The impacts resulting from the past oil spill would add little to the cumulative impacts on health and safety since those impacts were found to be negligible.

The negligible impacts on health and safety under the preferred alternative were considered together with the beneficial effects of the projects mentioned above. Cumulatively, there would be beneficial impacts on health and safety of park staff and visitors under this alternative at this park site.

MORI POINT PREFERRED ALTERNATIVE F CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Site receives moderate use; on-leash regulation would reduce opportunity for pet-related incidents	Beneficial cumulative impacts	No change, assuming compliance

Milagra Ridge

Alternative A: No Action. Currently, on-leash dog walking is allowed on all trails throughout Milagra Ridge. Visitor use at this site is considered low for bicyclists, walkers, and hikers and high for local dog walkers (table 10). Between 2008 and 2011, a total of 39 pet-related incidents were recorded at this site. Pet-related violations included 35 leash law violations and one pet excrement violation (table 39a). No unattended pet violations, visitors walking dogs in closed areas, or hazardous conditions violations were documented at this site between 2008 and 2011. Between 2012 and 2016, a total of 15 pet-related incidents were recorded at Milagra Ridge. Violations included ten leash law violations, three dog walkers in closed areas, one animal complaint, and one dog bite (table 39b).

During the public comment period, the public described their experiences with dogs off-leash in at Milagra Ridge, where the current regulation limits dog walking to on-leash. One commenter stated, “I’ve been nipped in the butt by one of two off leash German shepherd dogs on the lower hillside of Milagra Ridge. This was a dog whose owner was calling him back as he charged the thirty feet to me. He was not responding to her voice control” (NPS 2011a, Correspondence 4625).

Under the no-action alternative, impacts on the health and safety of park visitors and staff would continue to be negligible to long term, minor, and adverse. Even though no dog bites/attacks were documented recently at this site, the chance of an individual being injured in a dog-related incident would exist; 35 leash law violations have been documented at Milagra Ridge.

Under alternative A, no permit system exists for dog walking. At Milagra Ridge, commercial dog walking is uncommon. Therefore, commercial dog walking would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Milagra Ridge were considered for the cumulative impacts analysis (appendix K). Long-term parkwide projects such as trail rehabilitation performed as part of park stewardship programs provide trail safety improvements at park sites such as Milagra Ridge. The park's *Fire Management Plan* would reduce hazardous fuel loads in areas adjacent to developed communities (NPS 2005b, 64). Beneficial impacts on human health and safety would occur from these projects.

Under alternative A, the negligible to long-term, minor, adverse impacts to the health and safety of park staff and visitors from dogs at Milagra Ridge, together with effects of the projects mentioned above were considered. The benefits to the health and safety of park staff and visitors from the park stewardship programs and *Fire Management Plan* is not expected to reduce the adverse impact of this alternative; therefore the cumulative analysis for this park site will focus on the results of the impact analysis for this alternative (NPS 2005b). The beneficial effects from these projects along with the negligible to long-term, minor, and adverse impacts from alternative A would result in negligible to long-term, minor, and adverse cumulative impacts.

MILAGRA RIDGE ALTERNATIVE A CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts to long-term minor adverse impacts	Site receives low to moderate dog use; no pet-related incidents have been recorded in recent years	Negligible to long-term, minor, and adverse cumulative impacts	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Alternative B would also allow dogs on leash on the fire road and the trail to the westernmost overlook and WW II bunker, as well as on the future Milagra Battery Trail. However, the trail to the top of the hill would not be open to dog walking in this alternative.

Impacts on the health and safety of park staff and visitors would be negligible. The chance of individuals encountering an aggressive or unruly dog would exist. The limitation on the number of dogs walked per person and the reduced area for on-leash dog walking should reduce adverse impacts on human health and safety.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person with no permit required. Since commercial dog walking is not common at Milagra Ridge, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Milagra Ridge considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative B of the dog management plan, cumulative impacts to human health and safety would be negligible.

MILAGRA RIDGE ALTERNATIVE B CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Site receives low to moderate use by dog walkers; access to portions of the site would be limited; no pet-related incidents have been recorded in recent years	Negligible cumulative impacts	No change, assuming compliance

Alternative C: Emphasis on Multiple Use – Balanced by County. Alternative C would have the same dog walking restrictions as alternative B and impacts to human health and safety would be the same: negligible.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Milagra Ridge is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Milagra Ridge is not common, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Cumulative impacts to human health and safety would be the same as alternative B: negligible.

MILAGRA RIDGE ALTERNATIVE C CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Site receives low to moderate use by dog walkers; access to portions of the site would be limited; no pet-related incidents have been recorded in recent years	Negligible cumulative impacts	No change, assuming compliance

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, no dog walking would be allowed at Milagra Ridge.

The elimination of dogs from this site would reduce the chances of dog bites or injuries occurring. The chance of visitors or park staff coming into contact with an unruly or aggressive dog would not exist. Additionally, restricting dogs from the site would eliminate the risk of exposure to pathogens or diseases associated with dog waste. Being able to walk a dog in the park helps maintain a healthy lifestyle. Restricting dog access from Milagra Ridge could adversely impact the health of some visitors as they would no longer be able to exercise at this location. In addition, some visitors would be adversely impacted by the dog restriction because they would not feel safe recreating at the site without the presence of a dog. However, dog walking would be available at other nearby park sites. Impacts to the health and safety of park staff and visitors would be negligible.

Since dogs would not be allowed at Milagra Ridge, there would be no impact from commercial dog walkers to the health and safety of visitors and staff.

Cumulative Impacts. Projects and actions in and near Milagra Ridge considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated

with these projects are added to the negligible impacts associated with alternative D of the dog management plan, cumulative impacts to human health and safety would be negligible.

MILAGRA RIDGE ALTERNATIVE D CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Dogs would be prohibited	Negligible cumulative impacts	Beneficial, assuming compliance

Alternative E: Most Dog Walking Access / Most Management Intensive. Under alternative E, on-leash dog walking would be allowed on the Fire Road, on the trail to the westernmost overlook and WW II bunker, along the future Milagra Ridge Connector Trail, and on the trail to the top of the hill at the west end of the site.

Impacts on human health and safety would be anticipated to be negligible. The chance of individuals encountering an aggressive or unruly dog would exist, resulting in possible injuries to park visitors or staff.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Milagra Ridge is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Milagra Ridge is not common, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Milagra Ridge considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative E of the dog management plan, cumulative impacts to human health and safety would be negligible.

MILAGRA RIDGE ALTERNATIVE E CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Site receives low to moderate use by dog walkers; no pet-related incidents have been recorded in recent years	Negligible cumulative impacts	No change, assuming compliance

Alternative F: Preferred Alternative. The preferred alternative would include on-leash dog walking on the Fire Road within the park boundary from the Sharp Park Road entrance west to the Milagra Battery Trail, and the Milagra Ridge Battery Trail from the Battery #244 (Bunker) to the parking lot at the western NPS boundary of the site. Dog walking would not be allowed on the Milagra Ridge and Milagra Overlook Trails and the Milagra Ridge Spur, which together extend across the site.

Impacts on the health and safety of park staff and visitors would be negligible. The chance of individuals encountering an aggressive or unruly dog would exist. The limitation on the number of dogs walked per person and the reduced area for on-leash dog walking should reduce adverse impacts on human health and safety.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Milagra Ridge is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Milagra Ridge is not common, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Milagra Ridge were considered for the cumulative impacts analysis (appendix K). Long-term parkwide projects such as trail rehabilitation performed as part of park stewardship programs provide trail safety improvements at park sites such as Milagra Ridge. The park’s *Fire Management Plan* would reduce hazardous fuel loads in areas adjacent to developed communities (NPS 2005b, 64). Beneficial impacts on human health and safety would occur from these projects.

The negligible impacts on human health and safety under the preferred alternative were considered together with the beneficial effects of the projects mentioned above. Cumulatively, there would be negligible impacts on the human health and safety of park staff and visitors under this alternative at this park site.

MILAGRA RIDGE PREFERRED ALTERNATIVE F CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Site receives low to moderate use by dog walkers; access to portions of the site would be limited; no pet-related incidents have been recorded in recent years	Negligible cumulative impacts	No change, assuming compliance

Sweeney Ridge/Cattle Hill

Alternative A: No Action. Currently, on-leash dog walking is allowed on all trails at Sweeney Ridge except the Notch Trail. Cattle Hill is not currently part of GGNRA, but unrestricted dog walking occurs at this site. Visitor use (mainly hikers and bicyclists) at these sites is low to moderate on weekends and dog walking is considered a moderate use activity (table 10). Between 2008 and 2011, a total of 115 pet-related incidents were recorded at Sweeney Ridge. Pet-related violations included 113 leash law violations, one hazardous condition violation, and one pets in closed areas violation (table 39a). No unattended pet or pet excrement were documented at this site between 2008 and 2011. Between 2012 and 2016, a total of 18 pet-related incidents were recorded at Sweeney Ridge and Cattle Hill. Violations included 11 leash law violations, three animal complaints, 3 dog walkers in closed areas, and 1 resource violation (table 39b).

Under alternative A, on-leash dog walking impacts on the health and safety of park visitors at Sweeney Ridge/Cattle Hill would be negligible. Even though no dog bite/attack violations were documented recently at the Sweeney Ridge, the chance of an individual being injured in a dog-related incident would exist. In addition, 115 leash law violations were documented at this site, increasing the chances that visitors could be injured by an off-leash dog.

Under alternative A, no permit system exists for dog walking. At Sweeney Ridge/Cattle Hill, commercial dog walking is uncommon. Therefore, commercial dog walking would have negligible impacts on human health and safety at Sweeney Ridge/Cattle Hill.

Cumulative Impacts. Projects and actions in and near Sweeney Ridge/Cattle Hill were considered for the cumulative impacts analysis (appendix K). Mainly, the park’s *Fire Management Plan* would reduce

hazardous fire hazards adjacent to the Vallemar neighborhood and maintain adequate fire road access (NPS 2005b, 64). Beneficial impacts on human health and safety would occur from this project.

The negligible impacts on human health and safety under alternative A were considered together with the beneficial effects of the project mentioned above. Cumulatively, there would be negligible impacts on the human health and safety of park staff and visitors under this alternative at this park site.

SWEENEY RIDGE/CATTLE HILL ALTERNATIVE A CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts	Site receives low visitor use; no pet-related incidents have been recorded in recent years, although leash law violations have been documented	Negligible cumulative impacts	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Under alternative B, no dog walking would be allowed at Sweeney Ridge and Cattle Hill.

The elimination of dogs from this site would reduce the chances of dog bites or injuries occurring. The chance of visitors or park staff coming into contact with an unruly or aggressive dog is remote. Additionally, restricting dogs from the site would eliminate the risk of exposure to pathogens or diseases associated with dog waste. Being able to walk a dog in the park helps maintain a healthy lifestyle. Restricting dog access from Sweeney Ridge and Cattle Hill could adversely impact the health of some visitors as they would no longer be able to exercise at this location. In addition, some visitors would be adversely impacted by the dog restriction because they would not feel safe recreating at the site without the presence of a dog. However, dog walking would be available at other nearby park sites. Impacts to the health and safety of park staff and visitors would be negligible.

Since dogs would not be allowed at Sweeney Ridge and Cattle Hill, there would be no impact from commercial dog walkers to the health and safety of visitors and staff.

Cumulative Impacts. Projects and actions in and near Sweeney Ridge/Cattle Hill considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative B of the dog management plan, cumulative impacts to human health and safety would be negligible.

SWEENEY RIDGE/CATTLE HILL ALTERNATIVE B CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Dogs would be prohibited	Negligible cumulative impacts	Beneficial, assuming compliance

Alternative C: Emphasis on Multiple Use – Balanced by County. Under alternative C, no dog walking would be allowed at Sweeney Ridge. On-leash dog walking would be allowed at Cattle Hill on the Baquiano Trail from Fassler Avenue up to and including the Farallon View Trail. Changes to the dog walking regulation at Cattle Hill would not occur until the land is transferred to the NPS. There would be

negligible impacts on human health and safety at Sweeney Ridge because restricting dog access would affect the health of some visitors through reduced exercise, while other visitors, would not feel safe recreating at the site without the presence of a dog. The chance of individuals encountering unruly or aggressive dogs would no longer exist. Additionally, restricting dogs from this area would eliminate the risk of exposure to pathogens or diseases associated with dog waste. Impacts on the health and safety of park visitors at Cattle Hill would be negligible. Even though no dog bites/attacks were documented recently at this site, the chance of an individual being injured in a dog-related incident would exist.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Sweeney Ridge/Cattle Hill is not one of the sites where permits to walk more than three dogs would be issued. Since dogs would not be allowed at Sweeney Ridge, there would be no impact at Sweeney Ridge from commercial dog walkers. Since commercial dog walking is not common at Cattle Hill, it is likely that the new regulation would have negligible impacts on human health and safety at Cattle Hill.

Cumulative Impacts. Projects and actions in and near Sweeney Ridge/Cattle Hill considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative C of the dog management plan, cumulative impacts to human health and safety would be negligible.

SWEENEY RIDGE/CATTLE HILL ALTERNATIVE C CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts at Sweeney Ridge, assuming compliance	Dogs would be prohibited	Negligible cumulative impacts	Sweeney Ridge: Beneficial, assuming compliance Cattle Hill: No change, assuming compliance
Negligible impacts at Cattle Hill, assuming compliance	Site receives low use; no pet-related incidents have been recorded in recent years, although leash law violations have been documented		

Alternative D: Most Protective of Resource Protection and Visitor Safety. Alternative D would have the same dog walking restrictions as alternative B and impacts to human health and safety would be the same: negligible.

Since dogs would not be allowed at Sweeney Ridge and Cattle Hill, there would be no impact from commercial dog walkers to the health and safety of visitors and staff.

Cumulative Impacts. Cumulative impacts to human health and safety would be the same as alternative B: negligible.

SWEENEY RIDGE/CATTLE HILL ALTERNATIVE D CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impact, assuming compliance	Dogs would be prohibited	Negligible cumulative impacts	Beneficial, assuming compliance

Alternative E: Most Dog Walking Access / Most Management Intensive. Under alternative E, at Sweeney Ridge, on-leash dog walking would be allowed on Sneath Lane, Sweeney Ridge Trail from the Portola Discovery site to the Notch Trail, and to the junction with Mori Ridge Trail. At Cattle Hill, on-leash dog walking would be allowed on the Baquiano Trail from Fassler Trail up to and including the Farallon View Trail.

The chance of park visitors and staff encountering an unruly or aggressive dog at Sweeney Ridge/Cattle Hill would exist. Impacts would be expected to be negligible based on the history at the site; no dog bite/attack violations were documented recently at Sweeney Ridge.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Sweeney Ridge/Cattle Hill is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Sweeney Ridge/Cattle Hill is not common, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Sweeney Ridge/Cattle Hill considered for the cumulative impacts analysis would be the same as those described under alternative A. When the impacts associated with these projects are added to the negligible impacts associated with alternative E of the dog management plan, cumulative impacts to human health and safety would be negligible.

SWEENEY RIDGE/CATTLE HILL ALTERNATIVE E CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	Site receives low use; no pet-related incidents have been recorded in recent years, although leash law violations have occurred	Negligible cumulative impacts	No change, assuming compliance

Alternative F: Preferred Alternative. Under the preferred alternative, on-leash dog walking would be allowed at Sweeney Ridge on Sneath Lane and the Sweeney Ridge Trail between the Portola Discovery site and the Nike Missile Site, and at Cattle Hill on the Baquiano Trail from Fassler Avenue gate to the intersection with, and including the Farallon View Trail. Changes to the dog walking regulation at Cattle Hill would not occur until the land is transferred to the NPS. Impacts on the health and safety of park visitors and staff at Sweeney Ridge and Cattle Hill would be negligible. Even though no dog bites/attacks were documented recently at this site, the chance of an individual being injured in a dog-related incident would exist.

Under the preferred alternative, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. At some sites any dog walker, commercial or private, could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. However, no permits would be allocated at Sweeney Ridge/Cattle Hill, so individual and commercial dog walkers would only be allowed to walk one to three dogs on leash per person. Since commercial dog walking is not common at Sweeney Hill/Cattle Hill, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Sweeney Ridge/Cattle Hill were considered for the cumulative impacts analysis (appendix K). Mainly, the park’s *Fire Management Plan* would reduce

hazardous fire hazards adjacent to the Vallemar neighborhood and maintain adequate fire road access (NPS 2005a, 64). Beneficial impacts on human health and safety would occur from this project.

The negligible impacts on human health and safety under the preferred alternative were considered together with the beneficial effect of the park’s *Fire Management Plan* (NPS 2005b). Cumulatively, there would be negligible impacts on the human health and safety of park staff and visitors under this alternative at this park site.

SWEENEY RIDGE/CATTLE HILL PREFERRED ALTERNATIVE F CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts assuming compliance	Site receives low use; no pet-related incidents have been recorded in recent years, although leash law violations have occurred	Negligible cumulative impacts	Beneficial, assuming compliance

Rancho Corral de Tierra

Alternative A: No Action. Rancho Corral de Tierra was transferred to GGNRA in December of 2011. On-leash dog walking is available throughout Rancho Corral de Tierra, while off leash, voice control dog walking is not allowed. Use at this site is considered low to moderate for hikers, bikers, and horseback riders. Overall use by dog walkers is moderate, but can be high in the Montara area of the site (table 10). Since the site is a recent addition to GGNRA, law enforcement data is only available from 2012 to 2016. During this period a total of 12 pet-related incidents were recorded. Violations include 10 leash law violations, one animal complaint, and one resource violation (table 39b).

Prior to Rancho Corral de Tierra being transferred to the NPS, restrictions on dog walking at this site was not permitted by the land owner, but was not enforced. During the public comment period, the public described their experiences with leashed and off-leash dogs in Rancho Corral del Tierra. One commenter stated, “I hike regularly in this area and off leash dogs are a public safety hazard. On numerous occasions, I have nearly been attacked by off leash dogs. This is a very frightening experience and significantly interferes with my enjoyment of this beautiful land. As many dogs currently roam off leash on this property, the on-leash law will need to be strictly enforced once GGNRA begins to manage the land. I would not want to completely ban dogs from this property as many members of the dog walking community in this area do keep their dogs on leash and pick up after their dogs. However, in my 13 years of experience hiking in this area, voice control DOES NOT WORK for many dogs and should never be allowed on any of these lands. Aggressive dogs can cause significant safety hazards and limit the enjoyment of others who want to use the land without fear of being attacked by a dog” (NPS 2011a, Correspondence 3138).

Under the no-action alternative, impacts on the health and safety of park visitors and staff would continue to be long term, minor to moderate, and adverse. Since walking dogs off-leash is common, in spite of the NPS leash regulation, and all trails are open to dog walking, the chance of visitors and staff encountering unruly or aggressive dogs would continue to exist.

Under alternative A, no permit system exists for dog walking. At Rancho Corral de Tierra, use by commercial dog walking is considered low. Therefore, commercial dog walking would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Rancho were considered for the cumulative impacts analysis (appendix K). The transfer of Rancho Corral de Tierra to the NPS offers benefits for visitor and staff health and safety at this park site. Since the site has been transferred to the NPS, general protection of the site and park resources has been occurring, although some impacts may remain from prior unregulated off-leash dog walking.

The following is a discussion of projects that have had, are currently having, or will have effects on human health and safety at or in the vicinity of Rancho Corral de Tierra. Since the site has been transferred to NPS, general protection of the site and park resources would occur which would benefit health and safety. For example, long-term parkwide projects such as trail rehabilitation performed by park maintenance and as part of the park stewardship programs provide improvements and enhancements that would benefit safety on site trails. The long-term, minor to moderate, adverse impacts on human health and safety under alternative A were considered together with the beneficial effects of the projects mentioned above. Cumulatively, there would be long-term, minor, adverse impacts on health and safety at this park site under this alternative.

RANCHO CORRAL DE TIERRA ALTERNATIVE A CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term minor to moderate adverse impacts	Chance of park visitors and staff encountering an unruly or aggressive dog would continue to exist	Long-term minor adverse cumulative impacts	N/A

N/A = not applicable.

Alternative B: NPS Leash Regulation. Under alternative B, on-leash dog walking would be allowed on designated trails in two areas open to dog walking near Montara and El Granada.

Impacts on the health and safety of park visitors and staff would be negligible. The amount of area available for dog walking would be reduced by 9.72 miles of trails. The chance of visitors and staff encountering unruly or aggressive dogs would still exist, even with dogs on leash. Requiring dogs to be walked on leash would reduce the chances of incidents occurring, since dog walkers would have more control over their dogs. In addition, a large portion of the site would be available for recreation without the presence of dogs.

Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person with no permit required. Since commercial dog walking is not common at the Rancho Corral de Tierra, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. The negligible impacts on human health and safety under alternative B were considered together with the beneficial effects of the projects mentioned above under alternative A. Cumulatively, there would be beneficial impacts on health and safety at this park site under this alternative.

RANCHO CORRAL DE TIERRA ALTERNATIVE B CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	On-leash dog walking would minimize opportunity for encountering an unruly or aggressive dog	Beneficial cumulative impacts	Beneficial assuming compliance

Alternative C: Emphasis on Multiple Use – Balanced by County. Under alternative C, on-leash dog walking would be allowed on designated trails in two areas open to dog walking near Montara and El Granada. A new VSCA would also be established between Le Conte and Tamarind Street, across the street and east of Farallone View School.

Impacts to health and safety would be long-term, minor, and adverse. Having dogs under voice and sight control would increase the risk of dog bites/attacks since dog owners would not have the control of a leash, however the area would be clearly defined and easily avoidable. An additional risk from dog-to-dog interaction could result from people trying to separate dogs, which could increase the chances of injuries occurring.

Under alternative C, all dog walkers, including commercial dog walkers, would be allowed up to three dogs with no permit required. However, Rancho Corral de Tierra is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Rancho Corral de Tierra is not common, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. The long-term, minor, adverse impacts on human health and safety under alternative C were considered together with the beneficial effects of the projects mentioned above under alternative A. Cumulatively, there would be negligible impacts on health and safety at this park site under this alternative.

RANCHO CORRAL DE TIERRA ALTERNATIVE C CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term, minor, adverse impacts	Chance of park visitors and staff encountering an unruly or aggressive dog would exist, including within the newly established VSCA	Negligible cumulative impacts	Beneficial assuming compliance

Alternative D: Most Protective of Resource Protection and Visitor Safety. Under alternative D, on-leash dog walking would be allowed on the two existing San Mateo County trails: Old San Pedro Mountain Road and the Farallon Cutoff in Montara.

Impacts on the health and safety of park visitors and staff would be negligible. The area available for dog walking would be reduced 15.1 miles, allowing recreation without the presence of dogs. The chance of visitors and staff encountering unruly or aggressive dogs would still exist, even with dogs on leash; however, this would only occur within 1.10 miles of trails at the site.

No commercial dog walking or permits to walk more than three dogs would be allowed under alternative D. Since commercial dog walking is not common at the Rancho Corral de Tierra, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. The negligible impacts on human health and safety under alternative D were considered together with the beneficial effects of the projects mentioned above under alternative A. Cumulatively, there would be beneficial impacts on health and safety at this park site under this alternative.

RANCHO CORRAL DE TIERRA ALTERNATIVE D CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Negligible impacts, assuming compliance	On-leash dog walking would minimize opportunity for encountering an unruly or aggressive dog	Beneficial cumulative impacts	Beneficial, assuming compliance

Alternative E: Most Dog Walking Access / Most Management Intensive. Alternative E restrictions would be the same as those for alternative C: on-leash dog walking would be allowed on designated trails in two areas open to dog walking near Montara and El Granada. A VSCA would also be established between Le Conte and Tamarind Street, across the street and east of Farallone View School.

Impacts on health and safety would be the same as alternative C: long-term, minor, and adverse.

Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs with no permit required. However, Rancho Corral de Tierra is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking activity at Rancho Corral de Tierra is not common, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Cumulative impacts would be the same as alternative C: negligible.

RANCHO CORRAL DE TIERRA ALTERNATIVE E CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term, minor, adverse impacts	Chance of park visitors and staff encountering an unruly or aggressive dog would exist, including within the newly established VSCA	Negligible cumulative impacts	Beneficial, assuming compliance

Alternative F: Preferred Alternative. The preferred alternative would allow on-leash dog walking for up to three dogs on designated trails in three areas, Montara, El Granada, and Moss Beach. Trails in Montara include Old San Pedro Mountain Road, LeConte Trail, Corona Pedro Trail, and Farallon Trail (Cutoff) from the park boundary in the west to the intersection with Corona Pedro Trail, and Farallon Cutoff from the park boundary in the west to the intersection with Corona Pedro Trail. Dogs would not be allowed east on the Farallon Trail beyond the Corona Pedro Trail to provide a dog-free trail experience that later can connect to the Alta Vista trail. On-leash trails permitted in the El Granada area include the Denniston Ridge Trail between San Carlos Trail and intersection with the Clipper Ridge Trail, the Clipper

Ridge Trail, the Memorial Loop, Almeria Trail, and the San Carlos Trail. On-leash dogs would be allowed on the trails in the Moss Beach area on the Vincente Ridge and Ranchette Trails. A VSCA would be established within the El Granada area. The VSCA would be located at Flattop Mountain and can be accessed via the on-leash Almeria Trail.

Impacts on the health and safety of park visitors and staff would be long-term, minor, and adverse. Having dogs under voice and sight control would increase the risk of dog bites/attacks since dog owners would not have the control of a leash, however the area would be clearly defined and easily avoidable. An additional risk from dog-to-dog interaction could result from people trying to separate dogs, which could increase the chances of injuries occurring.

All dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person with no permit required. However, Rancho Corral de Tierra is not one of the sites where permits to walk more than three dogs would be issued. Since commercial dog walking is not common at the Rancho Corral de Tierra, it is likely that the new regulation would have negligible impacts on human health and safety.

Cumulative Impacts. Projects and actions in and near Rancho were considered for the cumulative impacts analysis (appendix K). The transfer of Rancho Corral de Tierra to the NPS results in benefits for visitor and staff health and safety at this park site. Since the site has been transferred to the NPS, general protection of the site and park resources has been occurring, although some impacts may remain from prior unregulated off-leash dog walking.

The following is a discussion of projects that have had, are currently having, or will have effects on human health and safety at or in the vicinity of Rancho Corral de Tierra. The recent transfer of Rancho Corral de Tierra to NPS offers new opportunities and experiences to the park visitors, resulting in benefits for human health and safety at this park site. Since the site has been transferred to the NPS, general maintenance and protection of the site and park resources have been occurring which would benefit health and safety. For example, long-term parkwide projects such as trail rehabilitation performed by park maintenance staff and park stewardship programs provide improvements and enhancements that would benefit safety on site trails. The long-term, minor, adverse impacts on human health and safety under the preferred alternative were considered together with the beneficial effects of the projects mentioned above under alternative A. Cumulatively, there would be negligible impacts on health and safety at this park site under this alternative.

RANCHO CORRAL DE TIERRA PREFERRED ALTERNATIVE F CONCLUSION TABLE

Health and Safety Impacts	Rationale	Cumulative Impacts	Impact Change Compared to Current Conditions
Long-term, minor, adverse impacts	Chance of park visitors and staff encountering an unruly or aggressive dog would exist, including within the newly established VSCA	Negligible cumulative impacts	Beneficial assuming compliance

SUSTAINABILITY AND LONG-TERM MANAGEMENT

In accordance with NEPA and as further explained in NPS Director’s Order 12, consideration of long-term impacts and the effects of foreclosing future options should pervade a plan/EIS. According to Director’s Order 12 and as defined by the World Commission on Environmental Development,

“sustainable development is that which meets the need of the present without compromising the ability of future generations to meet their needs.” For each alternative considered for this dog management plan/EIS, considerations of sustainability that demonstrate the relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity are described in the following section. This section also discusses the irreversible (permanent loss or non-renewable resource) or irretrievable (short-term loss or loss of renewable resource) commitments of resources as alternatives would require as well as adverse impacts that would be mitigated or avoided by the implementation of monitoring-based management program. This project is unique in that adverse effects to resources are currently occurring as a result of the no-action alternative (alternative A), which is documented by numerous pet-related incident reports and citations. Therefore, the proposed action alternatives (B through F) have been developed to reduce adverse effects to park resources.

MONITORING-BASED MANAGEMENT PROGRAM

As stated in chapter 2, the monitoring-based management program is an important and effective tool to manage uncertainty when proposing new actions. The monitoring-based management program has been created to ensure that the purpose, need, and objectives of the dog management plan are successfully achieved, for the sustainability and long-term management of park resources, and to protect park resources, visitors, and staff. The monitoring-based management program would be implemented to document compliance with the dog walking regulation and impacts to resources and would apply to all action alternatives. The monitoring-based management program is aimed at gathering data on noncompliance incidents to prevent recurring incidents from becoming unacceptable impacts. The monitoring-based management program would provide for the long-term protection of park resources. The impacts related to the monitoring-based management program are evaluated in the section “Visitor Use and Experience.”

SHORT-TERM USES VERSUS LONG-TERM ENHANCEMENT OF RESOURCES

The proposed project would be focused on promoting sustainability and long-term resource enhancement with some short-term resource damage or use. The monitoring-based management program would reduce or eliminate the potential for most of the longer-term impacts. However, NPS must consider if the effects of the project alternatives involve tradeoffs of the long-term productivity and sustainability of park resources for the immediate short-term use of those resources. It must also consider if the effects of the alternatives are sustainable over the long term without causing adverse environmental effects for future generations (NEPA Section 102(c)(iv)) as described in more detail by alternative in the paragraphs that follow.

Alternative A is the no-action alternative; current dog walking management and conditions would remain the same, which would include 36 CFR 2.15, 36 CFR 7.97(d), the 1979 Pet Policy, and the GGNRA Compendium. The NPS currently cannot enforce the NPS-wide regulation requiring pets to be on leash (36 CFR 2.15(a)(2)) in areas that were included in the 1979 Pet Policy. Under alternative A, an undefined policy never promulgated as an enforceable regulation governing dog activities within certain areas of the park compromises the natural resources of the park as well as the ability of future generations to enjoy the park. Alternative A would threaten both short-term use of park resources as well as the long-term sustainability of these resources. Dog walking activities would continue within the park as they have under the 1979 Pet Policy, and 36 CFR 2.15 and 7.97 (d) resulting in long-term impacts, particularly in areas designated as off leash in the 1979 Pet Policy; degradation of soil, vegetation and water resources; disturbance to native wildlife and their habitat as well as special-status species; detracting from visitor experience; disruption of cultural resources; and compromising visitor health and safety within the park would continue to occur. For example, alternative A fails to provide a long-term solution for balancing dog walking opportunities at Crissy Field and Ocean Beach with the protection of the federally listed

western snowy plover. The no-action alternative would only provide for temporary protection of this species under the current Final Rule (36 CFR 7) implemented October 20, 2007. Dog activities under the no-action alternative would continue to threaten other special-status species and their habitat as well, including the mission blue butterfly, tidewater goby, coho salmon, steelhead trout, bank swallow, and many others. Special-status vegetation species, including the Franciscan manzanita, Presidio manzanita, Presidio clarkia, marsh sandwort, Marin western flax, and San Francisco lessingia are a few of the federally listed species that would continue to be adversely affected by the no-action alternative. The no-action alternative does not provide protection for these special-status species from dogs, nor is it consistent with the recovery plans for these species, including the San Bruno elfin, mission blue butterfly, northern spotted owl, western snowy plover, San Francisco garter snake, tidewater goby, and California red-legged frog. Additionally, the dog management policy that would continue as a result of the no-action alternative would be inconsistent with NPS regulations, would increase controversy and conflict, and could lead to future litigation. Therefore, alternative A would trade off the short-term use of park resources for long-term productivity. Existing dog walking opportunities would be allowed in the short-term; however, dogs would continue to degrade the natural resources at the park, thus compromising the long-term productivity of soils, water resources, vegetation, wildlife, and special-status species at the park.

Alternative B is defined as management conditions regulated by 36 CFR 2.15(a)(2) that require on leash dog walking in national parks where allowed. All dog walkers, including commercial dog walkers, would be allowed up to three dogs per person and no permit would be required. This alternative was specifically developed to follow the NPS servicewide approach to dog walking as defined in NPS Leash Regulation. Alternative B is different from alternative A because alternative B would not allow off-leash dog walking at any of the sites but does provide short- and long-term dog walking opportunities for this and future generations. Under alternative B, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person with no permit required. Assuming compliance with proposed regulations, this alternative would generally improve the long-term sustainability of natural resources within the park, although some short-term impacts are unavoidable. However, these impacts would not be greater than the impacts described for alternative A, but would either be the same or reduced in duration and/or intensity. Additionally, alternative B would apply the monitoring-based management program to offset impacts associated with noncompliance. Compared to alternative A, alternative B would help conserve natural resources at the park over the long term because it proposes on-leash dog walking and enforcement of these regulations. Therefore, alternative B would be more sustainable than alternative A and would provide for greater long-term enhancement and long-term protection of park resources. However, in order to be sustainable, education and enforcement would require long-term management, including compliance monitoring. These actions would require periodic commitment of funds and personnel for the foreseeable future to ensure protection of park resources. The result of this alternative would include the long-term productivity and sustainable use of the natural resources in the park.

Alternative C emphasizes the variety of visitor experiences that can be attained of GGNRA sites and apportions dog walking geographically across Marin, San Francisco, and San Mateo counties by allowing a variety of options in each county, including on leash dog walking and VSCAs; alternative C is different from alternative B because alternative C would allow VSCAs for dogs. In addition, alternative C would allow all dog walkers, including commercial dog walkers, to walk one to three dogs per person with no permit required. At some sites, any dog walker, commercial or private, can obtain a permit to walk more than three dogs on leash, with a limit of six dogs. In a VSCA, permit holders may have up to six dogs off leash. This alternative was specifically developed to emphasize recreation opportunities and experiences for multiple user groups, including dog walkers, while considering visitor and dog safety and minimizing conflict between dog walkers and other visitors. Alternative C would provide a no-dog experience for visitors at some sites and would also protect cultural and natural resources at the park. Similar to alternative B, assuming compliance with proposed regulations, alternative C would generally improve the

long-term sustainability of natural resources within the park, although some short-term impacts would be unavoidable. This alternative was developed to reduce adverse effects to natural resources and to balance recreation and health/safety with the protection of natural resources, although some short-term impacts would be unavoidable. However, these impacts would not be greater than the impacts described above for alternative A, but would either be the same or reduced in duration and/or intensity. Alternative C would also apply the monitoring-based management program to offset impacts associated with noncompliance. Alternative C would be expected to minimize potential conflict, reduce potential health and safety issues, and protect natural and cultural resources, while providing dog walkers with recreational options, including off-leash dog walking. Similar to alternative B, in order to be sustainable, this alternative would require long-term management, including compliance monitoring. These actions would require periodic commitment of funds and personnel for the foreseeable future to ensure protection of park resources. The result of this alternative would include the long-term productivity and sustainable use of the natural resources in the park.

Alternative D provides the highest level of protection for natural and cultural resources and the highest level of visitor safety. Alternative D would allow options for dogs to be exercised on leash and in a limited number of VSCAs (compared to alternatives C and E), but would be more protective in areas where natural resources (plant and wildlife species) and cultural resources are located. In addition, no permits for more than three dogs would be issued under alternative D. The more protective dog management elements offered in alternative D would also provide a stronger measure of visitor protection for both dog walkers and other park visitors and assuming compliance with proposed regulations, would improve the long-term sustainability of natural resources within the park. Alternative D is different from alternative B because it would allow VSCAs for dogs but no commercial dog walking would be allowed under alternative D. This alternative was developed specifically to reduce adverse effects to natural resources and to balance recreation and health/safety with the protection of natural resources, although some short-term impacts would be unavoidable. However, these impacts would not be greater than the impacts described for alternative A, but would either be the same and in many cases reduced in duration and/or intensity. Alternative D would also apply the monitoring-based management program to offset impacts associated with noncompliance. Similar to alternative B, in order to be sustainable, this alternative would require long-term management, including compliance monitoring. These actions would require periodic commitment of funds and personnel for the foreseeable future to ensure protection of park resources. The result of this alternative would include the long-term productivity and sustainable use of the natural resources in the park.

Alternative E would provide the greatest level of access for dog walkers throughout GGNRA but would also require the most intensive management to ensure that greater access for dog walkers would not impact natural and cultural resources, visitor safety, and visitor experience. Similar to alternatives C and D, alternative E would allow options for dogs to be exercised on leash and in VSCAs while still providing protection for natural and cultural resources, including special-status species. Under alternative E, all dog walkers, including commercial dog walkers, would be allowed to walk one to three dogs per person with no permit required. At some sites, any dog walker could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. In a VSCA, permit holders could have up to six dogs off leash. This alternative was developed to reduce adverse effects to natural resources and to balance recreation and health/safety with the protection of natural resources. Similar to alternative B, assuming compliance with proposed regulations, this alternative would generally improve the long-term sustainability of natural resources within the park, although some short-term impacts are unavoidable. However, these impacts would not be greater than the impacts described for alternative A, but would either be the same or reduced in duration and/or intensity. Alternative E would also apply the monitoring-based management program to offset impacts associated with noncompliance. Similar to alternative B, in order to be sustainable, this alternative would require long-term management, including compliance monitoring. These actions would require periodic commitment of funds and personnel for the foreseeable future to ensure protection of

park resources. The result of this alternative would include the long-term productivity and sustainable use of the natural resources in the park.

Alternative F (Preferred Alternative) provides balanced visitor use and the protection of natural resources and visitor safety, and would best meet the objectives for the plan/EIS. Similar to alternatives C, D, and E, the preferred alternative would allow for dogs walking on leash and in VSCAs while still providing protection for natural and cultural resources, including special-status species. The preferred alternative would also allow all dog walkers, including commercial dog walkers, to walk one to three dogs per person with no permit required. At some sites in GGNRA, private and commercial dog walkers could obtain a permit to walk more than three dogs on leash, with a limit of six dogs. In VSCAs, these permit holders could have up to six dogs off leash. Permits may restrict use by time and area. This alternative was designed to encompass changes to the plan/EIS as a result of public comments.

Alternative F is the preferred alternative, and was altered, in part, in response to public comments received on the draft plan/EIS, the draft plan/SEIS, and the proposed rule. Similar to alternative B, this alternative would generally improve the long-term sustainability of natural resources within the park, assuming compliance. However, some short-term impacts are unavoidable. These impacts would not be greater than the impacts described above for alternative A, but would either be the same or reduced in duration and/or intensity. The preferred alternative would also apply the monitoring-based management program to offset impacts associated with noncompliance. This alternative would be expected to minimize potential conflict, reduce potential health and safety issues, and protect natural and cultural resources, while providing dog walkers with recreational options, including off-leash dog walking. Similar to alternative B, in order to be sustainable, this alternative would require long-term management, including compliance monitoring. These actions would require periodic commitment of funds and personnel for the foreseeable future to ensure protection of park resources. The result of this alternative would include the long-term productivity and sustainable use of the natural resources in the park.

ADVERSE IMPACTS THAT COULD NOT BE AVOIDED

The NPS is required to consider if the alternative actions would result in impacts that could not be fully mitigated or avoided (NEPA Section 101(c)(ii)). It is important to note that there would be negligible impacts to park resources under alternatives A through E and the preferred alternative at a number of park sites, but since negligible impacts would be neither adverse nor beneficial these impacts are not included in the paragraphs that follow. It is also noteworthy to mention that the impact analysis for visitor use and experience in chapter 4 described different user groups at GGNRA, including visitors who prefer to walk dogs on GGNRA lands and visitors who would prefer not to have dogs walked on GGNRA lands. Because these two user groups have opposing views on dogs in the park, the impacts to each of the user groups as a result of each alternative are conflicting. For example, if dogs are allowed at a site within the park, there would be an adverse impact to the user group of visitors who prefer not to have dogs at the park; contrastingly, this same alternative would create a beneficial impact to visitors who prefer to bring dogs to the park. Therefore, for each site and alternative, there would be both a beneficial and adverse impact to visitor use and experience, depending on the user group. This resource is not discussed further in this section to simplify the paragraphs that follow due to the opposing views of visitor groups at the park.

This project is unique in that alternative A currently results in adverse impacts to park resources and these impacts, therefore, are described as “continued” because the impacts would continue. Alternative A would continue to have adverse impacts that could not be mitigated or avoided, including the degradation of soils, vegetation, and water resources; disturbance to native wildlife and their habitat, including special-status species; detracting from visitor experience; disturbance of cultural resources; and compromise of visitor health and safety within the park. Specific adverse impacts vary by sites within the park but general conclusions can be made and ranges are presented in the following sentences. As a result

of alternative A, there would be a range of long-term minor to major adverse impacts to natural resources (vegetation and soils, wildlife, and special-status species) at sites within the park. Similarly, alternative A would result in impacts to cultural resources, including cultural landscapes, archeological resources, and historic resources; however, the impacts would have no adverse effects. Long-term minor to moderate adverse impacts to park operations result from alternative A. Finally, adverse impacts to health and safety would range from long-term minor to major, depending upon the GGNRA site. These adverse impacts cannot be avoided and would continue occur for the life of this plan/EIS.

Assuming compliance, unavoidable adverse impacts under alternative B would be generally reduced in duration and/or intensity as compared to alternative A. There would be fewer adverse impacts to natural resources associated with alternative B because dogs would be prohibited at some of the park sites, resulting in no impacts. There are no VSCAs proposed under alternative B. Under alternative B, there would be moderate to major adverse impacts to park operations (short term only) and visitor use and experience (long-term for visitors who would prefer to walk dogs at the park) at some park sites. An increase in the cost of park operations due to the implementation, education, and enforcement of regulations cannot be avoided under this alternative. For human health and safety, there would be short-term moderate adverse to park staff during the education and enforcement period for some park sites; all long-term impacts to human health and safety would be minor and adverse or less. For natural resources, all long-term impacts as a result of alternative B would be reduced to minor or negligible. However, with clear regulations and enforcement, adverse impacts due to dog incidents would be minimized in the future. The impacts described for alternative B assume compliance with proposed regulations (on-leash dog walking). Noncompliance could reach short-term adverse impacts, but the monitoring-based management program is designed to return impacts to a level that assumes compliance, as described in the overall impacts analysis, or to provide beneficial impacts where dog walking is reduced or eliminated.

Similar to alternative B, unavoidable adverse impacts under alternative C would be generally reduced in duration and/or intensity compared to alternative A when compliance is assumed. There are fewer adverse impacts to natural resources associated with alternative C because on-leash and off-leash areas both would be reduced under this alternative compared to alternative A, and the VSCAs would be situated in areas without sensitive species and are clearly defined. At some park sites, up to moderate adverse impacts to wildlife and vegetation and soils would occur as a result of alternative C. Under alternative C, there would be moderate to major adverse impacts to park operations (short term only) and moderate adverse impacts to visitor use and experience (long-term for some types of visitors) at some park sites. An increase in the cost of park operations due to the implementation, education, and enforcement of regulations cannot be avoided under this alternative. However, with clear regulations and enforcement, adverse impacts due to dog incidents would be minimized in the future. For human health and safety, there would be short-term moderate adverse impacts on park staff during the education and enforcement period for some park sites; all long-term impacts to human health and safety would be minor and adverse or less for all but four sites (Fort Mason, Crissy Field, Ocean Beach, and Fort Funston), where impacts would be long-term and minor to moderate. The impacts described for alternative C assume compliance with proposed regulations (on-leash dog walking). Impacts from noncompliance could reach short-term moderate adverse, but the monitoring-based management program is designed to return impacts to a level that assumes compliance, as described in the overall impacts analysis, or to provide beneficial impacts where dog walking is reduced or eliminated.

Unavoidable adverse impacts under alternative D would be generally reduced in duration and/or intensity compared to alternative A when compliance is assumed. Alternative D would have the fewest adverse impacts to natural resources because dogs would be prohibited from many of the park sites, resulting in no impacts. However, at one park site (Fort Funston), alternative D would have up to a moderate adverse impact to vegetation and soils. All other adverse impacts to natural resources would be minor or less. Under alternative D, there would be moderate to major adverse impacts to park operations (short term

only) and visitor use and experience (long term for visitors who would prefer to walk dogs at the park) at some park sites; there would be long-term minor adverse impacts to visitor use and experience (long term for some types of visitors). An increase in the cost of park operations due to the implementation, education, and enforcement of regulations cannot be avoided under this alternative. However, with clear regulations and enforcement, adverse impacts due to dog incidents would be minimized in the future. For health and safety, there would be short-term moderate adverse impacts on park staff during the education and enforcement period for some park sites; all long-term impacts to health and safety would be minor and adverse or less for all but three sites (Fort Mason, Crissy Field, and Fort Funston), where impacts would be long-term minor to moderate and adverse. The impacts described for alternative D assume compliance with proposed regulations. Noncompliance could reach short-term moderate adverse impacts, but the monitoring-based management program is designed to return impacts to a level that assumes compliance, as described in the overall impacts analysis, or to provide beneficial impacts where dog walking would be reduced or eliminated.

Unavoidable adverse impacts under alternative E would be either the same as alternative A or reduced in duration and/or intensity when compliance is assumed. As a result of alternative E, there would be long-term moderate adverse impacts to natural resources at some of the sites within the park, including vegetation and soils and wildlife. However, the majority of the adverse impacts to natural resources would be minor and not moderate. Similarly, at some sites, alternative E would result in impacts to cultural resources, including cultural landscapes, archeological resources, and historic resources, but there would be no adverse effects as defined by Section 106 of the NHPA. Under alternative E, there would be moderate to major adverse impacts to park operations (short term only) and up to moderate adverse impacts to visitor use and experience (long-term for visitors who would prefer not to have dog walking at the park) at some park sites. There would also be long-term minor adverse impacts to visitor use and Experience (long-term for some types of visitors) for the majority of the sites. An increase in the cost of park operations due to the implementation, education, and enforcement of regulations cannot be avoided under this alternative. However, with clear regulations and enforcement, adverse impacts due to dog incidents would be minimized in the future. For health and safety, there would short-term moderate adverse impacts on park staff during the education and enforcement period for some park sites. All long-term impacts to health and safety would be minor and adverse or less for all but four sites (Fort Mason, Crissy Field, Ocean Beach, and Fort Funston), where impacts would be long-term minor to moderate and adverse. The impacts described for alternative E assume compliance with proposed regulations. Impacts from noncompliance could reach short-term adverse, but the monitoring-based management program is designed to return impacts to a level that assumes compliance, as described in the overall impacts analysis, or to provide beneficial impacts where dog walking is reduced or eliminated.

Alternative F is the preferred alternative, and was developed partly in response to public comments received on the draft plan/EIS and from additional data and studies. Unavoidable adverse impacts under the preferred alternative would be generally reduced in duration and/or intensity compared to alternative A when compliance is assumed. There are fewer adverse impacts to natural resources associated with alternative F because fewer on-leash and off-leash areas would be available under this alternative compared to alternative A, and the VSCAs would be clearly defined and have specific, enforceable requirements. At two sites (Rodeo Beach and Fort Funston), up to moderate adverse impacts would occur or would continue to natural resources, including vegetation and soils and wildlife. These impacts would result from the VSCAs proposed at certain sites under the preferred alternative to address recreational needs of the visitors. All other impacts to natural resources as a result of the preferred alternative would be reduced to minor and adverse or less, including impacts to the special-status species at some of the GGNRA sites. Under the preferred alternative, there would be moderate to major adverse impacts to park operations (short term only) but all long-term impacts to park operations would be minor adverse or less. An increase in the cost of park operations due to the implementation, education, and enforcement of regulations cannot be avoided under this alternative. However, with clear regulations and enforcement,

adverse impacts due to dog incidents would be minimized in the future. Under the preferred alternative, there would be up to moderate adverse impacts to visitor use and experience (long-term for visitors who would prefer to walk dogs at the park) at some park sites; for the majority of the sites, there would be minor adverse impacts to visitor use and experience (long-term for some types of visitors). For health and safety, there would be short-term moderate adverse impacts on park staff during the education and enforcement period for some park sites. All long-term impacts to “Health and Safety” would be minor and adverse or less for all but four sites (Fort Mason, Crissy Field, Ocean Beach, and Fort Funston), where impacts would be long-term minor to moderate and adverse. The impacts described for the preferred alternative assume compliance with proposed regulations (for both on-leash and off-leash dog walking). Impacts from noncompliance could reach short-term adverse, but the monitoring-based management program is designed to return impacts to a level that assumes compliance, as described in the overall impacts analysis, or to provide beneficial impacts where dog walking is reduced or eliminated.

IRREVERSIBLE/IRRETRIEVABLE COMMITMENTS OF RESOURCES

This section discusses irreversible and irretrievable commitments of resources. A resource commitment is considered irreversible when primary or secondary impacts from its use limit future options. Irreversible commitment applies primarily to nonrenewable resources, such as minerals or cultural resources, and to those resources that are only renewable over long time spans, such as soil productivity. Irreversible commitments are those that cannot be reversed, except perhaps in the extreme long term. A resource commitment is considered irretrievable when the use or consumption of the resource is neither renewable nor recoverable for use by future generations and that, once gone, cannot be replaced. The NPS must consider if the effects of the alternatives cannot be changed or are permanent (that is, the impacts are irreversible) and must also consider if the impacts on park resources would mean that once gone, the resource could not be replaced; in other words, the resource would not be restored, replaced or otherwise retrieved (NEPA Section 102(c)(v)).

Dog use can damage resources that cannot easily be restored. Due to the rapid growth of San Francisco’s population, there is the potential that dog activities would escalate and irreversibly or irretrievably impact resources in the park. Overuse by dogs can change the character of soils, vegetation, and wildlife habitat and directly impact wildlife through disruption and injury. If these areas are affected by intense use over a long period of time, or if natural resources are particularly vulnerable to change or damage, the impacts caused by dogs can preclude restoration. There would be irreversible/irretrievable commitments of resources only under alternative A, if no action is taken to reverse the degrading of vegetation and soils, wildlife, cultural resources, visitor experience, and park operations as a result of current dog activities. Additionally, the current relaxed regulations at GGNRA, as compared to other regional parks, would continue to amplify the negative effects of dog walking on the park.

As a result of alternative A, there would be up to moderate adverse impacts to special-status wildlife species, including the mission blue butterfly, tidewater goby, California red-legged frog, and Western snowy plover. In addition, there would be up to moderate adverse impacts to special-status plant species, including sensitive coastal vegetation such as San Francisco lessingia, Presidio clarkia, Presidio (raven’s) Manzanita, marsh sandwort, and Marin dwarf-flax. Portions of Fort Funston have been heavily impacted by intense dog use, particularly where there is accelerated erosion from natural forces of the geologic resources. At this site, the impacts of dog walking are exacerbating the ongoing erosion that is caused by the weather and natural coastal processes. Due to the sensitive nature of already declining special-status wildlife species and plants, some of these species may not be restored or replaced. Alternative A also results in up to major impacts on health and safety at some sites as a result of incidents related to unruly or aggressive dogs that may place visitors and park staff at risk. Therefore, alternative A has the greatest potential to result in irreversible or irretrievable commitments of resources. Irreversible/ irretrievable commitments of resources would not occur as a result of alternatives B through F due to the

implementation of monitoring-based management program. This program has been developed to ensure protection of park resources, visitors, and staff by maintaining long-term impacts at or below acceptable levels. The NPS would prepare annual reports documenting monitoring data collected and consequent management actions, which would be made available to the public.



Consultation &
Coordination

CHAPTER 5: CONSULTATION AND COORDINATION

THE SCOPING PROCESS

The following section documents the scoping process and the public involvement activities required by *National Environmental Policy Act of 1969* (NEPA) and *Director's Order #12* for the preparation of this Final Dog Management Plan / Environmental Impact Statement (final plan/EIS).

Scoping is an effort to involve agencies and the general public in determining the scope of issues to be addressed in the environmental document. Scoping includes consultation with all interested parties or any agency with jurisdiction by law or expertise to obtain early input. Among other tasks, scoping determines important issues and eliminates issues determined to be unimportant; allocates assignments among the interdisciplinary team members and/or participating agents; identifies related projects and associated documents; identifies other permits, surveys, consultations, etc. required by other agencies, and helps to determine a schedule that allows for adequate time to prepare and distribute the environmental document for all interested parties to review before a final decision is made.

The National Park Service (NPS) divides the scoping process into two parts: internal scoping and external (public) scoping. Internal scoping for the plan/EIS involved discussions among NPS personnel regarding issues, management alternatives, compliance-based management measures, areas of the park to be analyzed, appropriate level of documentation, lead and cooperating agency roles, available references and guidance, defining the purpose and need for management actions, and other related dialogue.

INTERNAL SCOPING

Subsequent to the public comment period for the Advance Notice of Proposed Rulemaking (ANPR) in 2002, a panel of senior NPS officials from outside Golden Gate National Recreation Area (GGNRA or park) was convened to review the public comments and other technical information and make a recommendation to the Superintendent of GGNRA as to whether the park should proceed to rulemaking and comprehensive planning for pet management to address suitable locations and proper management strategies. The panel also considered whether the park should proceed with agency rulemaking or negotiated rulemaking.

In late January 2005, GGNRA park staff held an internal scoping meeting setting goals for effective public involvement activities that were implemented as previously discussed.

In 2005, concurrent with the preliminary work to establish the Negotiated Rulemaking Committee, NPS began to hold internal meetings with GGNRA park staff, consultants, and the NEPA team from the NPS Environmental Quality Division to begin drafting the purpose, need and objective statements, and conceptual alternatives. This internal scoping resulted in the notice of intent (NOI) to prepare a dog management plan/EIS in February 2006. GGNRA staff committed to continued internal scoping concurrent with the work of the Negotiated Rulemaking Committee for Dog Management, which was chartered in February 2006.

Many internal alternatives development meetings were held with park staff, consultants, and Environmental Quality Division from 2006 to early 2008 to develop, refine, and modify the plan/EIS alternatives to address risk factors and associated criteria. The planning team also took into consideration the discussions of the Negotiated Rulemaking Committee, which after a year and a half of discussions reached a limited consensus in October 2007.

Internal meetings were conducted in December 2009 to develop the compliance-based management strategy to be implemented as part of the plan/EIS (now called the monitoring-based management program).

PUBLIC INVOLVEMENT

Public scoping is the early involvement of the interested and affected public in the environmental analysis process. The public scoping process helps ensure that people have been given the opportunity to comment and contribute early in the decision-making process. For the plan/EIS, project information was distributed to individuals, agencies, and organizations early in the scoping process, and people were given opportunities to express concerns or views and identify important issues or even other alternatives.

Together, internal scoping and public involvement are essential elements of the NEPA planning process. The following sections describe the various methods used by NPS at GGNRA when conducting internal and public scoping.

As detailed in chapter 1, the implementation of the “1979 Pet Policy” resulted in increased use of the park by dog walkers and increased conflicts among users of the park, particularly due to off-leash dogs. In the late 1990s the park implemented a closure for habitat protection, enhancement of native plant communities, public safety, and impacts to geological resources. A lawsuit was then filed by the Fort Funston Dog Walkers; the resulting court ruling determined that NPS had not adequately obtained public input prior to implementing the closure (Ft. Funston Dogwalkers v. Babbit, 96 F.Supp. 2d 1021 (N.D. Cal. 2000)). A public comment period was initiated and the park received approximately 1,500 comments on the proposed closure. Following the comment period and review of public comments, the 12-acre area was closed to all visitors. Due to the attention given to management of Fort Funston during this period, the park was made aware that the voice control policy recommended by the Citizen’s Advisory Commission in 1979, and followed by the park since that time, was contrary to NPS regulations. Following review of the situation with NPS staff, the Advisory Commission held a public meeting in January 2001 to clarify the status of the 1979 Pet Policy and take public comment on a motion that the Commission should rescind the Policy as illegal and unenforceable. That meeting was attended by hundreds of people in favor of the 1979 Pet Policy and significant comment was received in support of voice control dog walking, although complaints regarding conflicts between dogs under voice control and other park users continued.

Advance Notice of Proposed Rulemaking

In January 2002, the NPS published an ANPR in the Federal Register asking for comment on potential options for future dog management at GGNRA that could include a special regulation for dog walking. The advanced notice and public meetings asked to consider a range of dog management questions and put forth two management options for comment. Two informational public meetings were held in March 2002 explaining the rulemaking process and a public meeting providing an opportunity for the public to comment was held in April 2002. After the 90-day comment period was closed, 8,580 comments had been received by the park as well as a petition with over 10,000 signatures. In August 2002, the analysis summary for the public comments was published (NAU 2002a). Additional public input was obtained between May and July 2002 through a random phone survey of 1,600 residents in the four counties surrounding GGNRA: Marin, San Francisco, San Mateo, and Alameda (NAU 2002b).

In 2004, after the park had initiated enforcement of the NPS leash regulation (36 CFR 2.15) while the planning and rulemaking efforts for future dog management were underway, citations issued for off-leash dog walking at Crissy Field were challenged. Similar to the Ft. Funston dog walking case above, the federal district court found that the NPS did not have the authority to enforce 36 CFR 2.15 requiring that

dogs be on leash in areas where off-leash dog walking had been allowed by the 1979 Pet Policy, without notice and comment rulemaking as required under 36 CFR 1.5(b) due to the controversial nature of the closure (U.S. v. Barley, 405 F.Supp. 2d 1121 (N.D. Cal. 2005)).

As a result of the public comment and other internal discussions, GGNRA chose to pursue negotiated rulemaking under the *Negotiated Rulemaking Act*. An NOI to establish the Negotiated Rulemaking Committee was published in the Federal Register on June 28, 2005. The NOI invited the public to comment on the proposal to create the committee, as well as apply for nomination or nominate another person for membership on the committee if they believed they would be significantly affected by the special regulation and that their interests would not be represented adequately by the persons identified in the NOI. Following analysis of public comments to the NOI, The Secretary of the Interior appointed the Negotiated Rulemaking Committee to represent the diverse public interests likely to be affected by a dog management plan/EIS. The committee was comprised of nine primary representatives and nine alternates from three informal caucuses. A Notice of Establishment was published in the Federal Register on February 17, 2006. The Notice of Establishment provided responses to both substantive and non-substantive comments and included a list of the committee members.

Following the NOI, the Negotiated Rulemaking Committee held seven full committee meetings and nine technical subcommittee meetings from March 2006 to October 2007. Each full committee meeting was preceded by the publication of a notice of the upcoming meeting and followed by a posting on Planning, Environment, and Public (PEPC) of the information presented at each meeting. The public was provided the opportunity to attend full committee meetings and provide input. A report summarizing the negotiated rulemaking process, products and outcomes, negotiation structures, strategies and approaches, and dynamics was prepared by the Facilitation Team of the Negotiated Rulemaking Committee (Bourne, McCracken, and Harty 2008). These documents were posted on the PEPC website.

Notice of Intent and Draft Plan/EIS

The EIS process formally began February 22, 2006, when NPS published the NOI to prepare a dog management plan and EIS and begin the public scoping process. The public was asked to submit comments within the following 30 days. However on March 29, 2006, a Notice of Extension of Comment Period was published to the Federal Register to allow the public to comment on the scope of the planning process and potential alternatives through April 24, 2006. The public was also able to comment on the Public Scoping Brochure that was posted on the NPS PEPC website on March 7, 2006 and mailed out in mid-March to the names on the park's dog management plan project mailing list. This list was developed through previous public comment periods, personal requests to park staff as well as the GGNRA general mailing list. During this scoping period, two public scoping workshops were held on April 4 and 5, 2006. Existing GGNRA dog management as well as potential alternatives, planning, and negotiated rule making process information was presented at the meeting. Park staff and NPS specialists were available to address attendee questions and provide additional information. Meeting materials, including maps and handouts that were distributed during the meeting were also posted to the PEPC website. Throughout the entire scoping period, 543 pieces of correspondence were entered into PEPC by NPS staff.

Correspondence received included direct entries by commenters into PEPC, responses on park-developed forms, emails, one fax, and hard copy letters. A summary report of public comments received during this public scoping phase was prepared in August 2006 and posted on the PEPC website September 19, 2006.

In addition to the brochure and public workshops, the public was kept up to date on the project by way of information posted on the NPS PEPC web site, <http://parkplanning.nps.gov/goga> and the park's web site www.nps.gov/goga in addition to a designated project telephone information line.

On January 14, 2011, the NPS released the draft plan/EIS to the public for review and comment. The draft plan/EIS was available for public review until May 30, 2011. During the public comment period, four public meetings were held in March 2011 for the public to submit comments on the draft plan/EIS.

Public meetings were held in Marin, San Francisco, and San Mateo Counties: in Mill Valley on March 2nd; in San Francisco on March 5th and 7th; and in Pacifica on March 9th. Three of the meetings were held in the evening from 4:00 until 8:00 p.m. and one San Francisco meeting was held during the day, from 11:00 a.m. until 4:00 p.m. The public meetings were in an open house format, with a large number of NPS staff on hand to discuss the plan with meeting attendees, answer questions, and facilitate public input on the plan. The public were able to submit their comments on the draft plan/EIS using any of the following methods:

- Electronically through the NPS PEPC website
- In person at the public meetings
- By mailing comments to the GGNRA Superintendent.

The NPS received nearly 5,000 pieces of correspondence during the comment period from over 31 states. The majority of correspondence (4,463) was submitted by California residents. Among the commenters from California, the topics that received the majority of the comments were expressions of support for, or opposition to, the draft plan/EIS; expressions of support for, or opposition to, the different alternatives at each site; concerns regarding the park visitor experience; concerns for wildlife and wildlife habitat and concerns about the health and safety of individuals and dogs. A public comment analysis report was prepared and is posted on the NPS PEPC website: <http://www.nps.gov/goga/parkmgmt/dog-management.htm>.

The draft plan/EIS was released on January 14, 2011, and was available for comment until May 30, 2011. Following the public comment period, NPS staff met in September 2011 to evaluate public comments and determine what would meet plan objectives, and update the impacts analysis and adjust the preferred alternatives, if necessary. Park staff also discussed elements of the draft plan/EIS such as the compliance-based management strategy, accessibility issues at the sites, fencing, time of use restrictions, tag (training certification) programs, and the addition of Rancho Corral de Tierra as a separate site, among other things.

Draft Plan / Supplemental EIS

In response to the comments received on the draft plan/EIS, NPS determined that a number of changes to the draft plan/EIS would be necessary to be fully responsive to public comment. Changes included the addition of new data, additional Federal Rehabilitation Act (FRA) information, changes to the impacts analysis (including additional analysis of potential redistributive effects of opening/closing areas to dog walking), changes to the compliance-based management strategy by including natural and cultural resource monitoring and removing automatic triggers and restrictions (now the monitoring-based management program), evaluation of additional fencing as a method to minimize dog walking impacts, and relatively minor changes to each site specific preferred alternative. A site that was recently transferred to GGNRA, Rancho Corral de Tierra was also added to the park sites addressed by the plan, and a range of reasonable alternatives was developed and analyzed for this site in the draft plan/ supplemental EIS (SEIS).

When significant new information or substantial changes to the proposed action occur that are relevant to environmental concerns, a supplemental EIS should be prepared. A supplemental EIS may also be prepared when the agency determines it would further the purposes of NEPA (Council on Environmental

Quality (CEQ) NEPA Regulations, 40 CFR 1502.9(c)). Preparing the draft plan/SEIS gave the NPS the opportunity to hear comments from the public on the new information before NPS issues a Notice of Proposed Rulemaking, the final plan/EIS and record of decision, and final rule.

On September 6, 2013, the NPS released the draft plan/SEIS for public review and comment. The draft plan/SEIS was available for public review until February 18, 2014 (165 days).

During the comment period, three public meetings were held in California from November 2 through 6, 2013. Meetings were held in San Francisco (November 2), Montara (November 4), and Mill Valley (November 6). Each public meeting had an open house format and lasted 4 to 5 hours. The San Francisco meeting was held during daytime hours (11:00 a.m. – 4:00 p.m.) and the Montara and Mill Valley meetings were held in the evenings (4:30 p.m. – 8:30 p.m. and 4:00 p.m. – 8:00 p.m., respectively). During the open house, the public was invited to look over the draft plan/SEIS and ask park staff questions regarding the document. NPS staff were on hand to visit with meeting participants and to answer questions. The public were able to submit their comments on the draft plan/SEIS electronically through the NPS PEPC website, in person at the public meetings, or by mailing comments to the GGNRA Superintendent.

Over 6,700 pieces of correspondence from 33 states, the District of Columbia, and Canada were received during the public comment period. Approximately 6,200 of the correspondences submitted were from California residents. Similar to the comments received on the draft plan/EIS, in a majority of the comments received from these commenters, the topics included expressions of support for, or opposition to, the draft plan/EIS; expressions of support for, or opposition to, the different alternatives at each site; concerns regarding the park visitor experience; concerns for wildlife and wildlife habitat and concerns about the health and safety of individuals and dogs. All of the comments on the draft plan/SEIS are available on the NPS PEPC website: <http://www.nps.gov/goga/parkmgmt/dog-management.htm>. Concern statements and responses are included in appendix M.

Following the release of the draft plan/SEIS in September 2013 and the public comment period, the planning team held a meeting on April 3 and 4, 2014, to discuss additional potential changes to the EIS and draft proposed rule, based on public comments. Items discussed included basic dog management planning principles, elements common to all action alternatives, elements that were considered but dismissed, and site-specific alternative elements. The planning team made some alternations to the preferred alternative based on suggestions in public comments while remaining consistent with the dog management plan objectives.

The changes to the preferred alternative identified in the April 2014 meeting were used to prepare the proposed rule, which was published in the Federal Register on February 24, 2016. Following the comment period for the proposed rule, the planning team met again on July 20, 21, and 22, 2016, to review public comments. The planning team considered public comments for each site and adjusted the preferred alternative, outlined in the Executive Summary, and impacts analysis. These edits were incorporated into this final plan/EIS.

Final Plan/EIS

Following review and analysis of comments on the draft plan/SEIS the NPS prepared a proposed rule for dog walking in GGNRA. A Notice of Proposed Rulemaking was published in the Federal Register on February 24, 2016, for special regulations for dog management in GGNRA. The comment period for the proposed rule extended until April 25, 2016. While the proposed rule is not a part of the NEPA process, the comments on the proposed rule helped the planning team modify the preferred alternative for use in this final plan/EIS as described in the “Internal Scoping” section above. Over 4,100 comments on the

proposed rule were received from 14 states and Germany. The comments were similar to those received on the draft plan/EIS and draft plan/SEIS.

AGENCY AND STAKEHOLDER CONSULTATION

During the Negotiated Rulemaking process, the Committee sent invitations to selected agencies to meet with a Technical Subcommittee to share resource and management information related to dog walking and to better inform the Committee members in regard to the many aspects of dog management.

Consultation letters regarding the draft plan/EIS were mailed on June 28, 2006, to the U.S. Fish and Wildlife Service (USFWS), U.S. Environmental Protection Agency, and National Oceanic and Atmospheric Administration National Marine Fisheries Service.

In addition to the federal agencies listed above, NPS mailed consultation scoping letters to the following state agencies: California Department of Parks and Recreation- Marin Sector; Muir Beach Community Services District; Farallones Marine Sanctuary Association; Marin Municipal Water District; and Marin County Parks and Open Space Commission. All agencies were also invited to attend a meeting with NPS at GGNRA to discuss the purpose, need, and objectives, the concurrent negotiated rulemaking process, as well as the schedule and process for preparation of the plan/EIS. Agencies were also allowed to submit written comments; responses were received from California Department of Parks and Recreation, Marin Municipal Water District, and Marin Parks and Open Space Commission (appendix L).

Comments were also received from agencies during the Agency Scoping Meeting held August 1, 2006. Agencies that participated in this meeting included representatives from the City of Sausalito, Marin County Board of Supervisors, Marin County Open Space District, USFWS, California Department of Parks and Recreation, Marin District 3, Marin Municipal Water District, Midpeninsula Regional Open Space District, Muir Beach Community Services District, East Bay Regional Park District, and GGNRA.

Issues discussed at this meeting included topics that participants felt should be addressed by the plan/EIS. These included the need for baseline data on dog and human population changes in the area. Many participants cited concerns about the availability of nearby dog parks, amenities at these sites, and the impacts of this plan on these adjacent areas. Some commenters cited the need for more off-leash areas. Additionally, meeting participants noted a need for consistency in regulations and enforcement between GGNRA and adjacent parks and areas. Other topics mentioned included the impacts of commercial dog walkers and commercial dog walking regulations, dog licensing practices, education, compliance issues and dog conflicts, liability issues, and issues with service dogs. The meeting participants also discussed the impacts of dog management on wildlife, endangered species, water quality, sensitive resources, and dog waste issues. Lastly, comments from the meeting included a need to create a definition of voice control, fire roads, and trails within the plan.

COOPERATING AGENCY

In July 2005, the Presidio Trust requested cooperating agency status with the NPS on the plan/EIS. The NPS granted the Presidio Trust cooperating agency status based on the Trust's special expertise in the Presidio Area B. Area B is the interior area of the Presidio which is managed by the Trust; Area A is the coastal Presidio lands that are managed by the NPS. The Trust's participation as a cooperating agency in the plan/EIS is thus limited to those areas adjacent to Area B. For the plan/EIS, those areas include Crissy Field, Fort Point, and Baker Beach. The letter from the Presidio Trust to the NPS requesting cooperating agency status can be found in appendix L.

ENDANGERED SPECIES ACT SECTION 7 CONSULTATION

Consultation with the USFWS and National Oceanic and Atmospheric Administration National Marine Fisheries has been implemented as required by the *Endangered Species Act* (ESA) and the *Magnuson-Stevens Fishery Conservation and Management Act*.

NPS has engaged with USFWS on the dog management issue via informal consultation throughout the project planning process. Consultation began with the initial consultation letter and agency scoping meeting. Following the agency scoping meeting, a meeting with a USFWS Senior Biologist was held on August 1, 2006. After the initial informal consultation meetings, informal consultation took place concurrently with the negotiated rulemaking committee meetings. At the request of the USFWS, a list of federally listed endangered, threatened and candidate species known to occur within the park was sent to USFWS for review (appendix H). NPS parameters developed for determining which areas of the park were to be included in the negotiated rulemaking process were also included with the list of species.

USFWS was also invited to consult during internal meetings conducted to arrive at compliance-based management strategies to be implemented as part of the dog management plan/EIS. The USFWS attended the meetings held in December 2009.

In preparation of the draft plan/EIS the park analyzed the potential impacts of five alternatives including a no-action and preferred alternative on listed aquatic and marine species occurring and potentially present within the sites and new lands of GGNRA selected for dog management. Habitat used by federally threatened or endangered species may be vulnerable to impacts from intensive use of public areas by humans and dogs. GGNRA contains more federally protected endangered and threatened species than any other unit of the national park system in continental North America. There are over 80 rare or special-status wildlife and plant species currently identified as permanent or seasonal residents of the park or dependent on park lands and waters for migration. Although habitats at GGNRA support many species with special status, only those species potentially affected by the plan/EIS were discussed in this document. Of the 80 listed wildlife and plant species, 19 are state and/or federally listed and have a detailed impacts analysis in this final plan/EIS (see table 9 in chapter 3).

The park concluded that the preferred alternative for the selected sites included in the draft plan/EIS is “not likely to adversely affect” the species listed in table 9 in chapter 3 (and associated critical habitat, when present). Therefore, the park did not believe that formal Section 7 consultation was required. Letters requesting concurrence with the parks assessment were sent to the Section 7 Coordinator at USFWS and National Oceanic and Atmospheric Administration Fisheries in December 2010. Copies of the letters can be found in appendix L. The park also noted that if the NPS amended the preferred alternative for certain areas as a result of comments received during public review of the draft plan/EIS, NPS would resubmit a revised analysis to the USFWS and National Oceanic and Atmospheric Administration Fisheries with a new recommendation based on the updated preferred alternative and associated impacts.

The USFWS and National Oceanic and Atmospheric Administration Fisheries had the opportunity to review and comment on the draft plan/EIS in January 2011. During the public comment period, the NPS received letters from the USFWS and National Oceanic and Atmospheric Administration Fisheries providing a response to earlier requests for consultation. A March 22, 2011, letter from the USFWS provided comments on the draft plan/EIS and response to the request for consultation under Section 7 of the ESA. The letter noted that the USFWS believed that the draft plan/EIS meets the goals and objectives of the project, and adequately protects federally threatened and endangered species and their habitat within the project area. The letter also noted that the preferred alternative would provide a positive beneficial impact compared to the current conditions of the dog policy at the GGNRA. A March 22, 2011, letter from National Oceanic and Atmospheric Administration Fisheries also provided comments on the

draft plan/EIS and response to a request for consultation. The letter noted that of the 22 locations reviewed in the draft plan/EIS, only four (Stinson Beach, Muir Beach, Rodeo Beach, and the Marin Headlands) would be within the known distribution of the California Central Coast coho salmon and steelhead populations. Effects from dogs outside these areas would not have adverse effects on these species. The letter also concludes that the draft plan/EIS would not have impacts at the four sites where coho salmon and steelhead populations are known.

Following the public comment period on the draft plan/EIS, the preferred alternatives for some of the park sites were amended. In order to address public comments, the supplemental impact analysis for all alternatives was also updated for several of the impact topics. Therefore, the park sent letters dated September 5, 2013, with the draft plan/SEIS to the USFWS and National Oceanic and Atmospheric Administration Fisheries for review and concurrence with the park's findings. Following their review of the draft plan/SEIS, the USFWS sent a letter to the park dated July 18, 2014, stating that the draft plan/SEIS adequately addresses the impacts on federally listed species. The National Oceanic and Atmospheric Administration Fisheries responded in a letter dated November 11, 2013. National Oceanic and Atmospheric Administration Fisheries recognized that the only change in the preferred alternative that could impact coho or steelhead salmon would be dog walking activities at the Rancho Corral de Tierra; however, National Oceanic and Atmospheric Administration Fisheries concurred with the conclusion that the revised preferred alternative is not likely to adversely affect these two species. The NPS sent a letter to National Oceanic and Atmospheric Administration Fisheries on January 29, 2014, to clarify a detail for Muir Beach that was absent from the previous letter and asked for additional review and concurrence with the findings of not likely to adversely affect coho or steelhead salmon. National Oceanic and Atmospheric Administration Fisheries responded with a letter dated May 5, 2014, stating concurrence.

NPS is currently consulting with USFWS on the additional proposed changes in the final plan/EIS, with a recommendation that the changes are also "not likely to adversely affect" listed species or critical habitat. NPS will not take actions that could result in an irreversible or irretrievable commitment of resources, which would have the effect of foreclosing the formulation or implementation of any reasonable and prudent alternatives until consultation is completed.

SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT CONSULTATION

Federal agencies are responsible for the impact of their actions on historic properties. Cultural resources, (archeological, architectural, and historic) are protected by Section 106 of the *National Historic Preservation Act of 1966* (NHPA), as amended (16 USC 270, et seq.).

In accordance with 36 CFR 800.4(a)(1) the area of potential effects (APE) was established by the park. Seven non-contiguous areas within San Francisco and Marin Counties were defined as part of the overall APE. As dog activity in an area can negatively affect sensitive cultural resources (i.e., trampling, digging, etc.), the APE boundaries were delineated by using the presence of dogs in plan areas where historic properties exist. In other words, where dogs are allowed in proximity to the locations of historic properties, or allowances for dogs are proposed for the future, these areas are included within the APE. The locations of historic properties were identified through review of GGNRA records by its cultural resource staff.

Much of the area included in the APE is encompassed within large historic district boundaries including the Fort Miley Military Reservation; the Presidio National Historic Landmark (NHL); the Fort Mason Historic District; and the Forts Baker, Barry and Cronkhite Historic District. In addition, specific historic structures located within these larger districts, as well as at Fort Funston, were analyzed including permanent seacoast fortifications and their integral earthworks and Crissy Airfield. Three prehistoric

archeological sites were also included in the analysis (appendix I contains a list of historic properties analyzed in the plan/EIS). All resources are either listed in or eligible for listing in the National Register of Historic Places (NRHP) and are briefly described below.

Archeological Resources

Three archeological resources that could be affected by the plan/EIS are indigenous in nature. One is located in Marin County; two are located in San Francisco County. They are characterized in general as representing subsistence activities in the area such as food procurement and preparation, tool production, etc.

Historic Structures

Historic structures with the potential to be affected by the plan include

- Sixteen permanent seacoast fortifications and their integral earthworks (sometimes referred to as batteries) primarily associated with Fort Baker within the Forts Baker, Barry, and Cronkhite Historic District; Fort Scott and Fort Point within the Presidio NHL; Fort Mason Historic District; and Fort Miley Military Reservation
- Crissy Airfield, established in 1919, functioned as the center of West Coast military aviation operations from 1921 to 1936.

Historic Districts

Historic districts included in the analysis are related to the military history of the park, which dates from Spanish settlement in 1776 through the 20th century and include

- The Presidio NHL
- The Fort Mason Historic District
- The Fort Miley Military Reservation
- The Forts Baker, Barry, and Cronkhite Historic District including Battery Cavallo
- Rancho Corral de Tierra.

Finding of Effect

NEPA analysis and Section 106 findings have been completed for all cultural resources (three archeological resources; 17 historic structures; five historic districts) that could be potentially affected as a result of implementation of this final plan/EIS. Application of the Criteria of Adverse Effect (36 CFR 800.5) has resulted in the determination that the preferred alternative would have an effect on historic properties within the APE, but the effect is “not adverse.”

Section 106 Consultation

The park initiated NHPA Section 106 consultation under 36 CFR 800 for the plan/EIS as documented in a letter to the State Historic Preservation Officer (SHPO) in November 2010. In this letter the park stated the preliminary determination that the project will have an effect on historic properties within the APE, but the effect is “not adverse.” The park would seek concurrence with the final finding of effect when the

alternative for implementation is selected. A copy of the Section 106 consultation letter can be found in appendix L.

The SHPO had the opportunity to review and comment on the draft plan/EIS in January 2011. A letter was received on February 4, 2011 from the California Office of Historic Preservation. The letter provided comments on the draft plan/EIS and response to the NPS request for consultation under Section 106 of the NHPA. The letter provided concurrence that the action qualified as an undertaking, that the APE is sufficient, and that GGNRA should plan to continue consultation on the assessment of effects following the public comment period on the draft plan/EIS. The letter questioned how the draft plan/EIS intended to account for the potential effects to unanticipated historic properties, and how the plan intended to treat these properties.

Following the public comment period, the preferred alternatives for some sites were amended. The park prepared the draft plan/SEIS, which incorporated potential effects on unanticipated historic properties. A letter was sent to the SHPO with the draft plan/SEIS in September 2013, describing the changes that occurred between the draft plan/EIS and the draft plan/SEIS, describing the findings of effects for cultural resources, and asking for concurrence on these findings. The SHPO reviewed the draft plan/SEIS and sent a letter to the park dated October 28, 2013. In this letter, the SHPO stated that it concurs with a finding of “no adverse effect” for the dog management plan. The concurrence letter also noted that “in the event that NPS decides to install additional fencing to protect resources, that decision should trigger consultation with the SHPO given the ground disturbance involved.” In this final plan/EIS, NPS is proposing additional fencing on Crissy Field, along the east and west portions of the Central Beach voice and sight control area (VSCA), at Fort Mason, in the proposed VSCA area to protect dogs from two busy adjacent streets, and in some strategic locations along the Kaashi Way trail to better protect sensitive species in the area where there is not thick underbrush acting as a deterrent. The exact location, type, and placement of fencing have not yet been determined, but before implementation or ground-disturbing activities NPS will again consult with the SHPO.

TRIBAL CONSULTATION

Executive Order 13175, federal regulations (36 CFR 800.2) implementing Section 106 of the National Historic Preservation Act of 1966, as amended, and NPS *Management Policies 2006* all require consultation with federally recognized American Indian tribes on a government-to-government basis, and NPS *Management Policies 2006* also requires consultation with other traditionally associated groups. GGNRA has previously informed the Federated Indians of Graton Rancheria and Ohlone Representatives about this project through the park’s newsletter, Native Update, and through copies of correspondence between the NPS and the SHPO, opening consultation under Section 106 of the National Historic Preservation Act of 1966, as amended. Letters were sent with the draft plan/SEIS to the representatives of the tribal governments again offering government-to-government consultation (appendix L). Similarly, letters will be sent to tribal government representatives with the final plan/EIS. Tribal governments have also been included in Section 106 consultation with the SHPO. NPS has not received comments from the tribes.

Tribal governments consulted include

- Amah Mutsun Band of Ohlone Costanoan Indians
- Amah Mutsun Tribal Band
- Costanoan Ohlone Rumsen-Mutsun Tribe
- Costanoan-Rumsen Carmel Tribe

- Federated Indians of Graton Rancheria
- Indian Canyon Mutsun Band of Costanoan
- Muwekma Ohlone Indian Tribe
- Ohlone/Costanoan-Esselen Nation
- The Ohlone Indian Tribe.

COASTAL ZONE MANAGEMENT ACT CONSISTENCY

The *Coastal Zone Management Act of 1972* was enacted by Congress to encourage states to protect, preserve, develop, and, when possible, restore or enhance valuable natural coastal resources. Participation in the act is a voluntary partnership between the federal government and the U.S. coastal states. If a proposed project is a federal action requiring NEPA review and the project is located in the coastal zone, then a *Coastal Zone Management Act* consistency certification must be prepared.

The California Coastal program was approved as part of a National Coastal Zone Management Program authorized by the *Coastal Zone Management Act of 1972*. The California Coastal Commission was established through the adoption of the *California Coastal Act of 1976* and is an independent state agency whose mission is to: “protect, conserve, restore, and enhance environmental and human-based resources of the California coast and ocean for environmentally sustainable and prudent use by current and future generations” (CCC 2010, 1). In keeping with their mission, the California Coastal Commission is an independent state agency responsible for planning and review of activities within the coastal zone through specific policies outlined in the *California Coastal Act*, such as shoreline public access and recreation, lower cost visitor accommodations, terrestrial and marine habitat protection, visual resources, landform alteration, agricultural lands, commercial fisheries, industrial uses, water quality, offshore oil and gas development, transportation, development design, power plants, ports, and public works” (CCC 2010, 1). Although federally owned lands within the coastal zone are exempt from the act, federal agencies are encouraged to coordinate and cooperate with the State to meet the purposes of the *California Coastal Act* and be consistent with the policies of the *California Coastal Act*.

Based on the analysis within this final plan/EIS, the preferred alternative should, over the long term, provide beneficial effects to coastal resources by: (1) reducing opportunities for soil disturbance and erosion that could impact water quality and aquatic habitats; (2) protect and conserve sensitive species and habitats by providing access to sensitive areas; (3) require control of dogs by owners at all times; and (4) increase compliance with waste removal.

Based on the anticipated benefits to coastal resources the NPS is confident the preferred alternative presented in this dog management plan is consistent with the *Coastal Zone Management Act* and therefore does not require a consistency determination. A letter stating the parks assessment was sent to the Federal Consistency Coordinator at the California Coastal Commission in December 2010. A letter was sent to the California Coastal Commission with the draft plan/SEIS. A copy of these letters can be found in appendix L. The California Coastal Commission also had the opportunity to review and comment on the draft plan/EIS in January 2011 and the draft plan/SEIS in September 2013, respectively. No response was received from the California Coastal Commission regarding consistency with the act.

Since some of the sites within this plan/EIS are within the San Francisco Bay (i.e., Crissy Field) and likely fall under the ‘park priority use areas’ of the San Francisco Bay Plan, a letter stating the parks assessment was also sent to the San Francisco Bay Conservation and Development Commission in December 2010. Based on the anticipated benefits to coastal resources the park is confident the preferred alternative is consistent with the *Coastal Zone Management Act* and the San Francisco Bay Plan. A copy

of the letter can be found in appendix L. The San Francisco Bay Conservation and Development Commission also had the opportunity to review and comment on the draft plan/EIS in January 2011 and the draft plan/SEIS in September 2013, respectively, but no comments were received from that agency.

LIST OF PRIMARY PREPARERS

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ELECTED OFFICIALS AND COMMITTEES

- Office of Senator Barbara Boxer
- Office of Senator Dianne Feinstein
- Office of Representative Nancy Pelosi
- Office of Representative Jackie Speier
- Office of Representative Jared Huffman
- United States House of Representatives Committee on Resources
- Office of Mayor Edwin M. Lee

FEDERAL AGENCIES

- USGS Western Ecological Research Center, Biological Resources Discipline
- Gulf of The Farallones National Marine Sanctuary
- National Oceanic and Atmospheric Administration
- National Park Service
- Presidio Trust (Cooperating Agency)
- U.S. Army Corps of Engineers
- U.S. Coast Guard - Station Golden Gate
- U.S. Department of Interior Office of the Solicitor
 - San Francisco Regional Field Office
- U.S. Department of Justice
 - Environment and Natural Resources Division
 - California Northern District U.S. Attorneys Office
- U.S. Environmental Protection Agency
 - Region 9
 - Washington Office
- U.S. Fish & Wildlife Service
 - Sector 7
- U.S. NOAA – National Marine Fisheries Service

STATE AND LOCAL AGENCIES

- California Office of Historic Preservation
- State of California, Department of Parks and Recreation
- California Coastal Commission
- State of California Department of Fish and Game
- San Mateo County Parks Department
- San Mateo Animal Care and Control Office
- Marin County Animal Control Officer
- Marin Municipal Water District
- Marin County Parks and Open Space Commission
- San Francisco Bay Conservation and Development Commission
- San Francisco Animal Care and Control
- SF Recreation and Parks Department

FEDERALLY RECOGNIZED INDIAN TRIBES

- Federated Indians of Graton Rancheria
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Glossary

GLOSSARY

1979 Pet Policy—A policy developed by the Citizens’ Advisory Commission which provided guidance in the form of suitable locations for on-leash dog walking areas and off leash or “voice control” areas in lands owned and managed by GGNRA, even though it did not abide by the federal regulation regarding dog walking in national parks (36 CFR 2.15).

1995 Service-wide Programmatic Agreement—An agreement between the NPS, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers, which set forth the stipulations in accordance with which the NPS was to carry out its Section 106 responsibilities for management of the parks system.

36 CFR Part 7, Final Rule—This rulemaking provides temporary protection for western snowy plovers in the Crissy Field and Ocean Beach protection areas until a permanent determination is made through the dog management planning process for the entire park.

abundance—Relative degree of plentifulness. For contrast, see **diversity**.

accelerated erosion—An increased rate of soil erosion caused by humans or human-related factors (such as dogs). See **soil erosion**.

adaptability—Capacity to become modified based on changing circumstances.

adherence—Compliance (as with NPS leash requirements).

Advance Notice of Proposed Rulemaking (ANPR)—Published in the Federal Register in January 2002, the GGNRA dog management ANPR requested public comment on potential alternatives for future dog management in GGNRA. Suggestions received could then be incorporated into the plan/EIS, proposed rule, and final rule. Starting from the date of publication of the ANPR in January 2002 and extending for 90 days, the public was asked to comment on options, questions, and ideas for the proposed rule for future dog management in the GGNRA or to present options of their own.

aestivate—To pass the summer in a state of torpor; similar to hibernate (in winter). On the California coast, federally and state-endangered San Francisco garter snakes hibernate during the winter, and adults may aestivate in rodent burrows during months when ponds dry.

aggressive dogs—Most of the organized groups that support off leash dog recreation at GGNRA sites advocate responsible dog ownership, which includes leashing aggressive dogs. Encounters with aggressive dogs can cause injury and adversely affect visitor experience at the park.

Alameda Wildlife Refuge—The proposed Alameda National Wildlife Refuge, located at the western end of Alameda, is home to one of the California least tern’s most critical nesting colonies. The tern colony at the old naval base has grown from 10 nests in 1976 to 440 in 2004. Since the Refuge is the California least tern’s nearest breeding site, this species is not included in the plan/EIS for further analysis.

amphibian egg mass—Group of eggs laid for fertilization, consisting of clumps of gelatinous envelopes (each jelly-like envelope forming an egg capsule).

amphibian—Any of a class (Amphibia) of cold-blooded vertebrates intermediate between fishes and reptiles and having gilled aquatic young and air-breathing adults.

anadromous fish—Fish living mostly in the ocean and breeding in freshwater (e.g., steelhead trout, coho salmon). The ESA and the Organic Act require special protection for the anadromous fish found in areas of GGNRA.

Animal Care and Control Agreement—As well as a permit, commercial dog walkers must agree to comply with the Animal Care and Control Guidelines in order to be recognized as a professional dog walker in San Francisco (county and city).

APE—See **Area of Potential Effects (APE)**.

aquatic environment—Marine, estuarine, or freshwater resources that support animal and plant species and can be affected by dog waste or trampling.

aquatic invertebrate—An organism without a spine (insect, crustacean, etc.) that lives for all or most of its life in a body of water. Often of special concern to conservationists because of the fragility of its environment.

aquatic resources—Waterbodies and the flora and fauna within them.

aquatic vegetation—Plants that have adapted to living in or on aquatic environments. Because living on or under the water surface requires numerous special adaptations, aquatic plants can only grow in water or permanently saturated soil.

archeological resources—Material remains of past human life and activities, and the records documenting the scientific analysis of these remains. The three archeological resources in San Francisco and Marin counties addressed in this plan are indigenous in nature and are either listed on or considered eligible for the NRHP.

Area A / Area B—The Presidio of San Francisco is divided into two areas known as Area A and Area B. The interior 80 percent of the Presidio lands are referred to as Area B and include approximately 1,170 acres and are under the management of the Presidio Trust. The remaining, coastal portions of the Presidio are known as Area A and are under the management of the NPS. See **Presidio of San Francisco**.

Area of Potential Effects (APE)—The “geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties” (36 CFR 800.16[d]). The APE at GGNRA was determined prior to resource analysis and includes multiple areas in both Marin and San Francisco counties.

armature—A structure for offense or defense. Armatures constitute one of the internal hardened features masked by the battery earthworks.

artifact—An object created by humans, usually for a practical purpose, that remains from a particular period. Numerous prehistoric shell mounds and other artifacts have been identified in coastline areas from prehistoric Native American villages.

artillery emplacement—A prepared position for heavy, usually large-bore, military weaponry. Artillery emplacements constitute one of the internal hardened features masked by the battery earthworks.

Bald and Golden Eagle Protection Act—The Act, enacted for bald eagles in 1940 and amended in 1962 to include golden eagles, prohibits the take, transport, sale, barter, trade, import and export, and

possession of eagles, making it illegal for anyone to collect eagles and eagle parts, nests, or eggs without a permit.

bare rock escarpments—Long rocky cliffs or steep rocky slopes with limited vegetation separating comparatively level areas. These make up Rock-outcrop-Orthents complex at 30 to 75 percent slopes, and are found at many sites in GGNRA.

Barnabe soils—Shallow, well-drained soils that are found on hills and mountainous uplands and have a slope of 9 to 75 percent.

barracks—Housing for soldiers/airmen. Crissy Airfield is the only Air Coast Defense Station airfield in the country that retains the majority of its original buildings, including the barracks.

basalt—A dark grey to black igneous rock. See **igneous rock**.

battery earthworks—Earth placed over and around fortifications of brick, stone, and concrete (batteries) that were used as defensive structures, with features and equipment necessary to support a variety of artillery. Designed not only to absorb artillery impact but also to camouflage fortifications from the air and sea.

bedrock parent material—Bedrock is the solid rock that underlies all soil, and the material from which soil forms is called its parent material. When bedrock is worn or weathered away and creates soil, bedrock is the parent material that forms this residual soil. As a result of grinding movement along the many faults throughout GGNRA, bedrock parent materials within the park are jumbled, and a mixture of sandstone, basalt, and metamorphic rocks is present.

benthic fauna—Vertebrate and invertebrate organisms that inhabit the bottom of a body of water. These species are vulnerable to disturbance by trampling and fouling of their habitat by dogs.

benthic invertebrate—An organism without a spine that lives in the bottom of a body of water. Includes crustaceans, flatworms, and other species, many of which are vital food sources for birds. See **benthic fauna**.

biological diversity—Also called biodiversity. Refers to the variation of life forms found within a particular ecosystem. Often used as a measure of the health of biological systems. GGNRA is recognized as one of the most biologically diverse areas on the California coast.

biosphere—The complex formed by living organisms together with their environment. See **Golden Gate Biosphere Reserve**.

brackish lagoons—A brackish lagoon is a body of comparatively shallow water separated from the deeper sea by a shallow or exposed barrier beach, sandbank of marine origin, coral reef, or similar feature. Its water has more salinity than freshwater, but not as much as seawater.

breeding burrows—The burrows that tidewater goby males dig for egg-laying and fertilizing and for hatching their young (USFWS Tidewater Goby Recovery Plan). These burrows are dug in lagoons in the spring after they have closed to the ocean, and are susceptible to being crushed by dogs.

buried cultural resources—Historic or prehistoric structures that have not yet been unearthed. These buried resources can be damaged by being dug up by dogs or by the accelerated erosion that may occur due to dog- and human-related activity; such damage is considered unlikely within GGNRA.

California Department of Fish and Wildlife (CDFW)—A California government department under the California Natural Resources Agency. The CDFW manages and protects the state’s fish, wildlife, plant resources, and native habitats, maintaining an informal list of plant and wildlife species of special concern.

California Endangered Species Act (ESA)—The California ESA is intended to provide additional protection to threatened and endangered species in California. The state ESA does not supersede the federal ESA, but operates in conjunction with it.

California Fish and Game Code—One of the 29 codes codifying the California statutes enacted by the California State Legislature and the governor. Although federal agencies are not required to comply with California’s Fish and Game Code, the NPS makes every reasonable effort to conduct its actions in a manner consistent with relevant state laws and regulations.

California Native Plant Society (CNPS)—A not-for-profit organization formed in 1965 that seeks to increase understanding of California’s native flora and to preserve that flora. The CNPS developed the *Inventary of Rare and Endangered Vascular Plants of California* which is published every 3 to 5 years and is used by the state and federal government for conservation planning.

canids—Any of the family Canidae of carnivorous animals that includes domestic dogs, wolves, coyotes, and foxes. Alternative C would reduce the possibility of interactions between off-leash dogs and other canids in the area, such as coyotes.

canine distemper virus—An acute, highly contagious disease affecting domestic and wild carnivores. The disease is caused by a paramyxovirus, and is usually fatal if untreated. Transmission can easily occur between dogs and wild carnivores upon casual contact, even just sniffing excrement.

cantonment—Quarters for troops (usually temporary). In Marin County, there are field fortifications associated with Fort Cronkhite north of the cantonment area.

cellulose—A polysaccharide of glucose units that constitutes a large part of the cell walls of plants. Dissolved oxygen in park waterbodies is a concern in the fall because the leaves that fall in the water are coated by a microbial biofilm of bacteria and fungi, which use oxygen in their metabolic cycles as they feed on the cellulose in the leaves.

channelization—The channelization of a waterway by straightening it (also usually by dredging/widening the natural streambed and/or building up high embankments on either side). Prevents the water from changing directions randomly, reducing net erosion. However, it can also cause wetland loss; downstream flooding; and loss of fish diversity and abundance because of reduction in habitat, elimination of riffles and pools, greater fluctuation of stream levels and water temperature, and shifting substrates. At GGNRA, the habitats of the tidewater goby and the bank swallow are both threatened by channelization.

chaparral—An ecological community consisting of shrubby, drought-resistant plants found primarily in California and the northern portion of the Baja California peninsula. Chaparral within the GGNRA provides habitat for federally endangered plant species.

chert—A resistant rock material found in the Franciscan Complex, resembling flint and consisting mostly of fibrous chalcedony. See **Mélange areas**.

Citizens' Advisory Commission—Coordinated public involvement in the park. Its charter stated that the commission could make recommendations on various policy issues from the citizens' point of view, in compliance with NPS policies.

clay loam—Soil containing a relatively high percentage of clay, about the same amount of sand, and the remaining portion silt.

cliff erosion—The wearing away of cliff faces due to natural and human- and dog-caused effects. A portion of Fort Funston is restricted to both visitors and dogs in order to prevent cliff erosion and to protect bank swallow habitat and native plant communities.

closed-cone coniferous forest—One of the habitats where the federally and state-endangered Hickman's potentilla can be found.

Coast Miwoks—The second largest group of Miwok Native American people. The Coast Miwoks inhabited the general area of modern Marin County and southern Sonoma County in northern California, from the Golden Gate north to Duncans Point and eastward to Sonoma Creek.

coastal batteries—Artillery emplacements along the California coast. The historic structures analyzed in the plan/EIS include battery earthworks and other field fortifications associated with a number of coastal batteries within Marin and San Francisco counties.

Coastal Zone Management Act (CZMA)—A federal statute which encourages state, local, regional, and federal agencies to cooperate when implementing their coastal zone programs.

Code of Federal Regulations—The codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the federal government.

coho salmon—A federally threatened salmonid inhabiting the streams and lagoons in GGNRA.

coliform—Of or related to the rod-shaped bacteria (as *E. coli*) normally present in the intestine. See ***E. coli***.

colonial nesting—Refers to large aggregations of individuals of one or more species of bird that nest in close proximity at a particular location. Most colonial nesters tend to be birds that feed in wetland habitats, such as seabirds, although colonially nesting birds also include groups such as the swifts, swallows, and martins.

commercial dog walking—An activity where an individual or business entity is compensated for walking dogs. Commercial dog walking is only allowed in certain areas of GGNRA; in many areas, there are restrictions on the number of dogs allowed per dog walker and permit requirements for commercial dog walkers. Commercial dog walking be prohibited throughout GGNRA only under alternative D; all other alternatives would allow commercial dog walking.

concession revenues—Monies received from businesses in return for permission to operate on park lands. One source of GGNRA non-operational funding.

conditional use permit—Required for commercial dog walkers in Marin County Open Space. Allows up to six dogs to be walked, with three of them on leash at all times.

contiguous habitat—Habitat that is suitable to support the life needs of a species that is distributed continuously or nearly continuously across the landscape. Particularly important for those species who have difficulty crossing from one chunk of habitat to another; e.g., the federally listed mission blue butterfly, which is found in GGNRA.

contravention—Violation (as the 1979 pet policy violated the terms of NPS policy). See **1979 Pet Policy**.

Council on Environmental Quality—As provided by NEPA, the Council on Environmental Quality (CEQ) was established in the executive office of the President. CEQ is composed of three members appointed by the President with the advice and consent of the Senate. The council is to “analyze and interpret environmental trends and information of all kinds; to appraise programs and activities of the Federal Government in the light of the policy set forth in subchapter I of this chapter; to be conscious of and responsive to the environmental, economic, social, esthetic, and cultural needs and interests of the Nation; and to formulate and recommend national policies to promote the improvement of the quality of the environment.”

Cronkhite soils—Deep, moderately well-drained soils that are found on hills with slopes of 9 to 75 percent.

cultural landscapes—Combinations of elements including vegetation, earthworks, roads, paths, buildings, views, and other man-made and natural features that truly represent or suggest a particular event or time period.

cultural resource specialist—Cultural resource specialists monitor projects and perform research to ensure the stabilization, preservation, and restoration of historic structures and landscapes and archeological resources.

cultural resources—Archeological, traditional, and built environment resources, including cultural landscapes. In GGNRA, many of the cultural resources are centered around the historic airfield at Crissy Field.

Department of Commerce—The Cabinet department of the U.S. government concerned with promoting economic growth. The mission of the department is to “promote job creation and improved living standards for all Americans by creating an infrastructure that promotes economic growth, technological competitiveness, and sustainable development.” It administers NOAA and NMFS. See **National Oceanic and Atmospheric Association (NOAA)** and **National Marine Fisheries Service (NMFS)**.

depletable resources—Nonrenewable resources. Natural resources that exist in a fixed amount or are consumed much faster than nature can re-create them.

designated on-leash areas—Specific areas identified as open to on-leash dog walking, as opposed to VSCAs; under all action alternatives (B through F), all areas of the park not designated as on-leash or under voice and sight control areas (VSCAs) would be closed to dogs. See **voice and sight control areas (VSCAs)**.

deterrence—Inhibition from an unlawful act through fear of punishment. Along with education, a method of gaining compliance with leash laws in GGNRA.

detract—Take away from; diminish. Some visitors to GGNRA find that off-leash dogs detract from their experience of the park.

Director's Order (DO)—A source of detailed written guidance issued by the NPS director to help managers make day-to-day decisions. Director's Orders supplement and may amend Management Policies. See **Management Policies**.

dislocating—Moving or removing a species from its habitat (e.g., detaching amphibian egg masses from their position in the water).

dissolved oxygen—Oxygen saturation; a relative measure of the amount of oxygen dissolved or carried in water.

diversity—See **biological diversity**.

dog management—The policies governing the permissible use of GGNRA lands by dogs and dog walkers.

Dog Management Information line—The park maintains a Dog Management Information line with the current status of the dog management process, where the public can leave messages for park staff. The line is monitored and calls are responded to daily.

dog management regulations—Regulations governing the permissible use of GGNRA lands by dogs and dog walkers. It was suggested during the negotiated rulemaking discussion and the federal panel recommendations that dog walking groups take an active part in disseminating accurate information to constituents regarding dog management regulations.

dog park—A facility set aside for dogs to exercise and play off leash in a controlled environment under the supervision of their owners.

dog run—An enclosed area where dogs can stay without a leash. It is usually gated and locked so that other animals cannot enter and so that dogs cannot escape. See **dog park**.

dog urination—May affect some cultural resources; for example, it may have detrimental effects on character-defining features, such as vegetation, associated with historic districts and structures.

dog voice-and-sight video and tag program—A video education and tag program required of all dog “guardians” wishing to use voice-and-sight control privileges in the City of Boulder, Colorado. Upon completion of the course, high-visibility tags are worn by dogs under voice and sight control.

dog walkers—Private (individual) and commercial dog walkers.

dog walking—The act of walking with or engaging in any other activity with a dog where the dog is present on lands or waters administered by the NPS in the 22 locations addressed by this plan. Persons whose dogs are fully confined in a vehicle are not considered to be engaged in dog walking.

dog/human technical cliff rescues—Technical rescue is the application of special knowledge, skills, and equipment to safely resolve unique or complex rescue situations; e.g., vertical rescue situations. Alternative B would require on-leash dog walking on the Fort Funston trails that have a high incidence of dog/human technical cliff rescues, reducing risks to dogs and dog owners due to the hazardous cliffs.

dog walker compliance—Compliance of dog owners and commercial dog walkers with posted and published leash regulations.

dog walking groups—Citizens' interest groups formed to promote dog walking access.

dog walking regulation—A federal rule promulgated pursuant to the Administrative Procedures Act, governing the use of GGNRA lands by dogs and dog owners.

dune ponds—Generally shallow ponds, often ephemeral in nature. Some are formed when sand is blown from low-lying areas, while others form in swales between small former spits. These areas became water filled when the groundwater is lifted by the saltwater beneath it. Most are not more than two or three feet deep.

E. coli—Causes diarrhea and abdominal gas; has been the source of disease outbreaks in several states. An indicator organism often used to determine water purity (through coliform bacteria testing), its presence indicates fecal contamination. See **enterococcus**.

earthflow—A downslope viscous flow of fine-grained materials that have been saturated with water and are moving under the pull of gravity. An intermediate type of mass wasting, between downhill creep and mudflow.

earthworks—An embankment or other construction made of earth, especially one used as a field fortification. The earthworks at Battery Townsend in the Marin Headlands constitute one of GGNRA's important cultural resources.

ecologist—One who studies the interrelationship of organisms and their environment. The ecologists at GGNRA fulfill key roles in natural resource management activities, including tracking dog-related complaints and monitoring restoration areas, fencing, and water quality.

ecology—The pattern of relations between organisms and their environment.

ecosystem—The complex of a community of organisms and its environment functioning as an ecological unit.

educational outreach—Efforts by NPS staff to educate the public regarding dog walking rules. Educational outreach can be accomplished using pamphlets, newsletters, signs, law enforcement and other techniques.

egrets—Wading birds, usually white, that bear long plumes during the mating season. The long feathers distinguish egrets from herons, a distinction based more on appearance than on biology. Although egrets have the same build as the larger herons, they tend to be smaller. See **herons**.

emergent aquatic vegetation—Emergent aquatic plants are rooted in the lake bottom, but their leaves and stems extend out of the water. This vegetation along the edge of watercourses and wetlands provides critical habitat for some listed species, and disturbance of this vegetation from dogs could compromise its value to wildlife. See **aquatic vegetation**.

encroachment—Invasion of natural habitat by non-native, invasive vegetation.

Endangered Species Act of 1973 (ESA)—Provides for the conservation of threatened and endangered species of fish, wildlife and plants, and the critical habitat upon which threatened and endangered species depend.

endangered species—Any species that is in danger of extinction throughout all or a significant portion of its range, other than pests whose protection would present a risk to man (ESA of 1973, Public Law 93–205).

enterococcus—A genus of lactic acid bacteria commonly found in intestines. In bodies of water, the acceptable level of enterococcal contamination is very low, and in 2004, *Enterococcus* spp. took the place of fecal coliform as the new federal standard for water quality at public beaches. See **coliform**.

estuarine fauna—Organisms that live or forage in estuaries. Estuarine fauna in GGNRA include the coho salmon, steelhead trout, and tidewater goby, all of which can be affected by increased turbidity, increased nutrients, and trampling of vegetation and benthic invertebrates from dog play in the water.

estuarine—Of, formed in, or relating to an estuary (a water passage where a tide meets a river current; especially an arm of the sea at the lower end of a river).

ethnographic resources—Resources that would inform the scientific description of the customs of individual peoples and cultures in the GGNRA area, or such descriptive works themselves. It is not expected that ethnographic resources will be affected by this plan and they are not included for analysis in the plan/EIS.

eutrophication—An increase in the concentration of chemical nutrients in an ecosystem (often caused by humans or dogs) to an extent that increases the production of organic compounds by photosynthesis. Depending on the degree of eutrophication, subsequent negative environmental effects such as oxygen depletion and severe reductions in water quality, fish, and other animal populations may occur. Rodeo Lagoon in GGNRA exhibits signs of eutrophication.

exclosure fencing—Fencing around an area (e.g., a western snowy plover nesting area) to exclude humans, dogs, and other animals in order to protect the species within the exclosure.

Executive Order 11988, Floodplain Management—States that an action class and applicable regulatory floodplain must be identified for any proposed action that may be harmed by flooding or has the potential for adverse floodplain impacts. Applying the guidelines in the NPS Procedural Manual 77-2: Floodplain Management (NPS 2003b), dog management actions are not expected to affect GGNRA's floodplains or to be affected by possible floods.

exotic plant seeds—Non-native and/or invasive plant seeds. Dogs can spread non-native plant seeds brought in from outside the park or spread plant seeds from one area of the park to another through shedding and waste elimination, leading to native plants being crowded out by non-native, invasive plants.

exotic weeds—Non-native, invasive plant, which can crowd out native plants that may have important habitat value to other native species. See **exotic plant seeds**.

Facilitation Team of the Negotiated Rulemaking Committee—A team contracted through the Institute for Environmental Conflict Resolution that facilitated the negotiated rulemaking meetings, prepared multiple meeting reports, and a final report summarizing the negotiated rulemaking process, products, and outcomes; negotiation structures, strategies, and approaches; and dynamics following the Committee's meetings between March 2006 and October 2007.

fault—A fracture in the Earth's crust accompanied by a displacement of one side of the fracture with respect to the other. Large faults are the result of differential or shear motion, and active fault zones are

the causal locations of most earthquakes. The major fault in the GGNRA area is the San Andreas Fault, but there are also many smaller faults in the area.

feces—Eliminated animal waste. Dog feces can alter the chemical makeup of habitats such as estuarine waters and can distribute plant seeds from outside the park or from one area to another. Disease can also be spread directly or indirectly through dog and wild animal feces. See **exotic plant seeds, E. coli**.

Federal Register—Published by the Office of the Federal Register, National Archives and Records Administration (NARA), the Federal Register is the official daily publication for rules, proposed rules, and notices of federal agencies and organizations, as well as executive orders and other presidential documents (<http://www.gpoaccess.gov/fr/>).

Federal Rehabilitation Act (FRA) accessible—Meeting the requirements set forth in 29 USC§794. The newly restored Coastal Trail, a highly used area at GGNRA, is FRA accessible.

federally listed endangered species—An endangered species is one that is in danger of extinction throughout all or a significant portion of its range. Before a species can receive protection under the ESA, it must first be placed on the federal list of endangered species. All actions leading up to and including listing of a species as endangered are published in the Federal Register (USFWS Endangered Species Program).

Felton Variant soils—Deep, well-drained soils located on uplands that have a slope of 30 to 50 percent.

field fortifications—Military earthwork features such as foxholes, trenches, etc., generally temporary in nature. The locations of the World War II era field fortifications at GGNRA are generally indicated only by suspicious landforms or gun mounts sticking up from the sand. See **landform, gun mount**.

fire roads—Periodically maintained and bladed roads, classified as driveable firebreaks, which are opened prior to the fire season to provide administrative and emergency access to strategic or remote locations. Public vehicular access is not allowed. The fire roads in GGNRA are used as trails by hikers, dog walkers, horseback riders, and others. In Marin County, dogs are allowed off leash on fire roads.

Fish and Wildlife Coordination Act of 1934 (as amended)—A federal regulation enacted in 1934 to protect fish and wildlife when federal actions result in the control or modification of a natural stream or body of water. The Act provides the basic authority for the involvement of the USFWS in evaluating impacts to fish and wildlife from proposed water resource development projects.

flora—Plant life characteristic of a region.

flush distance—The distance from a given disturbance (e.g., human pedestrians or dogs) at which wildlife will flee, possibly resulting in danger to abandoned young or negative effects on foraging or nesting behaviors. A study by Miller et al. found that flush distance varied greatly depending on the type of disturbance (dogs alone, dogs walked on leash, or humans alone) and the animal in question.

flushing wildlife—Intentionally or unintentionally causing animals to flee because of noise or other disturbance.

forage—*noun* Plant material (mainly plant leaves and stems) eaten by browsing animals.

forage—*verb* To search (as animal) for food; browse.

foraging—Searching for food, especially by browsing or grazing. When foraging sites are compromised or disturbed by dog and human activities, important wildlife foraging behaviors can be altered.

forb—An herbaceous flowering plant other than grass.

foredune community—The complex of plants that thrive on the angled side of a coastal dune that faces the ocean.

fortification—See **field fortification**.

foxholes—Fighting positions measuring about 6 to 8 feet long and 2 feet deep, where one or two men could provide defensive fire with rifles. These positions could be quickly dug with the simplest hand tools, and only provided minimal protection. See **field fortification**.

fragile habitats—Natural communities that provide habitat for plant or animal species and that are particularly susceptible to human- and dog-related impacts. Species dependent on these habitats may suffer direct impacts from trampling and off-trail use of dunes and other fragile habitats. For example, the rare San Francisco Bay spineflower and San Francisco wallflower may require or benefit from the protection offered by a substrate undisturbed by humans and dogs.

fragmentation of habitat—Breaking up an organism's habitat into discontinuous chunks, particularly for organisms that have difficulty moving from one of those chunks to another. Dogs and humans may fragment habitat by creating informal trails, for instance, and such habitat impacts have been documented at GGNRA sites such as Fort Funston.

fragmented landscape—Discontinuous habitat. See **fragmentation of habitat**.

Franciscan complex—See **Franciscan Mélange**.

Franciscan Mélange—Also Franciscan complex. A landscape of easily eroded, sheared, and crushed sandstone and shale. The bedrock to the north of the Tennessee Valley is composed of this erodible assemblage. See **Mélange areas**.

front-beach species—Animals such as shorebirds that use the low beach area (near the water's edge).

fungi—Fungus: A member of a large group of organisms that includes microorganisms such as yeasts and molds, as well as mushrooms. Fungi are classified as a kingdom separate from plants, animals, and bacteria.

garrisoned—Occupied with troops.

geographic information system (GIS)—Any system that captures, stores, analyzes, manages, and presents data that are linked to location.

geological resources—A naturally occurring solid, liquid, or gas that is known or thought to exist in or on the Earth's crust in concentrations that make extraction economically feasible, either at present or at some time in the future. In 2006 NPS closed part of Fort Funston in part to protect geological resources, including the bluff top and interior dunes, which had been subjected to accelerated erosion due to human- and dog-related activities.

geometrical contours—Sharp edges and straight lines easily distinguishable by enemy surveillance; to be avoided in the exterior slopes of coastal defenses and further concealed by planting of the slopes.

gleaners—Insectivores (insect eaters). Gleaning is the catching of insects and other invertebrates by plucking them from within foliage, or sometimes from the ground—It may also be applied to where prey is picked off, or from within, natural and man-made surfaces such as rock faces and under the eaves of houses.

goby—See **tidewater goby**.

Golden Gate Biosphere Reserve—A biosphere reserve in Northern California created by UNESCO in 1988, which encompasses thirteen protected areas in the San Francisco Bay Area. It includes a diverse range of marine, coastal, and upland habitats.

Golden Gate National Recreation Area Enabling Legislation—GGNRA was established by Congress in 1972 (PL 92-589). Based on the record, making national park resources and programs available to a wide variety of visitors was clearly intended by Congress and the administration to be a major purpose of GGNRA (NPS 1980), along with the legislation's direction to observe sound principles of land use planning and management and preserve the scenic beauty and natural character of the area.

Golden Gate National Recreation Area Strategic Plan—The park's Strategic Plan (NPS 1997), currently under revision, includes several policy statements relevant to dog management planning. These relate to preserving and enhancing the natural environment and cultural resources, protecting the integrity of the park's fragile resources, bringing national parks to the people, and strengthening the park's relevance to its metropolitan neighbors.

Golden Gate National Recreation Area Superintendent's Compendium (NPS 2001b)—The format wherein each park, as allowed by the CFR, can publish park-specific actions to protect cultural or natural resources, enhance public health or safety, or avoid conflict among visitor use activities.

gravelly loam—Soil containing 7 to 27 percent clay, 28 to 50 percent silt, and 15 to 35 percent gravel by volume.

grebe—A member of a widely distributed order of freshwater diving birds (Podicipediformes), some of which visit the sea when migrating and in winter.

gross domestic product (GDP)—The total value of the goods and services produced by the residents of a socioeconomic entity during a specified period (generally a year), excluding net income earned abroad. The GDP of the San Francisco metropolitan statistical area, part of the area potentially affected by GGNRA dog management actions, was approximately \$268 billion in 2005.

guardhouse—Building used as a headquarters by soldiers on guard duty. Crissy Airfield retains the majority of its original buildings, including the guardhouse.

guide dog—a type of dog that has been specially trained then partnered with a blind or visually-impaired person to increase their ability to move about safely, effectively, and independently.

gulls—Laridae; some of the birds for which the shoreline of San Francisco Bay provides feeding, breeding, roosting, and wintering habitat.

gully—A trench formed by soil erosion caused by running water.

gun mount—A weapon component used to secure an armament, which permits the operator to rest the weapon on the mount, steadying the weapon and increasing accuracy.

habitat alteration—Alteration of habitat occupied by unique or sensitive species can include trampled vegetation, altered or eroded soils, inadvertently introduced non-native species of plants, and increased potential for predators. Intensive human or dog use can result in any or all of these effects. Some wildlife species are highly vulnerable to even slight changes in habitat.

habitat corridor—A strip of land that aids in the movement of species between disconnected areas of their natural habitat. Habitat fragmentation due to human development is an ever-increasing threat to biodiversity, and habitat corridors are a possible solution. The equestrian trail in Fort Funston is within a habitat corridor.

habitat protection closure violation—One of the violations for which NPS rangers and U.S. Park Police will contact dog walkers.

habitat—The place or environment where a plant or animal naturally lives. Can be classified as nesting habitat, foraging habitat, wintering habitat, and other life-cycle divisions.

hangar—A covered area, usually enclosed, for housing and servicing aircraft. Crissy Airfield retains the majority of its original buildings, including the hangars.

harassment—Creating the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns, including breeding, feeding, or sheltering (ESA, 50 CFR 17.3). There have been documented cases of dogs and humans harassing western snowy plovers and other protected species in GGNRA; one of the objectives of the GGNRA dog management plan is to avoid harassment of wildlife, which can constitute “take” under the ESA. See **take**.

herons—Wading birds in the Ardeidae family, some of which are called egrets or bitterns instead of herons. Egrets are not biologically distinct from the herons, and tend to be named differently because they are mainly white and/or have decorative plumes. See **egrets**.

historic structures—Buildings or other man-made structures representative of a particular period in history. The historic structures in GGNRA, including field fortifications and other remnants of the coastal batteries of World War II, are cultural resources.

human factors—Park visitors, dogs—trampling, digging.

hummocky—Characterized by rounded knolls or small hills.

hydric soil—A soil formed under conditions of flooding, saturation, or ponding long enough to develop anaerobic conditions.

hydrologist—One who studies the movement, distribution, and quality of water throughout the Earth, thus addressing both the hydrologic cycle and water resources. Hydrologists work in the fields of either earth or environmental science, physical geography, geology, or civil and environmental engineering.

igneous rocks—One of the three main rock types (the others being sedimentary and metamorphic rock). Igneous rock is formed by molten rock (magma) cooling and becoming solid, and makes up approximately 90 percent of the upper part of the Earth’s crust. Igneous rocks include basalt, granite, diorite, rhyolite, and others.

impede—Hinder; discourage; prevent.

imperceptible—Extremely slight (as in effects), and therefore not significant and not treated further in the plan/EIS.

implementation—Carrying out, putting into practice (as a rule or alternative). An EIS is required prior to implementation of a rule that would establish a new dog management plan for GGNRA.

incubation—The act or process of hatching eggs with the adults warming and protecting them by sitting on them (brooding). Interruption of the incubation process can negatively affect reproductive success, and dogs have been documented harassing brooding western snowy plovers at GGNRA.

Indian Trust Resources—Indian trust assets are owned by Native Americans but held in trust by the United States. Since the lands within the park boundaries are not held in trust by the Secretary of the Interior for the benefit of Indians, this topic was dismissed from discussion in the plan/EIS.

infrastructure—System of public works (e.g., roads, sanitation, water); one of the socioeconomic links shared by GGNRA and the community.

insecticide—Chemicals used to kill insects regarded as pests; pesticide. Nearly all insecticides have the potential to significantly alter ecosystems. An insecticide, Fipronil, has been detected in surface waters at Nyhan Creek at GGNRA.

interdisciplinary team—Composed of a project manager from the NPS EQD and GGNRA staff members from a wide range of disciplines, this team was organized to develop a set of alternatives based upon the purpose, need, and objectives contained in the plan/EIS.

interior dunes—Coastal dunes, both frontal and interior, are part of the equilibrium of barrier beach systems. Interior dunes, behind the frontal dunes, provide high ground and protection against penetration of overwash and the damaging effects of storm-surge ebb scour. Interior dunes at Fort Funston have been subjected to accelerated erosion caused by human and dog activity, leading to temporary closure of the area.

internal scoping—The process wherein GGNRA park staff and consultant specialists met with the NEPA team from the NPS Environmental Quality Division to draft the purpose, need, and objective statements to identify existing dog management problems and begin drafting possible solutions. This process can take many months and usually ends with publication in the Federal Register of a Notice of Intent to prepare an EIS and to hold meetings to gather public comment. The internal scoping for this project began in late January 2005, and the GGNRA Notice of Intent to prepare an EIS was published February 22, 2006.

Interpretation Budget—A past source of funding for visitor education about dog regulations at GGNRA.

interpretative—Using a teaching technique that combines factual information with stimulating explanatory content. Part of the range of experiences a visitor might have is using a park's interpretative or educational services via internet access, library, or at a park site.

interspersed—Separated by others, not continuous. The disconnected nature of GGNRA park sites, which are interspersed with other public lands managed by county, state, or regional agencies, complicates enforcement of leash laws. Each area has its own set of rules and regulations regarding dog

walking, some of which differ from NPS regulations, and geographical boundaries between agency jurisdictions are not always obvious.

invasive plant species—See **invasive species**.

invasive species—Usually non-native species, which can outcompete native species for habitat and resources. Dog-related disturbance of soils may influence native plant propagation, establishment, and viability and promote colonization by non-native, invasive species.

irreplaceable natural resources—See **depletable resources**.

knoll—A small, rounded hill.

laceration—A scratch or shallow cut.

lagoons—Shallow sounds, channels, or ponds near or communicating with a larger body of water (in this case, the Pacific Ocean). Dogs playing in lagoons can increase turbidity, which can disrupt fish feeding. Dog waste can increase nutrient levels in lagoons, which can alter the type and growth of vegetation and the ability of wildlife to continue to use the area for habitat. Potential impacts include those from increased nutrient impacts on coho, steelhead, or other fish nurseries, and on critical reproductive habitat for the federally endangered tidewater goby known to occupy Rodeo Lagoon. Dog feces may also transmit a variety of pathogens to aquatic species via water contamination.

landform—A natural feature of a land surface. Where unnatural landforms occur, they can indicate the presence of buried cultural resources.

landmark designation—Nationally significant historic places may be designated as landmarks by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States.

law enforcement staff—GGNRA NPS rangers and U.S. Park Police, collectively referred to as law enforcement staff.

leash laws—Many visitors use GGNRA for dog walking because of the leash laws in the surrounding counties. Violation of leash laws is one of the reasons NPS rangers and U.S. Park Police will contact dog walkers. See **1979 Pet Policy**, **NPS Service-wide Dog Regulation**, **leash required**, **seasonal leash restrictions**.

leash required—On posted signs at GGNRA, this indicates that dogs must be walked on leash. GGNRA has removed “leash required” signs in areas that had been selected for voice and sight control in the 1979 pet policy until completion of the required notice and comment rulemaking under Section 1.5(b).

legislated boundary—GGNRA’s legislated boundary now encompasses approximately 80,000 acres in San Francisco, Marin, and San Mateo counties. Within the legislated boundary, GGNRA manages approximately 16,000 acres.

levee area—The area inland of the embankment (levee) separating the beach area from the wetlands and ponds at Mori Point GGNRA, south of Sharp Park Golf Course. There is a boardwalk to allow visitors to walk through the wetlands and past the ponds without disturbing the environment.

line item construction—The construction, rehabilitation, and replacement of those facilities needed to accomplish the management objectives approved for each park.

linguistic—Related to language or the scientific study of language.

litigation—Legal action, in this case, challenging an agency action. One of the reasons a comprehensive dog management policy is needed at GGNRA. A policy inconsistent with NPS regulations and increased public expectations for use of the park for dog recreation have resulted in controversy, litigation, and compromised visitor and employee safety, affecting visitor experience and resulting in resource degradation.

loam—Soil containing 7 to 27 percent clay, 28 to 50 percent silt, and 23 to 52 percent sand by volume.

machine gun pit—A field fortification offering supplemental support to the fortified batteries.

magazine—A room (e.g., in a fort) in which powder and other explosives are kept.

mammalian—Of or relating to mammals.

mandate—Because conservation remains its predominant mandate, the NPS seeks to avoid or to minimize adverse impacts on park resources and values.

manifestation—A perceptible, outward, or visible expression.

man-made features—Part of the cultural landscape at GGNRA includes man-made features such as the Battery Townsley and its earthworks. The presence of dogs may detract from the value of the landscape because dogs may adversely affect cultural landscapes through play, digging, urinating, or defecating.

Marine Mammal Protection Act—This federal law, enacted in 1972, was the first article of legislation to call specifically for an ecosystem approach to natural resource management and conservation. MMPA prohibits the taking of marine mammals, and enacts a moratorium on the import, export, and sale of any marine mammal, along with any marine mammal part or product within the United States.

maritime transportation—Shipping of goods and traveling by sea. The USCGS Historic District's period of significance is related to several important structures associated with maritime transportation.

marsh—A tract of soft, wet land usually characterized by monocotyledons (e.g., grasses, cattails). Marshes in GGNRA include tidal marshes, freshwater marshes, brackish marshes, and one salt marsh (at Crissy Field).

marshland—Marsh.

Mélange areas—Topographically, Mélange areas have broad ridge crests and gentle slopes. Because they are more easily eroded, there are frequent earthflows. See **Franciscan Mélange**.

metabolic cycles—The set of chemical reactions that happen in living organisms to maintain life. Some bacteria and fungi use oxygen in their metabolic cycles, which can lead to depleted dissolved oxygen levels in water.

metabolic rates—The rate of metabolism; the amount of energy expended in a given time period.

metamorph—An organism that undergoes metamorphosis, or one that is in the process of metamorphosing (especially one at an indeterminate stage of the process).

metamorphic rock—One of the three main rock types (the others being igneous and sedimentary). Metamorphic rock is the result of the transformation of an existing rock type, the protolith, through heat and pressure causing profound physical and/or chemical change. The protolith may be igneous, sedimentary, or another older metamorphic rock. Some examples of metamorphic rocks are gneiss, slate, marble, schist, and quartzite.

microbial biofilm—An aggregate of microorganisms in which cells are stuck to each other and/or to a surface. Biofilms are usually found on solid substrates submerged in or exposed to some aqueous solution, although they can form as floating mats on liquid surfaces and also on the surface of leaves, particularly in high humidity climates.

microorganisms—Bacteria and other organisms of microscopic size. Uninfected dogs may pick up canine distemper virus and other diseases from infected wildlife. Wild birds, small mammals, and other dogs can also introduce microorganisms into a water supply, and algal blooms or other naturally occurring phenomena can make uninfected dogs sick when they drink from affected streams or ponds.

Migratory Bird Treaty Act of 1918—A law making unlawful the kill, capture, buy, sell, import, or export of migratory birds, eggs, feathers, or other parts.

migratory birds—Birds that move periodically from one region to another for feeding, breeding, or wintering.

mitigation—Lessening the effects of an adverse impact, either by reducing the impact itself or by arranging for acceptable mitigation elsewhere in the park or off site; for example, by restoring alternative habitat and relocating affected individuals.

Monitoring-Based Management Program—A program designed to encourage compliance with sections of the Code of Federal Regulations (CFR) applicable to dog management, and ensure protection of park resources, visitors and staff. It provides the framework for monitoring and recording observed noncompliance with the applicable sections of the CFR, including the new 36 CFR Part 7 special regulation, and will guide use of park resources to address those violations. Noncompliance with federal regulations related to dog management will be met with a range of management responses. The program will also monitor for impacts to natural and cultural resources.

morbidity—Disease. Shorebirds unaccustomed or unable to acclimate to human or dog disturbance will either repeatedly flush when approached or will no longer reside at a site. This behavior can result in bird energy loss, morbidity (disease), reduced reproductive success, or death.

municipalities—Cities. Increasingly, municipalities are being challenged by the growing popularity of dog walking, and are responding by providing dog parks or play areas where dog owners can allow their dogs to be off leash.

mutually exclusive—Contradictory; unable to be both true at the same time.

National Environmental Policy Act (NEPA)—An environmental law enacted in 1969 that established a national policy promoting the enhancement of the environment and also established the President's Council on Environmental Quality (CEQ). NEPA's most significant effect was to set up procedural

requirements for all federal government agencies to prepare environmental impact statements. The dog management plan/EIS is intended to fulfill NPS obligations under NEPA.

National Historic Preservation Act—A law enacted in 1966 that requires federal agencies to consider the effects of their undertakings on properties listed or potentially eligible for listing on the National Register of Historic Places. All actions affecting the parks' cultural resources must comply with this legislation.

National Marine Fisheries Service (NMFS)—A federal agency that is a division of the NOAA. The NMFS is responsible for the stewardship and management of the nation's living marine resources and their habitat within the United States' Exclusive Economic Zone, which extends seaward 200 nautical miles from the coastline.

National Oceanic and Atmospheric Association (NOAA)—NOAA is a scientific agency within the U.S. Department of Commerce focused on the conditions of the oceans and the atmosphere. NOAA warns of dangerous weather, charts seas and skies, guides the use and protection of ocean and coastal resources, and conducts research to improve understanding and stewardship of the environment.

National Vegetation Classification System—Devised by the USGS/NPS Vegetation Mapping Program in response to the NPS Natural Resources Inventory and Monitoring Guideline (NPS-75) issued in 1992. The objective of the Vegetation Mapping Program is to develop a uniform hierarchical vegetation classification standard and methodology on a Service-wide basis and, using that classification standard and methodology, to generate vegetation maps for most of the park units under NPS management.

Native American—Any of the indigenous peoples living within the United States.

native plant communities—Interdependent complexes of naturally occurring vegetation, which nourish native wildlife and which require specific soil conditions and other habitat characteristics to survive. Through intensive and prolonged use of park sites, dogs may reduce the abundance and diversity of native plant communities, resulting in the loss of rare or unusual plants.

native plant propagation—Disturbance of soils by dogs and humans may influence native plant propagation and promote colonization by non-native, invasive species. See **propagation**.

natural forces—Wind, rain, seismic activity, soil instability, and burrowing animals.

natural resource restoration—Use of proven methods to return affected resources, such as vegetation, soils, or wildlife, to near their original health and numbers.

natural seeps—Small springs, or places where water naturally oozes to the Earth's surface, often forming pools. One of the resources in the Lands End area potentially subject to impacts by dogs.

Nearby dog walking areas—An area that allows recreation in the form of either on-leash or off-leash dog walking and is located in close proximity or adjacent to existing GGNRA sites considered in this plan/SEIS.

Negotiated Rulemaking Act—A law enacted in 1990 that establishes a framework for the selection of a negotiated rulemaking committee and consensus development of a proposed federal regulation. As a result of the federal panel review, public comment, and other internal park discussions, GGNRA chose to pursue negotiated rulemaking under the law.

Negotiated Rulemaking Committee—The committee, established in February 2006, was composed of nine primary representatives and nine alternates from three informal caucuses: voice and sight control advocates, environmental and conservation organizations, and other park users. Its goal was to reach consensus on a special regulation or portions thereof on dog management at GGNRA and recommend that regulation to the NPS.

nesting songbirds—Small birds. Unleashed dogs running into the understory to retrieve balls or simply to explore the scentscape may adversely affect the structure of the plant community and reduce its value as wildlife habitat for amphibians, small mammals, and nesting songbirds, such as Swainson's thrush and California quail.

nitrate—A naturally occurring chemical that is left after the breakdown of animal or human waste. In freshwater or estuarine systems close to land, high levels of nitrates can potentially cause the death of fish. Nitrates form a component of total dissolved solids and are widely used as an indicator of water quality.

nitrogen—A chemical element that constitutes 78% by volume of Earth's atmosphere. Dog waste can increase the amount of nitrogen in the soil, altering the soil chemistry and threatening native plants.

no-dog experience—Some alternatives would provide a no-dog experience in certain areas for visitors who would prefer to enjoy the park without the presence of dogs.

non-indigenous visitors—Any of the peoples from other cultures who came into contact with Native Americans. Their importance to the study of Native American history lies chiefly in their written records of encounters with the indigenous peoples, who did not use written language.

nonrenewable resources—See **depletable resources**.

North American Industry Classification System (NAICS)—The standard used by federal statistical agencies in classifying business establishments for collecting, analyzing, and publishing statistical data related to the U.S. business economy. Dog walking services are classified as "Pet Care (except Veterinary) Services" under NAICS, code 812910.

Notice of Establishment (NOE)—Publication of an NOE in the Federal Register is required before a federal advisory committee can meet. Following publication of a Notice of Intent to establish a negotiated rulemaking committee for the plan/EIS, an NOE was published in the Federal Register in February 2006. See **Negotiated Rulemaking Committee**.

Notice of Extension of Comment Period—Published in the Federal Register on March 29, 2006, to extend the period for public comment on the scope of the planning process and potential alternatives through April 24, 2006.

Notice of Intent (NOI)—A Notice of Intent is a formal notice that an action will occur. For this process NOIs were published to establish a negotiated rulemaking committee in the Federal Register in June 2005 and to indicate that an EIS would be prepared in the Federal Register in 2006. See **Negotiated Rulemaking Committee**.

NPS Environmental Quality Division (EQD)—A part of the Natural Resource Program Center, reporting to the Associate Director for Natural Resources Stewardship and Science. Provides technical assistance to parks and serves as the focal point for all matters relating to NEPA planning and other related environmental mandates (NPS DO #12).

NPS Organic Act—See **Organic Act of 1916**.

NPS Service-wide Dog Regulation—NPS-wide regulation 36 CFR 2.15(a)(2) states that the following are prohibited: Failing to crate, cage, restrain on a leash which shall not exceed six feet in length, or otherwise physically confine a pet at all times.

nutrient chemistry—The balance of nutrients in soils or water; alteration of this balance by adding, removing, or changing nutrients can be detrimental to the organisms that depend on them. Dogs, particularly off leash and without adequate voice and sight control, can potentially change nutrient chemistry in soils and water.

obsidian flakes—Small chips of obsidian, a naturally occurring volcanic glass formed as an extrusive igneous rock that was commonly used for projectile points in ancient cultures. Found at the San Francisco County archeological sites at GGNRA, these flakes are evidence of Native American weapon- and tool-making activities.

off designated trails—Under all action alternatives, dogs would be prohibited in all campgrounds and off designated trails in GGNRA.

off-leash dogs—Without further information, does not specify whether under voice and sight control or wandering free without voice and sight control. Under the 1979 pet policy (and current use), provisions exist for off-leash dog use within GGNRA, in contravention of NPS-wide dog management policy.

offensive artillery—Large-bore, crew-served, mounted projectile weapons. To avoid penetration by artillery attacks on the California coast, the resistance of a battery was calculated in a certain number of feet of earth placed in front of a certain number of feet of concrete.

Ohlones—One of the two major indigenous communities (the other being the Coast Miwoks) occupying the lands around San Francisco Bay at the time of first contact with non-indigenous visitors. Approximately 50 small, politically independent tribes of Ohlones lived south of the Golden Gate.

on-leash dog walking—On-leash dog walking requires dogs to be restrained on a leash not to exceed six feet in length. Excludes dogs on leash but uncontrolled; e.g., dogs with their leashes in their mouths or dogs trailing their leashes behind them.

Organic Act of 1916—Established the National Park Service. The Act requires conservation of park scenery, natural and historic objects, and wildlife, and provision for the enjoyment of park resources in such a manner as to leave them unimpaired for the enjoyment of future generations. Prohibits actions that impair park resources unless a law directly and specifically allows for these actions (54 USC 100101).

organisms—Plants and animals, bacteria, and other living things.

outreach volunteers—Under all action alternatives, outreach volunteers (such as Trail Keepers) would help educate and inform the public about the new dog management regulation.

paleontological resources—Fossil remains of life forms from past geological periods. Dog and human overuse of areas may result in uncovering of paleontological resources, leading to subsequent damage or loss.

palustrine wetlands—All nontidal wetlands dominated by trees, shrubs, persistent emergent plants, or emergent mosses or lichens, as well as small, shallow open-water ponds or potholes. Often called swamps, marshes, potholes, bogs, or fens.

parapet—A wall, rampart, or elevation of earth or stone to protect soldiers. On-leash dog walking would be allowed only on the paths and parapet of Sutro Heights Park.

parasitic nematodes—Roundworms, which can live free in soil and water, and which live in animals or plants by robbing nutrients to the detriment of the host. Dog waste can contain parasitic nematodes, which can cause fevers, bronchitis, asthma, or vision problems in severe infections. Infection by any of these pathogens can occur through ingestion of contaminated sand, vegetation, or water.

park concessionaires—Businesses that pay the park fees for permission to do business within park grounds.

parvovirus—Parvovirus is one of the pathogens that can enter park waterbodies if dogs defecate within the water or through runoff when pet waste is not cleaned up. All strains of canine parvovirus will affect dogs, wolves, and foxes.

passive recreational experiences—In contrast with active recreation, such as biking, playing frisbee, and windsurfing, passive recreation is usually quieter and includes activities such as walking, bird-watching, and picnicking. Such activities can easily be disrupted by noisy dog play or barking.

pathogens—Specific causes (bacteria, viruses) of disease. Dog waste can communicate pathogens to the wild environment, and dogs can ingest pathogens from the wild.

peer review—Professional evaluation of work or performance by a group of experts in the appropriate field; the Western snowy plover monitoring protocol at GGNRA was peer reviewed by an external panel through the NPS I&M Program peer review process.

pelagic birds—Oceanic birds; birds that live and hunt primarily on the open sea, returning to land only to breed. Species include petrels, sooty terns, and shearwaters.

perennial—Persisting for several years, usually with new herbaceous growth.

perturbation processes—The causes and effects of disturbance to a given group. One of the steps toward advancing the recovery of the mission blue butterfly is identification of the perturbation processes.

pesticide—An agent, usually chemical, used to destroy pests. Pesticides have been detected in some of the waterbodies in the park.

pet care services—This category of businesses includes animal grooming services, animal shelters, pet boarding services, dog pounds, guard-dog training services, guide-dog training services, kennels, pet boarding, obedience-training services, pet-sitting services, and dog walking services. There are 68 registered pet care service businesses in the city of San Francisco and 216 such businesses in the San Francisco MSA.

pet citations—Tickets issued to dog walkers for dog-related violations, for example, dogs accessing closed areas.

pH—A measure of the acidity or alkalinity of a solution: Solutions with a pH less than 7 are said to be acidic and solutions with a pH greater than 7 are said to be alkaline (or basic). One of the water quality indicators measured at several of the park’s waterbodies by GGNRA.

phosphorus—A chemical element that is essential for all living cells. The most important commercial use of phosphorus-based chemicals is the production of fertilizers; however, phosphorus levels in water may increase due to animal waste, among other factors. Phosphorus is one of the water quality indicators measured for during testing of GGNRA waterbodies.

population viability—The state of numbers and health at which a wildlife population is able to remain self-sustaining and continue to survive. Intensive dog use of an area could disrupt its use by wildlife or degrade the habitat, resulting in a multitude of possible negative consequences for wildlife population viability.

predation—Hunting and killing of prey by predators. Predation can preclude use of any area and is one of the causes of habitat loss for the western snowy plover, a federally threatened species.

predator territory—The area in which a carnivorous animal or group of animals lives and hunts; usually these territories do not overlap with others of the same or similar species, and they are generally marked out by scent. One of the less obvious effects from intensive dog use of park lands is scent intrusion into predator territory.

prehistoric structures—Ruins or remains of buildings from a period predating written history. The presence of dogs inside prehistoric structures is inconsistent with the value of these structures because dogs may adversely affect them through play, digging, urinating, or defecating.

Presidio of San Francisco / Presidio Trust Management Plan—In 2002, the Presidio Trust approved the Presidio Trust Management Plan to update and supersede the GMP Amendment in Area B of the Presidio. (The GMP Amendment remains the management plan for Area A of the Presidio, still under the jurisdiction of the NPS.) The Presidio Trust Management Plan EIS states that the Trust “will give future consideration to its regulation regarding dogs once the GGNRA rulemaking process is concluded.” The Presidio Trust is a cooperating agency with the NPS on the dog management plan/EIS.

Presidio Trust Act—In 1996, Congress passed the Presidio Trust Act, creating the Presidio Trust as a wholly owned federal government corporation and granting jurisdiction of the 1,168-acre inland area of the Presidio, known as Area B, to the Trust.

prevalent—Widespread; dominant; common.

promenade—A place for strolling. Promenades at Crissy Field and Fort Point both have specific designations (on-leash dog walking only or voice and sight control) under various alternatives.

promulgate—Proclaim or put into action (as a rule or regulation).

propagation—Increasing in numbers or area, usually by reproduction (plants).

prostrate—Lying flat on the ground (plants).

ranch dog permit—Permit issued by Marin County to allow ranchers to walk more than three adult dogs.

raptors—Birds of prey; any bird that hunts other animals.

Redwood National Park Expansion Act of 1978—Legislation formalizing a major expansion of the park, adding 48,000 acres to the park and doubling its size.

regulated off-leash areas (ROLAs)—Designated areas within GGNRA that allow off-leash dogs under voice and sight control.

religious indoctrination—The process of imparting doctrine in a non-critical way; the term may imply forcibly or coercively causing people to act and think on the basis of a certain religion. Religious indoctrination was one of the influences the Spanish settlers of the San Francisco Bay area brought with them that resulted in the devastation of the native cultures.

restored habitat—Areas of soil, water, and vegetation that have been returned to their original functions and values by focused restoration activities. Such areas are protected under various alternatives by requiring on-leash dog walking or restricting dogs to areas outside the restored habitat.

retractable leash—Cassette-type leash where the unused portion of leash is retracted into the cassette. In the Midpeninsula Regional Open Space District, retractable leashes can be up to 25 feet in length, whereas traditional leashes are restricted to a maximum length of 6 feet.

riparian coastal scrub—One of the plant communities present in GGNRA. Understory is an important wildlife habitat component of riparian coastal scrub and other plant communities within GGNRA. Unleashed dogs running into the understory may adversely affect the structure of the plant community and reduce its value as wildlife habitat for amphibians, small mammals, nesting songbirds, and California quail.

riparian—Related to, living on, or located on the bank of a natural watercourse.

riverine wetlands—Wetlands formed by and found alongside rivers. See **wetlands**.

Rodeo Clay Loam—Hydric soils that run along the Tennessee Valley floor with a slope of 2 to 5 percent. These soils are poorly drained and have a high available water capacity.

roosting—Settling down for rest or sleep; perching (birds). Resting habitat can be particularly important to migrating shorebirds, thousands of which come to GGNRA. Roosting and feeding plovers and other shorebirds flushed more frequently when pedestrians were accompanied by a dog.

roundworms—See **parasitic nematodes**.

sacred sites—Native Americans believe that certain areas of land are holy. Many of these places are fragile and have been adversely impacted by too many visitors or vehicles or activities. However, as there are no sacred sites known to exist on GGNRA lands, this topic has not been further addressed in the plan/EIS.

sag ponds—A body of water that forms as water collects in the depressions that form between two strands of an active strike-slip fault. The federally threatened California red-legged frog is known to breed in sag ponds.

saline hydraquents—Hydric soils located in tidal flats. These soils are flat (0 to 2 percent slope) and very poorly drained. The soils have a very low available water capacity and a moderate to strong salinity.

salmonid—Any of the family Salmonidae of long, bony fishes (such as salmon or trout) that have the last three vertebrae upturned. Two known salmonids (coho salmon and steelhead trout) in GGNRA are federally threatened species. Dogs playing in water can increase turbidity, which can disrupt fish feeding, particularly for visual feeders like salmonids.

San Francisco Bay Area Network Inventory & Monitoring (I&M) Program—This program monitors resources at GGNRA identified as vital signs and includes the following: salmonid fish, landbirds, harbor seals, listed species (western snowy plover and northern spotted owl), plant communities, invasive plants, specific habitats (riparian, wetland, and rocky intertidal), weather and climate, landscape dynamics, stream flow, and water quality.

San Francisco Metropolitan Statistical Area (MSA)—Comprising the counties of San Francisco, San Mateo, and Marin counties, each of which encompasses GGNRA lands.

sandstone—A sedimentary rock composed mainly of sand-sized minerals or rock grains. An important component of the Franciscan Mélange. See **Franciscan Mélange**.

scent intrusion—One of the subtler effects of intensive dog use of GGNRA lands. See **predator territory**.

scentscape—The overall olfactory character of an area. Dog intrusions into the natural scentscape (e.g., by urinating and defecating) can alter the behavior of wildlife

seabirds—Includes birds that live around the sea adjacent to land, as well as pelagic birds. See **pelagic birds**.

seasonal leash regulations—See **seasonal leash restriction**.

seasonal leash restrictions—Requiring on-leash dog walking in areas that are normally open to off-leash dogs, based on the seasonal presence of a protected or special-status animal species (e.g., western snowy plover), in order to protect the species.

Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation—Effective September 1983, these standards and guidelines are not regulatory and do not set or interpret agency policy. They are intended to provide technical advice about archeological and historic preservation activities and methods.

Secretary of the Interior—Head of the Department of the Interior, which oversees such agencies as the Bureau of Land Management, the U.S. Geological Survey, and the National Park Service. The Secretary also serves on and appoints the private citizens on the National Park Foundation board and is a member of the President’s Cabinet. The ESA requires all federal agencies to consult with the Secretary of the Interior on all projects and proposals having potential impacts on federally threatened and endangered plants and animals.

sediment—Particles of organic and mineral matter that settle to the bottom of a waterbody. When stirred up by dogs playing in water, the suspended sediments greatly increase turbidity, and the smaller sediments can remain suspended for hours, affecting fish feeding and reducing the numbers and diversity of benthic fauna.

sedimentary layers—Layers formed by overlapping deposits of sediment at the bottom of a waterbody. Through geological processes including compaction, these layers become rock. See **sediment**.

seedling microsites—A pocket within an environment with unique features, conditions, or characteristics that make it suited for seedling propagation and growth. Classifying different microsites may depend on many factors, including temperature, nutrient availability, soil physical characteristics, vegetation cover, and so on.

seismically active—Containing active faults that periodically result in earthquakes. GGNRA is located in a seismically active area, due to the presence of the San Andreas fault and multiple smaller faults.

sensitive habitat—See **fragile habitat**.

sensory perception—The ability to see, hear, smell, taste, and feel. Elderly people may have decreased sensory perception, which may place them at greater risk of negative encounters with aggressive dogs.

serpentine soils—These rare soils have a low calcium to magnesium ratio; they have high concentrations of other metals; and they lack essential nutrients, such as nitrogen, potassium, and phosphorus. At least twenty-eight plant and animal species occur either exclusively or primarily on serpentine soils in the Bay Area. Of these species, half are federally listed as threatened or endangered and the remainder are species of concern.

sewer outfall—Outlet or mouth of a sewer.

shale—A fine-grained, clastic sedimentary rock composed of mud. An important component of the Franciscan Mélange. See **Franciscan Mélange**.

shear—A splitting force caused by tangential pressure.

shell midden—See **shellmounds**.

shellmounds—Also called shell middens. An archaeological feature composed mainly of mollusk shells as debris from human activity. They contain a detailed record of what food was eaten or processed, as well as many fragments of stone tools and household goods, which makes them invaluable objects of archeological study.

shorebird—Any of a suborder of birds (*Charadrii*) that frequent the seashore. GGNRA waterfront lands provide habitat for thousands of shorebirds, including the federally threatened western snowy plover.

shrapnel—Bomb, mine, or shell fragments.

sight control—Any dog a walker is responsible for must be within sight and under verbal command at all times, regardless of distractions that can occur during a walk. If a dog cannot immediately obey verbal commands, it must remain on leash. Under alternatives C through F (as applicable), dogs in VSCAs must be under voice and sight control at all times.

signal cable hut—Constructed in 1921 (building 946), this partially buried structure could be affected by the dog management plan.

silty clay loam—Soil consisting of 27 to 40 percent clay, 40 to 73 percent silt, and 0 to 20 percent sand, which characterizes the Blucher-Cole complex.

Sirdak sands—Deposited in dunes, with slopes from 5 to 50 percent. These sands can reach a depth of 120 feet. The sands are somewhat excessively drained and have a low available water capacity.

site abandonment—Wildlife leaving a nest or den site or foraging ground because of disturbance. An example of the short-term effects on wildlife that can occur due to human nonconsumptive recreational activities.

socioeconomics—Relating to a combination of social and economic factors. NPS dismissed socioeconomics as an impact topic in the plan/EIS because the socioeconomic impacts of alternative dog management policies are expected to have no measurable economic impact on the surrounding area.

soil erosion—A natural process by which water, wind, or other environmental factors break down, carry away, and then redeposit soil layers. Dog and human overuse of areas may result in accelerated soil erosion, exposing cultural or paleontological resources, threatening native plant species, or damaging geological resources. See **accelerated erosion**.

Soulajule soil series—Consists of moderately deep, well-drained soils that are located on hillsides.

soundscapes—The overall auditory character of an area. Barking dogs and the alarm calls of startled birds can be detrimental to the natural soundscape, affecting both visitor experience and wildlife communication.

Special Ecological Area (SEA)—The identified area in each ecological community type that is most biologically intact and diverse and has the most important biological values. In 1999, the Natural Resources section of the GGNRA RMP designated nine SEAs in the park.

special-status species—Plant and animal species federally or state listed as endangered or threatened, or otherwise judged to be in need of protection. The biological assessment for GGNRA lists well over 100 special-status species that are known to occupy the planning area.

stakeholder organization—Groups of interested parties. As part of its outreach activities, the park would consider setting up regularly scheduled meetings of stakeholder organizations for information sharing on dog management, posting summaries of the meetings on the park web site.

steelhead trout—*Oncorhynchus mykiss*. A federally threatened salmonid species known to inhabit the streams and lagoons in GGNRA.

stewardship—Careful and responsible management of something entrusted to one's care. One of the public suggestions resulting from the ANPR was to encourage volunteer efforts to assist in stewardship of voice and sight control dog walking areas. See **Advance Notice of Potential Rulemaking (ANPR)**.

strafe—To rake with fire at close range, especially with machine-gun fire from low-flying aircraft.

subtler experiences—Quiet, gentle sounds of nature such as lapping waves or frog choruses that may enrich the visitor experience. Such subtle experiences can be disrupted by disturbances from barking or playing dogs, changing the natural character of the area and the overall visitor experience. See **soundscapes**.

surfzone—The surf zone is the region defined by where incoming waves are breaking. Heal the Bay's Beach Report Card grades are based on daily and weekly fecal bacteria pollution levels in the surfzone.

sweathouse—Sweat lodge. There are several styles of Native American sweat lodges, from a domed or oblong hut similar to a wickiup to a simple hole dug in the ground and covered with planks or tree trunks. Stones are typically heated in an exterior fire and then placed in a central pit in the ground.

supplemental environmental impact statement—When significant new information or substantial changes to the proposed action occur that are relevant to environmental concerns, a supplemental EIS should be prepared (Council on Environmental Quality (CEQ) NEPA Regulations, 40 CFR 1502.9(c)).

Tamalpais soils—Consist of moderately deep, well-drained soils that are located on mountainous uplands. The soils have a slope of 15 to 75 percent and consist of a very gravelly loam.

tannin—An astringent, bitter plant polyphenol. Found in abundance in redwood bark, it protects the trees from fire, insects, and bacteria.

taxonomic group—A way of classifying plants and animals that are biologically related. Taxonomic groups include rankings such as kingdom, phylum, class, and so on. For instance, a subspecies is a taxonomic group (or rank) that is a division of a species.

temporal—Time-based. Dog walking may need to be temporally restricted in certain areas to avoid conflicts.

terns—Seabirds in the family Sternidae. The shoreline of San Francisco Bay provides feeding, breeding, roosting, and wintering habitat for terns, among other bird species.

terrestrial habitats—Land habitats, as distinct from freshwater and marine habitats.

therapeutic value—Peace of mind arising from the knowledge that their dogs had been well exercised, according to some respondents to the ANPR.

tidal lagoon—Any lagoon in which a rise and fall of the water level takes place as a result of the action of the tides. An example of marine or estuarine resources at GGNRA that may be adversely affected by dog waste.

tidelands—The territory between the high and low water tide line of sea coasts, and lands lying under the sea beyond the low water limit of the tide, considered within the territorial waters of a nation.

tidewater goby—*Eucyclogobius newberryi*; federally listed as endangered, the tidewater goby is a small fish that inhabits coastal brackish water habitats entirely within California. In GGNRA it is known to occur in Rodeo Lagoon, and critical reproductive habitat for the goby is at risk from disturbance or destruction by dog play in the water.

topography—The configuration of a surface including its relief and the position of its natural and man-made features. Some dog play areas in San Francisco use topography or shrubbery as natural barriers.

trail corridor—The area immediately surrounding and including the trail; invariably wider than the trail itself. Various factors influence the width of the trail corridor, including safety considerations, jurisdictional issues, and topography.

Trail Keepers—A volunteer stewardship program that is part of the Trails Forever initiative. One of the volunteer groups who would participate in the outreach program to educate and inform the public about the new dog management regulation.

Trailhead Area Leash Program—The City of Boulder Open Space and Mountain Parks agency, which allows extensive off leash opportunities for dogs, instituted this program requiring dogs to be walked on leash at trailheads to reduce conflicts at trailheads between users with dogs and users without dogs.

turbidity—Quality of being thick or opaque with roiled sediment. Dogs playing in streams, wetlands, lagoons, and coastal areas can increase turbidity, disrupting fish feeding and reducing the numbers and diversity of benthic fauna.

tussock—A small hillock of grassy or grass-like plant growth.

understory—Layer of vegetation between the forest canopy (or top shrub layer) and the groundcover. Understory is an important wildlife habitat component of many tree- and shrub-dominated plant communities within GGNRA. Unleashed dogs running into the understory may adversely affect the structure of the plant community and reduce its value as wildlife habitat.

unrestricted environment—The VSCAs would allow dogs to enjoy exercise and socialization in an unrestricted environment.

urbanized—Having taken on the characteristics of a city; nonrural. Because the San Francisco Bay Area is highly urbanized, dog owners may have access to few outdoor areas for exercising their pets; consequently, using GGNRA lands for dog walking is important to residents.

U.S. Department of Agriculture’s Natural Resources Conservation Service. An agency that provides technical assistance to farmers and other private landowners and managers, including classifying prime and important farmlands. None of the soils at the GGNRA sites would qualify as prime or unique farmlands. Therefore, this topic has been dismissed from further analysis in the plan/EIS.

U.S. Department of the Interior—The U.S. federal executive department responsible for the management and conservation of most federal land and the administration of programs relating to Native Americans, Alaska Natives, and Native Hawaiians, and to insular areas of the United States. Its operating units include the Bureau of Indian Affairs, Bureau of Land Management, National Park Service, U.S. Fish and Wildlife Service, and U.S. Geological Survey.

U.S. Institute for Environmental Conflict Resolution—The 1998 Environmental Policy and Conflict Resolution Act (PL 105-156) created the Institute to assist parties in resolving environmental conflicts around the country that involve federal agencies or interests, helping them resolve federal environmental, natural resources, and public lands disputes in a timely and constructive manner through assisted negotiation and mediation.

U.S. Magistrate’s uniform bail schedule—The uniform bail schedule lists fines for all dog-related violations as established by the U.S. Magistrate.

Vegetation Stewardship Program—Coordinates habitat restoration activities in over 2,500 acres of the park. The habitat restoration component of the Vegetation Stewardship Program currently consists of four key program elements: the Site Stewardship Program, the Presidio Park Stewards, the Habitat Restoration Team, and the Invasive Plant Patrol.

vigilant—Watchful; alert. Habituation to activity may result in western snowy plover adults becoming less vigilant, which then increases the potential for predation of eggs and nestlings by opportunistic predators.

visitor amenities—Such services as visitor parking, visitor centers, etc. The area at Lands End near the restored Coastal Trail is being developed with visitor amenities that would further increase visitation and use.

voice and sight control—A dog is under voice and sight control if the dog is within direct eyesight of the dog walker and the dog walker is able to both immediately recall the dog directly to the dog walker's side and attach the leash to the dog, regardless of circumstances or distractions. Dog walkers must be able to demonstrate this ability when requested to do so by a person authorized to enforce the dog walking rule.

voice control—Under the 1979 pet policy, suitable locations were set forth for on-leash dog walking areas and off leash, or voice control, areas.

water contamination—Contamination of a waterbody by introduction of microorganisms by dogs, wild birds, and wild mammals.

waterbird—A swimming or wading bird. In habitat for resting and feeding waterbirds, restrictions on pets provide important areas of reduced disturbance for these activities.

waterbodies—A body of water, such as a lagoon or stream.

watercourses—Streams of water (rivers, brooks, underground streams, etc.). Emergent aquatic vegetation along the edge of watercourses provides critical habitat for some listed species, and disturbance of this vegetation from dog play could compromise its value to wildlife.

waterfronts—Land bordering large bodies of water, e.g., oceans and lakes.

wetlands—Lands transitional between terrestrial and aquatic systems, where the water table is usually at or near the surface or the land is covered by shallow water. Wetlands provide wildlife habitat and help to moderate flooding and pollution, and are vulnerable to adverse effects from intensive dog use.

Wild and Scenic Rivers Act of 1968—Established the national wild and scenic river system to protect the nation's highest quality natural rivers.

wintering habitat—Areas used by migratory birds during the winter; birds often return to the same wintering grounds year after year. The shoreline of the San Francisco Bay provides wintering habitat to thousands of birds each year.



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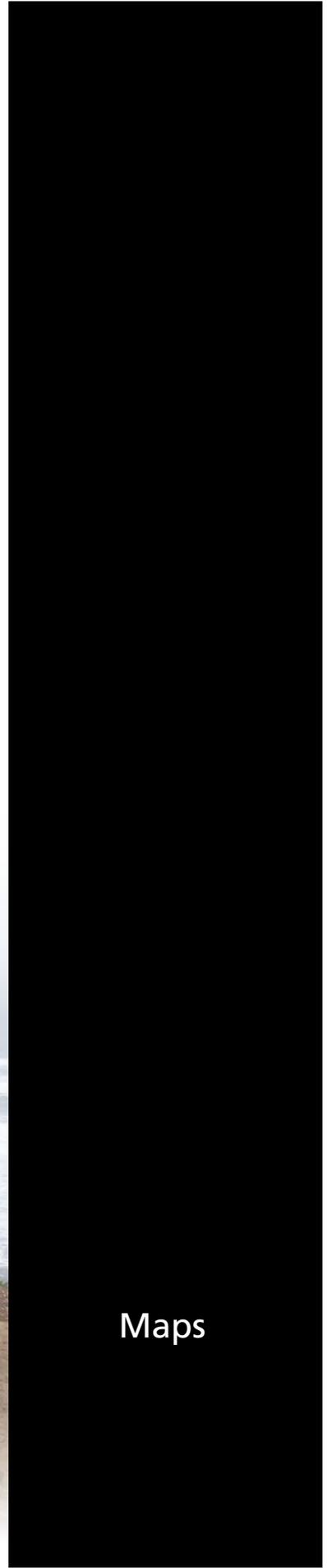
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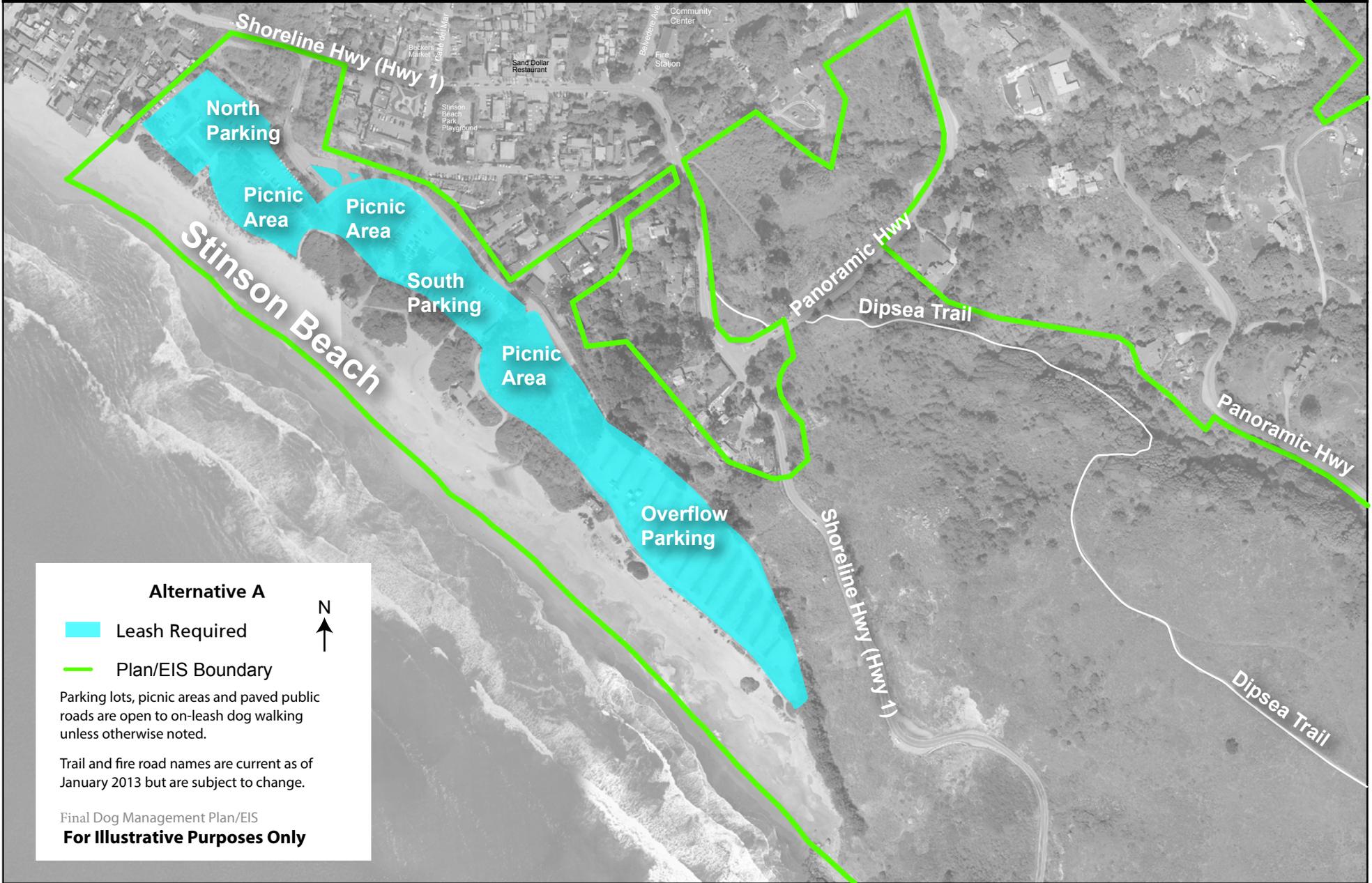
Maps



	GGNRA Boundary
	GGNRA Managed Lands
	State Parks
	County Parks
	City Parks
	Non Profit
	Special District
	GGNRA sites addressed by the dog management plan.
	Highway / Interstate
	Streets and Roads

June 2013

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Alternative A

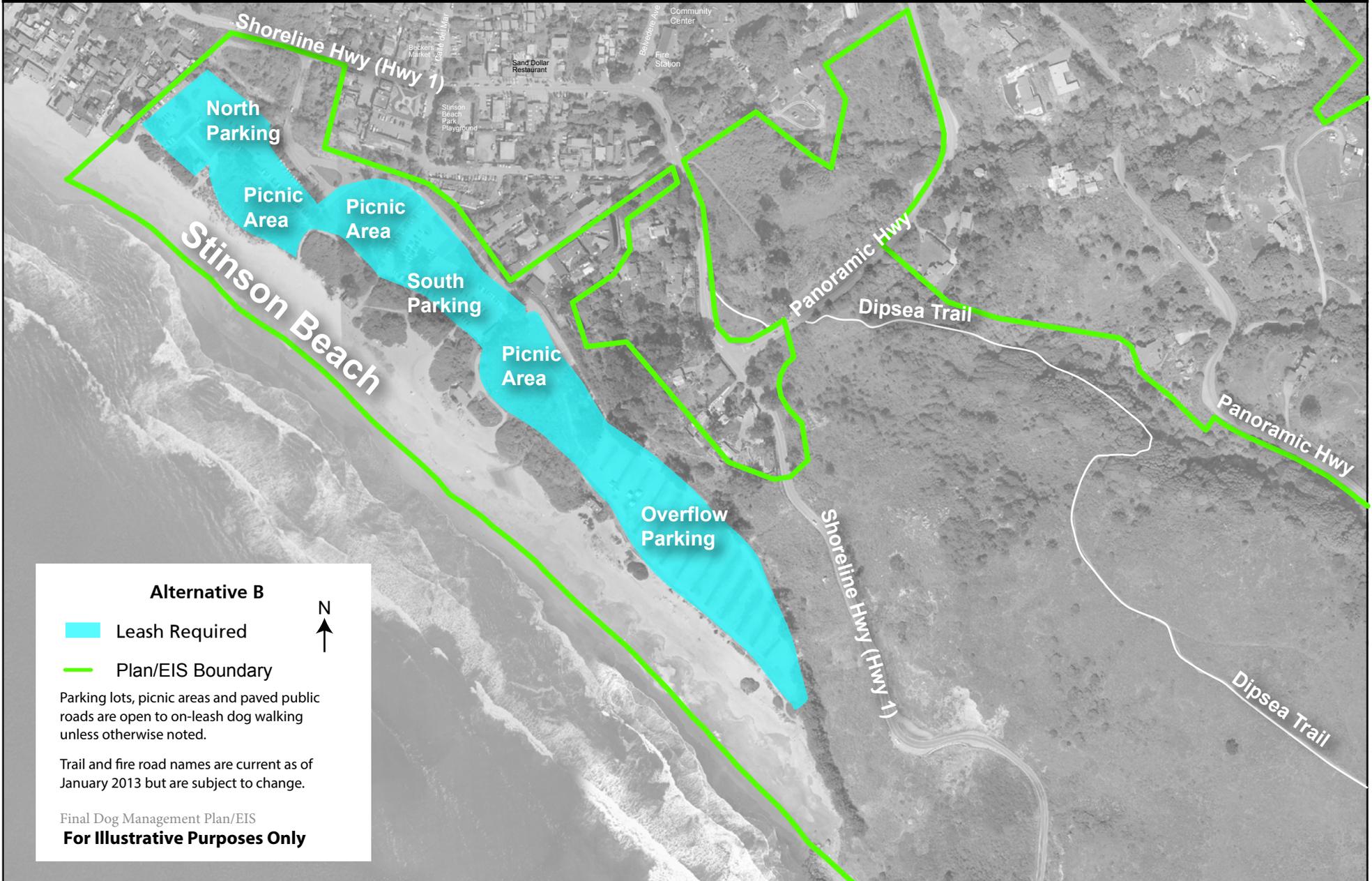
- Leash Required
- Plan/EIS Boundary

Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

Trail and fire road names are current as of January 2013 but are subject to change.

Final Dog Management Plan/EIS
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Alternative B

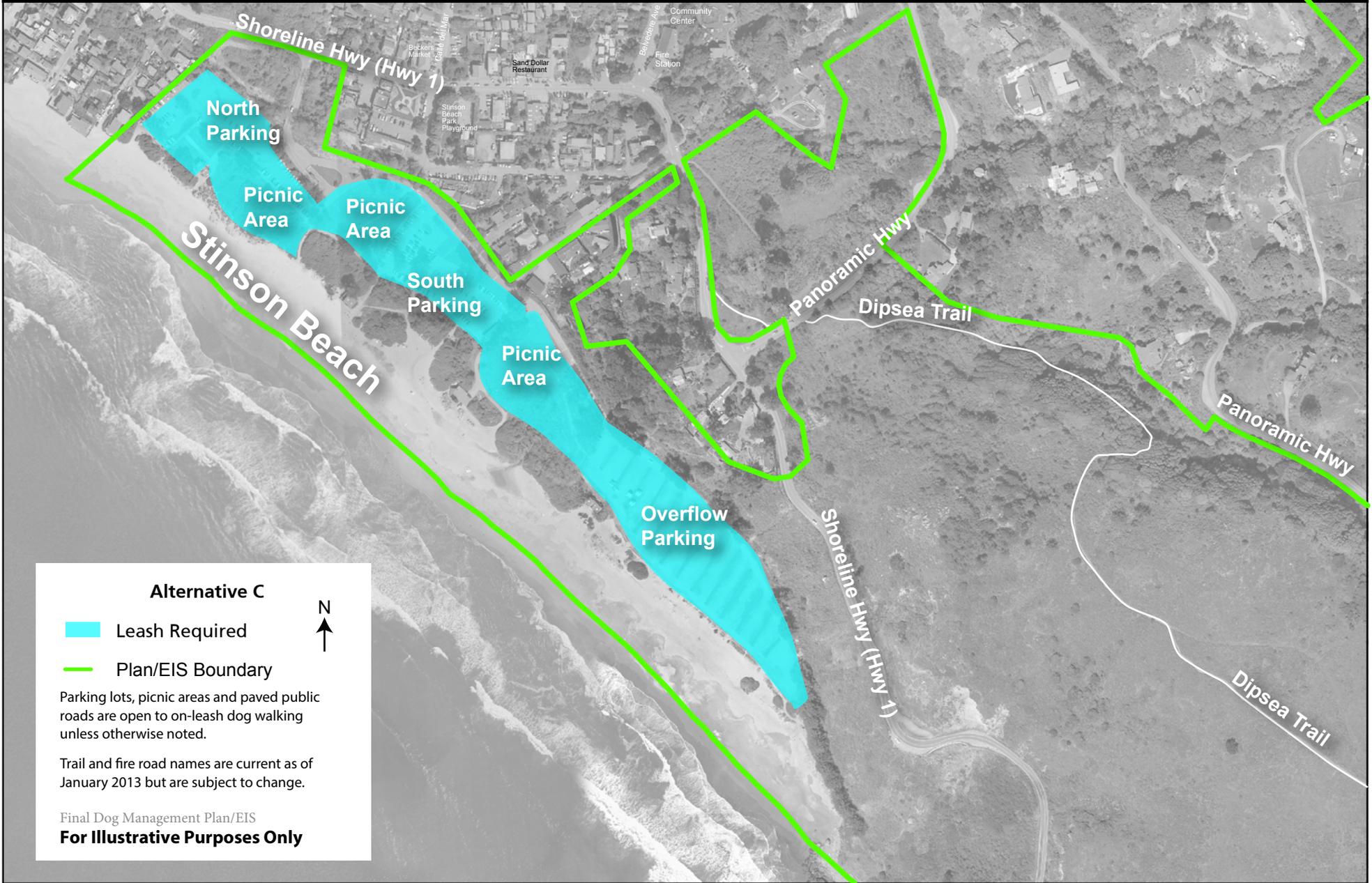
- Leash Required
- Plan/EIS Boundary



Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

Trail and fire road names are current as of January 2013 but are subject to change.

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Alternative C

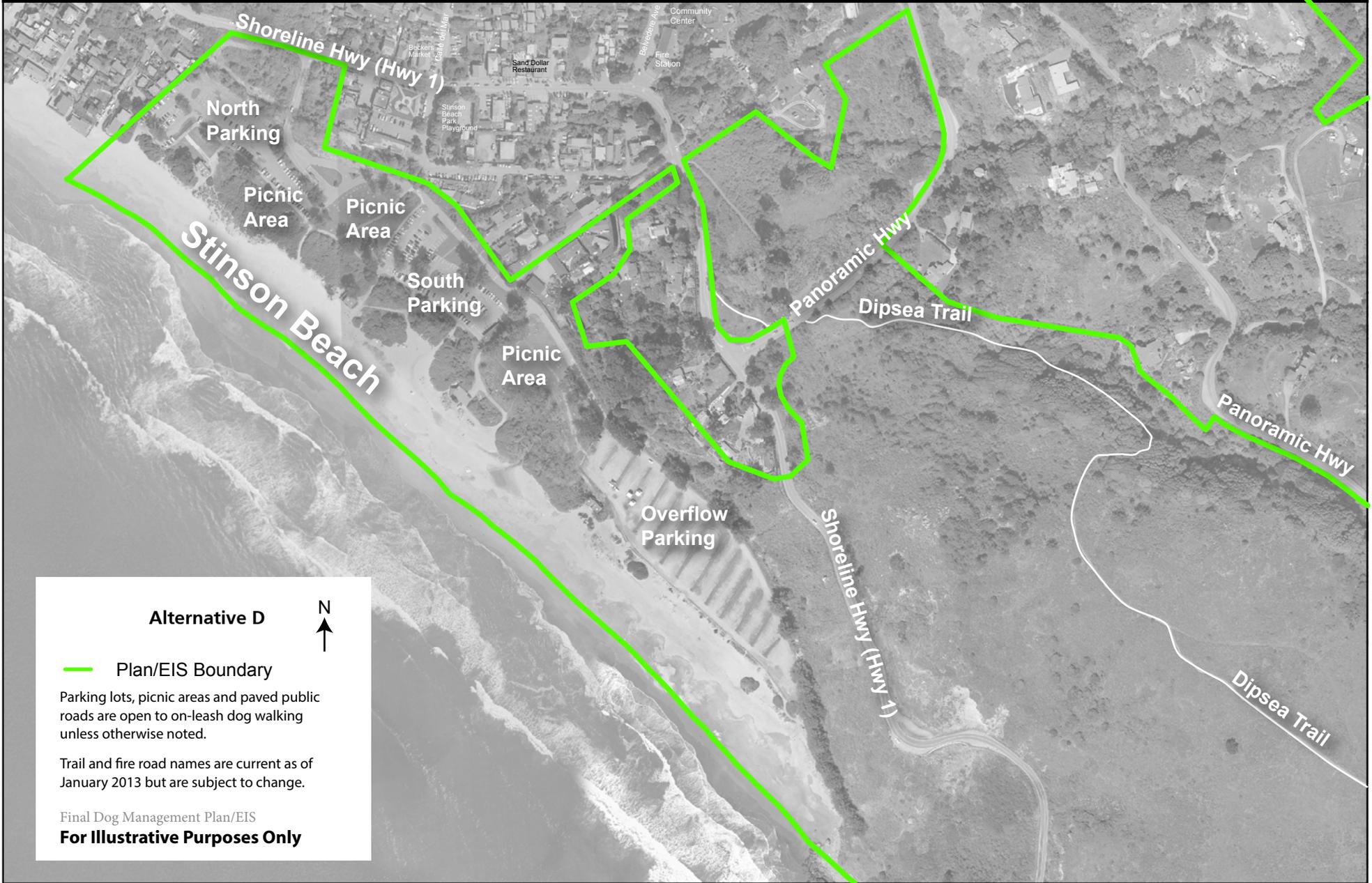
- Leash Required
- Plan/EIS Boundary

Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

Trail and fire road names are current as of January 2013 but are subject to change.

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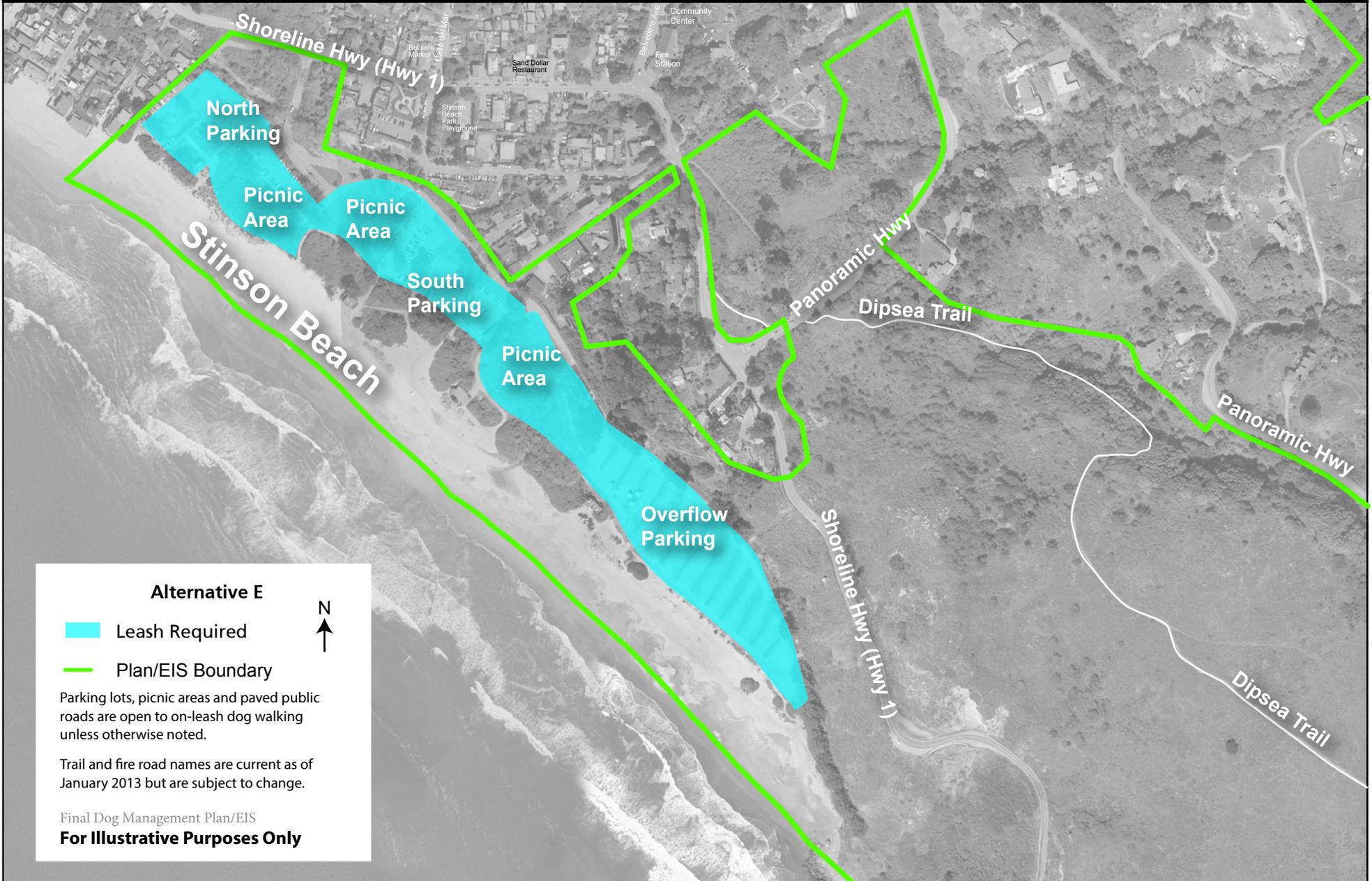
Alternative D

— Plan/EIS Boundary

Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

Trail and fire road names are current as of January 2013 but are subject to change.

Final Dog Management Plan/EIS
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Alternative E

- Leash Required
- Plan/EIS Boundary



Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

Trail and fire road names are current as of January 2013 but are subject to change.

Final Dog Management Plan/EIS
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Map 2-F: Stinson Beach

Golden Gate National Recreation Area

National Park Service
U.S. Department of the Interior



Alternative F

- Leash Required
- Leash Required (planned trail)
- Plan/EIS Boundary

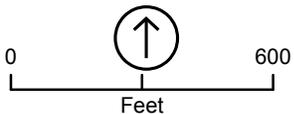
Dog walking allowed only in areas designated for on-leash.

Parking lots, sidewalks and paved public roads are open to on-leash dog walking unless posted.

Trails shown are only official NPS trails and names are current as of 8/2015.

Former trail, road and feature names are in parens.

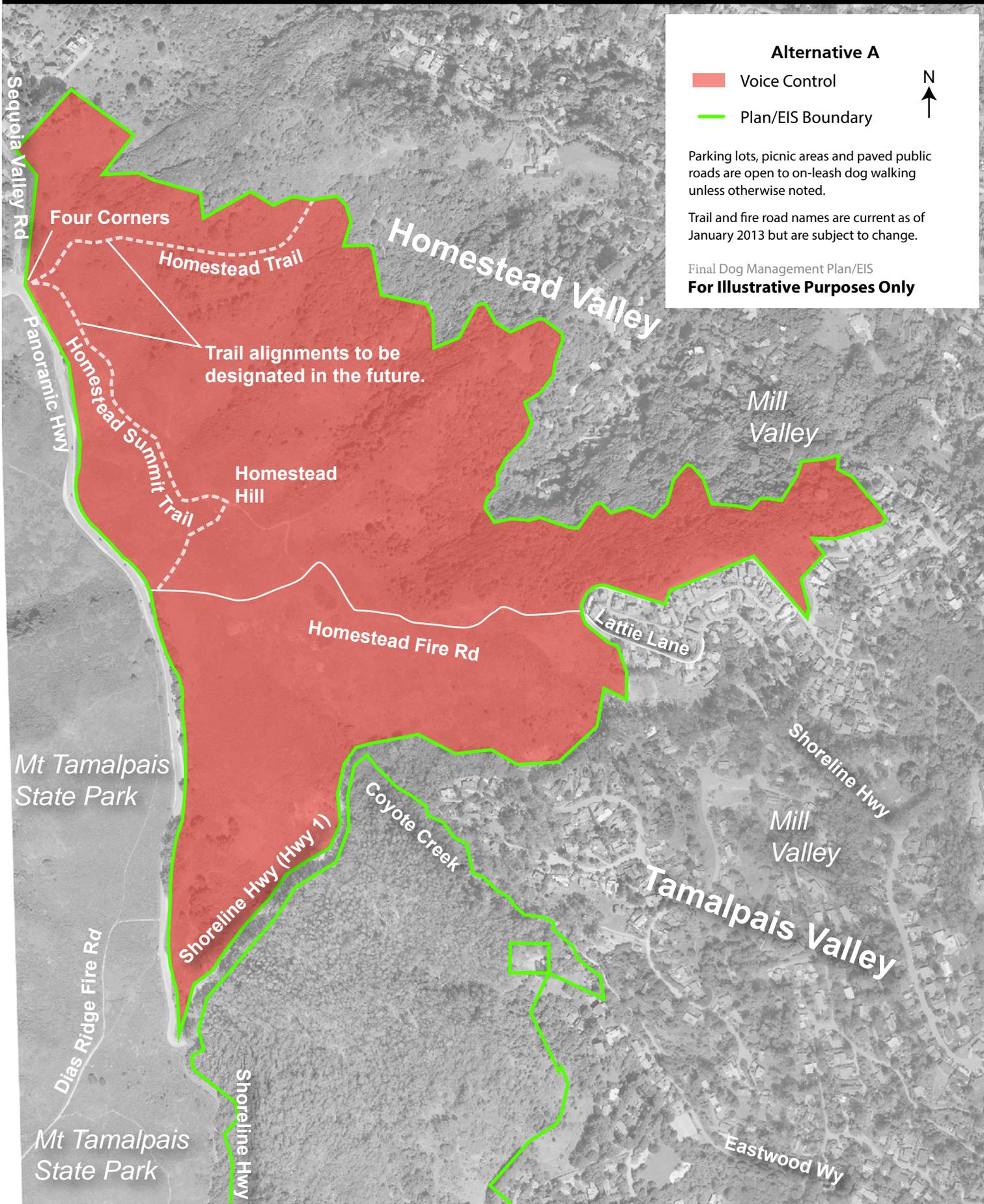
* Trail alignment may be adjusted based on further design and engineering.



Final Dog Management Plan/EIS

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Map 3-A: Homestead Valley



Alternative A

 Voice Control

 Plan/EIS Boundary



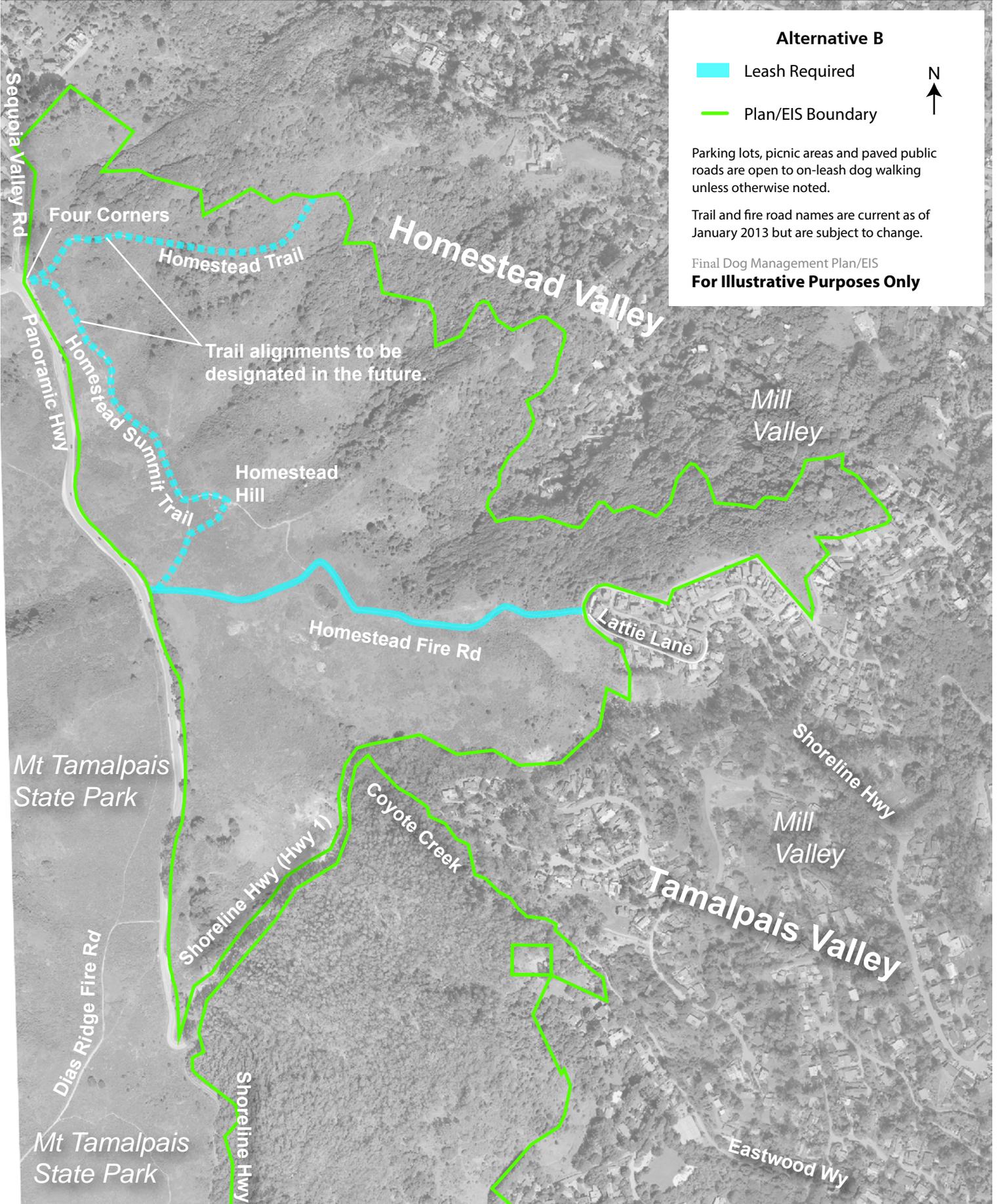
Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

Trail and fire road names are current as of January 2013 but are subject to change.

Final Dog Management Plan/EIS
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Trail alignments to be designated in the future.

Map 3-B: Homestead Valley



Alternative B

- Leash Required
- Plan/EIS Boundary

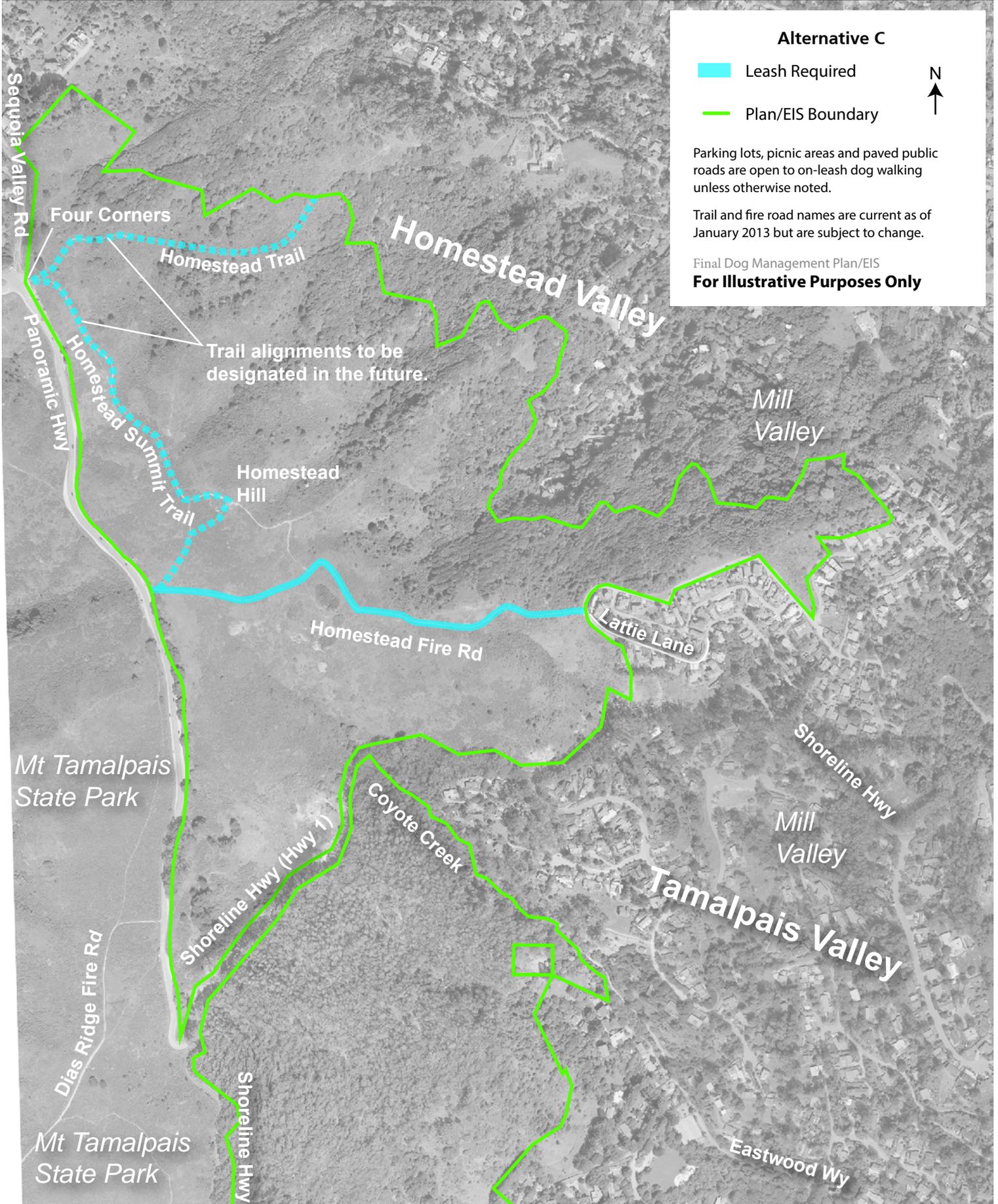


Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

Trail and fire road names are current as of January 2013 but are subject to change.

Final Dog Management Plan/EIS
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Map 3-C: Homestead Valley



Alternative C

-  Leash Required
-  Plan/EIS Boundary



Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

Trail and fire road names are current as of January 2013 but are subject to change.

Final Dog Management Plan/EIS
For Illustrative Purposes Only

Trail alignments to be designated in the future.

Mt Tamalpais State Park

Mt Tamalpais State Park

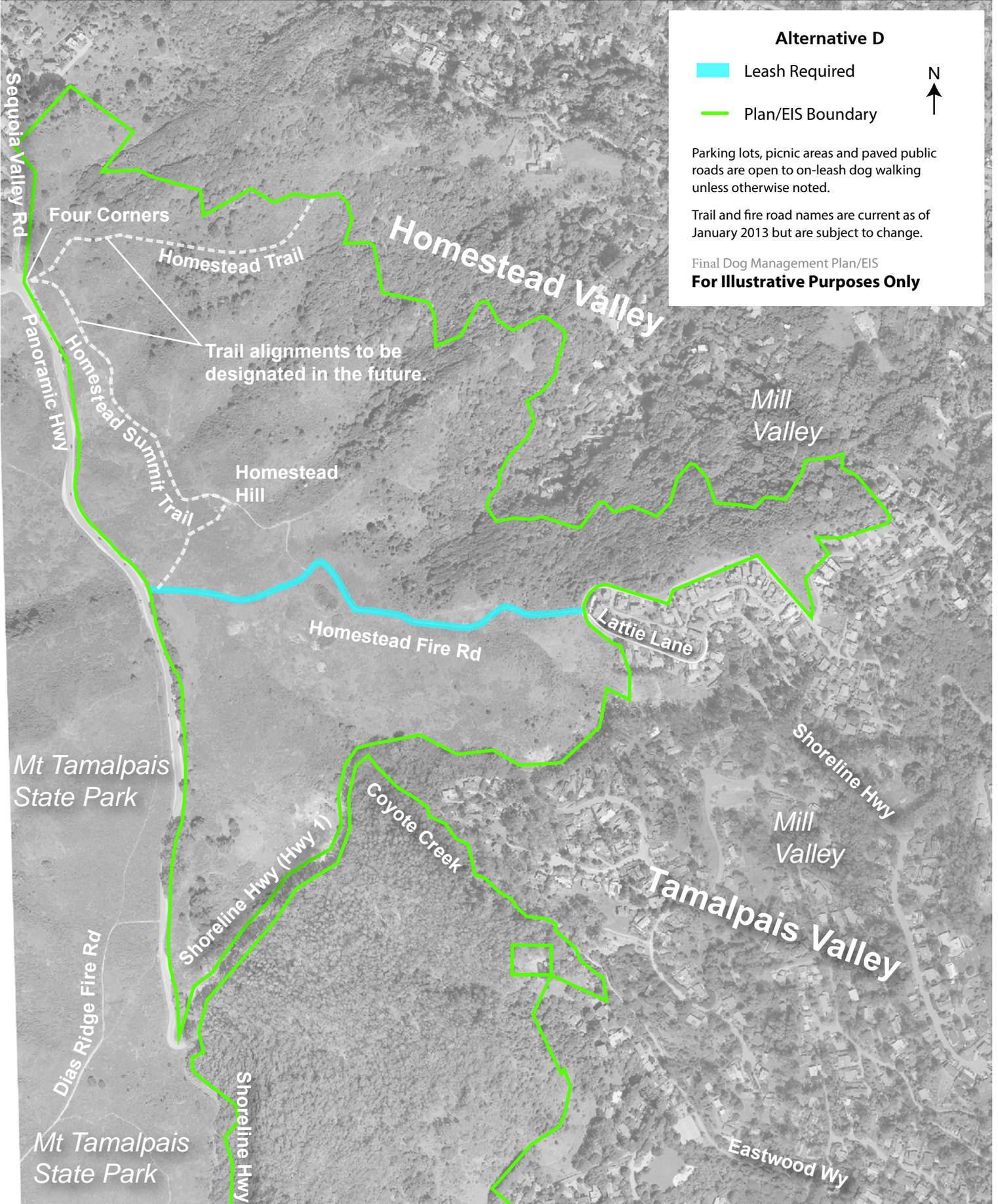
Mill Valley

Mill Valley

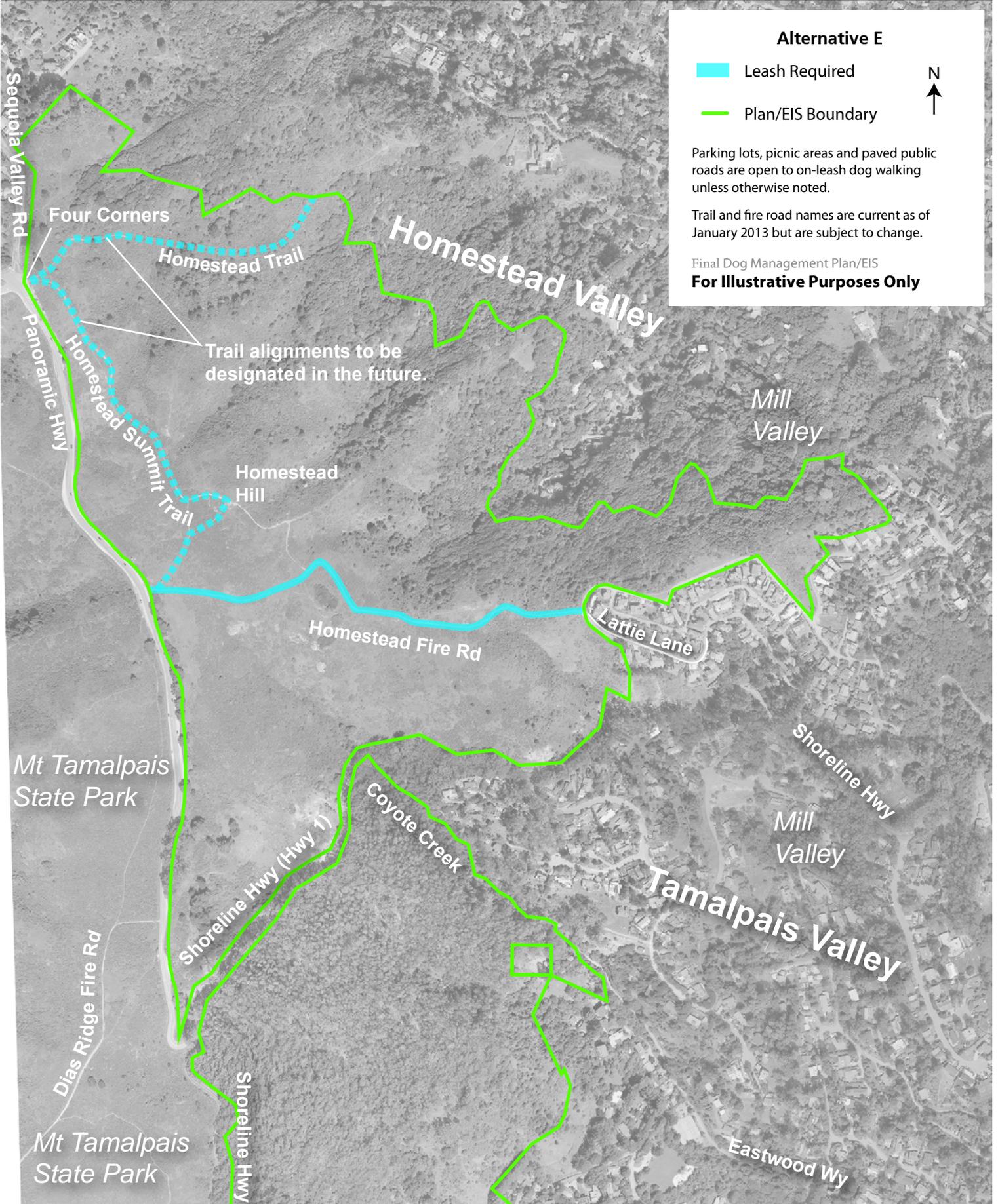
Tamalpais Valley

Eastwood Wy

Map 3-D: Homestead Valley



Map 3-E: Homestead Valley



Alternative E

-  Leash Required
-  Plan/EIS Boundary



Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

Trail and fire road names are current as of January 2013 but are subject to change.

Final Dog Management Plan/EIS
For Illustrative Purposes Only

Trail alignments to be designated in the future.

Sequoia Valley Rd

Four Corners

Homestead Trail

Homestead Valley

Mill Valley

Homestead Hill

Homestead Summit Trail

Homestead Fire Rd

Lattie Lane

Mt Tamalpais State Park

Shoreline Hwy

Mill Valley

Coyote Creek

Tamalpais Valley

Dias Ridge Fire Rd

Shoreline Hwy (Hwy 1)

Shoreline Hwy

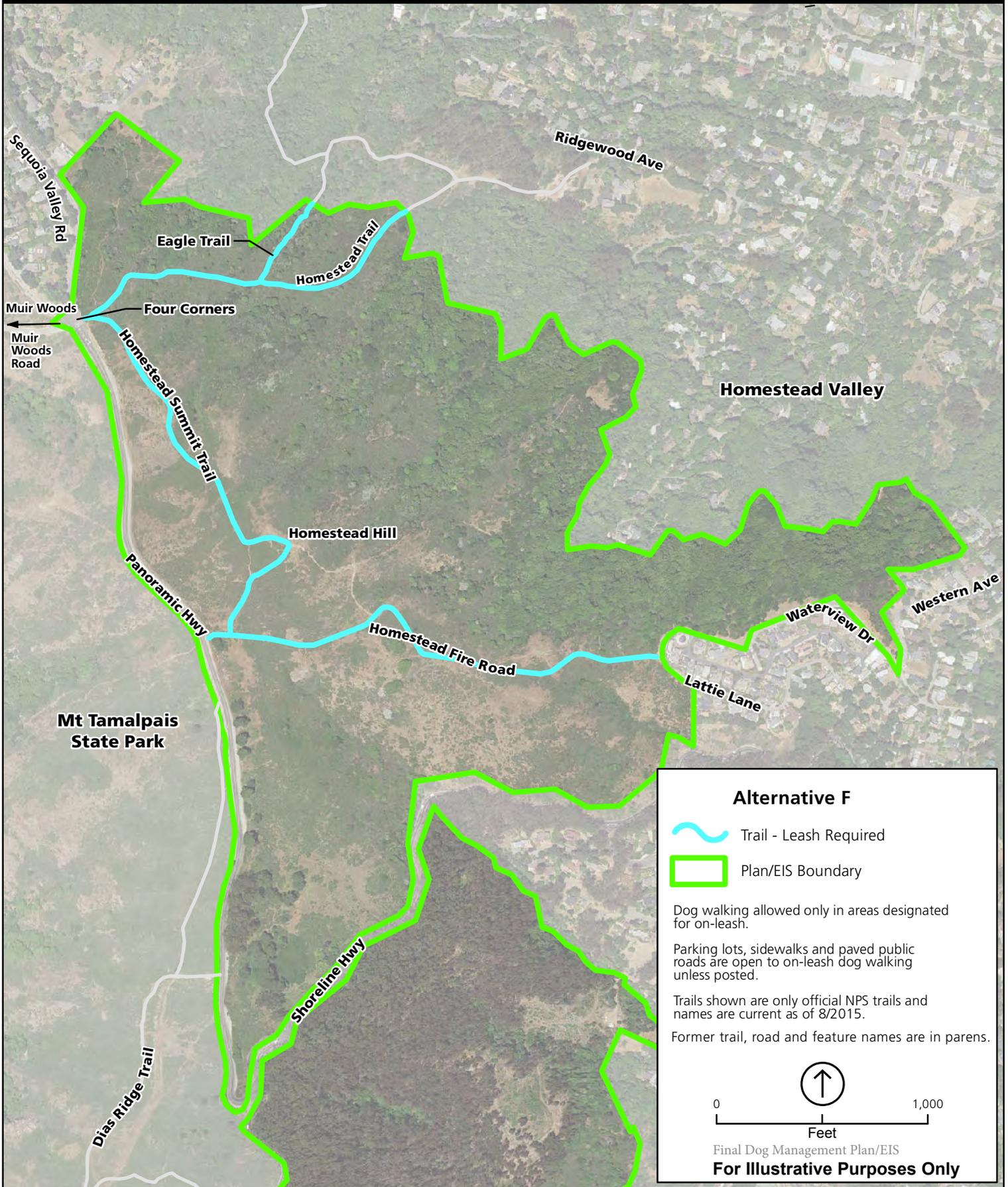
Mt Tamalpais State Park

Eastwood Wy

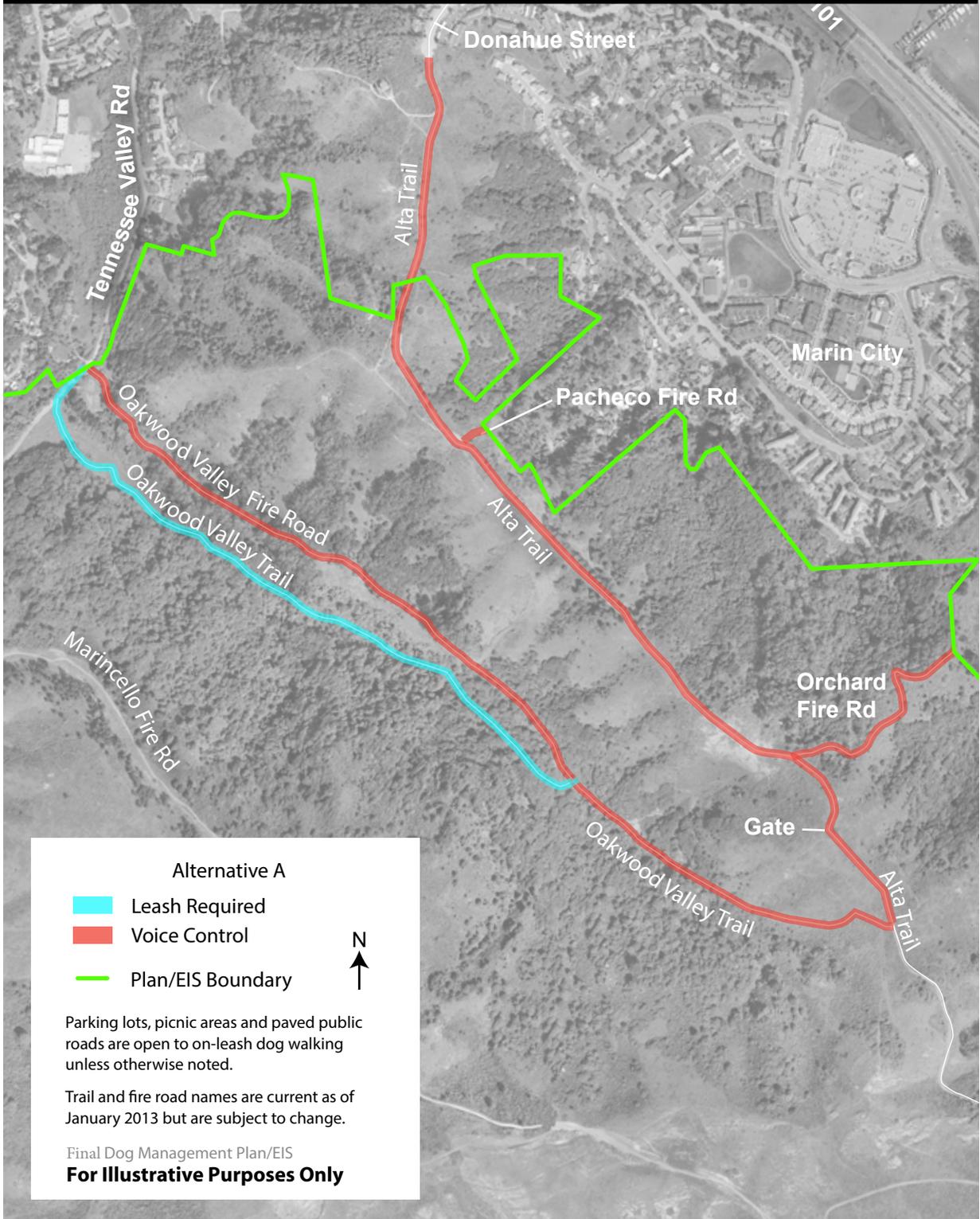
Map 3-F: Homestead Valley

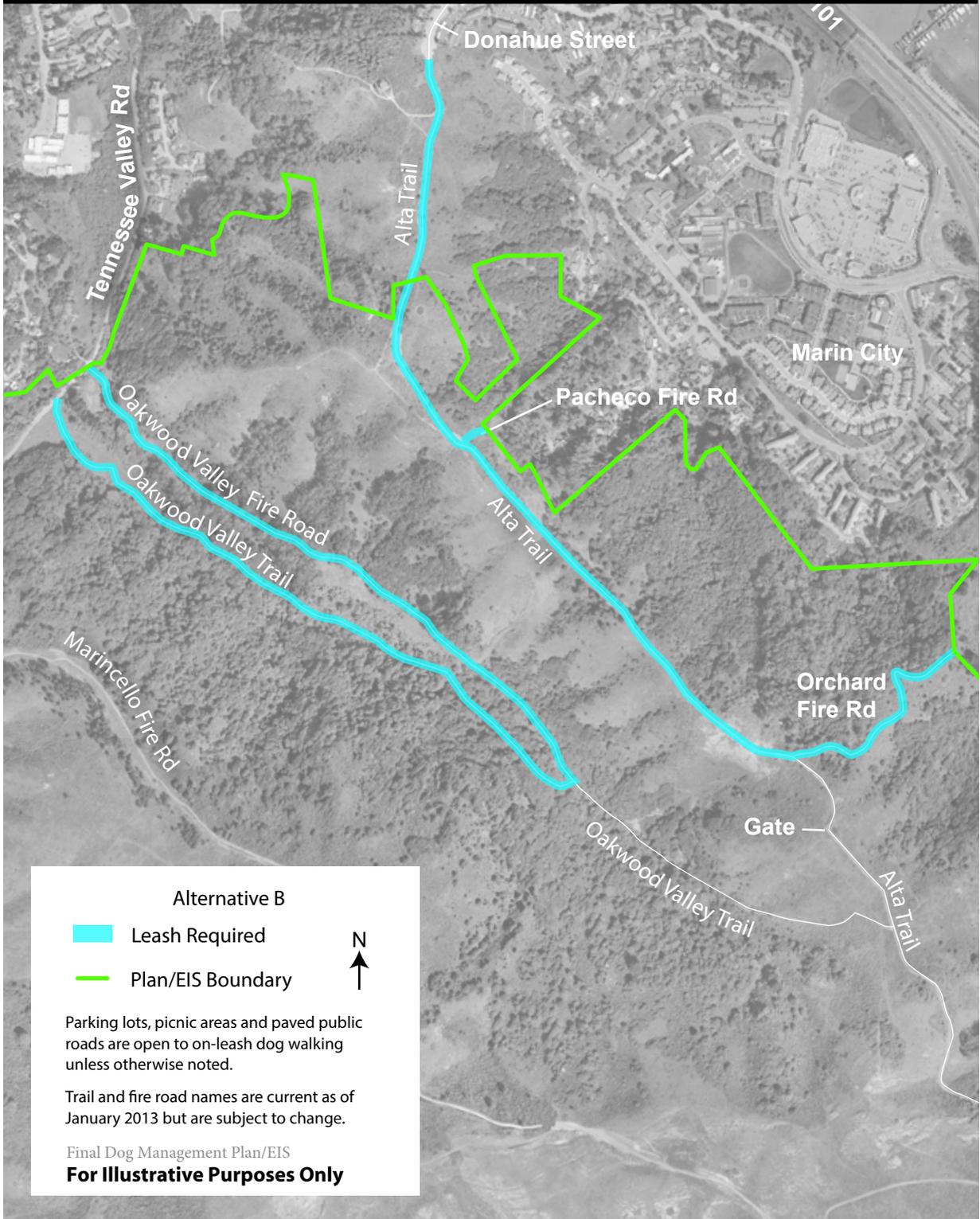
Golden Gate National Recreation Area

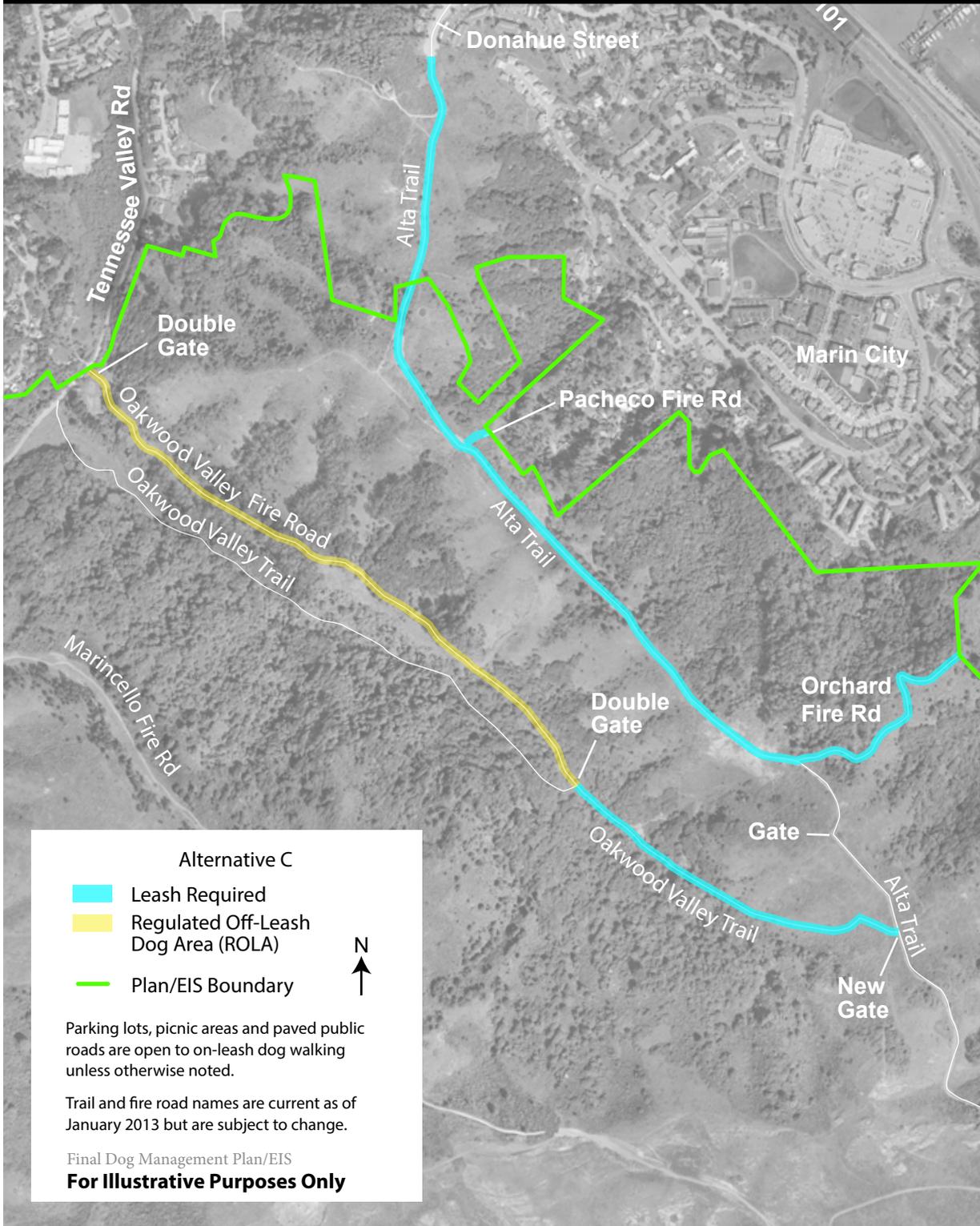
National Park Service
U.S. Department of the Interior



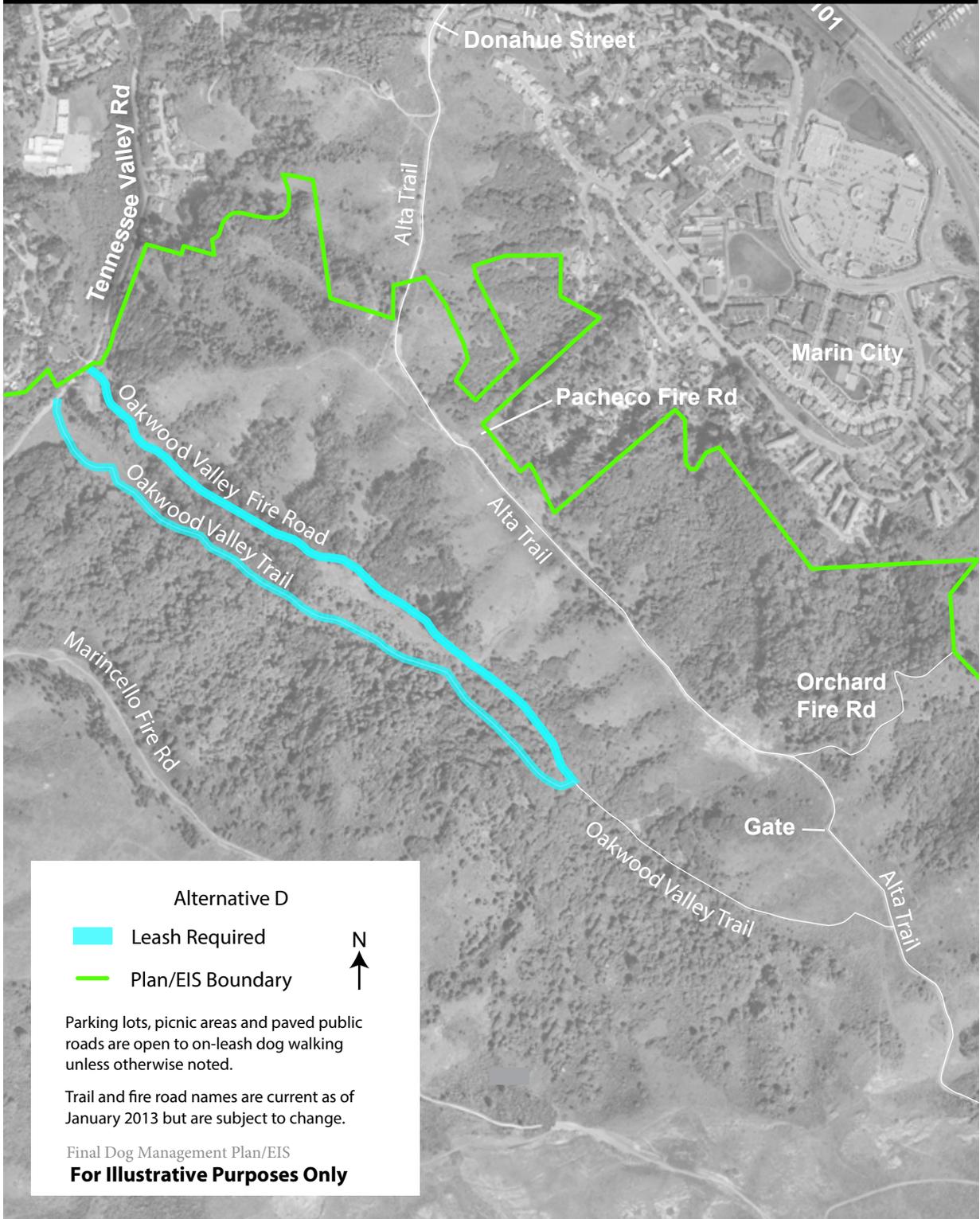
Map 4-A: Oakwood Valley / Alta Trail



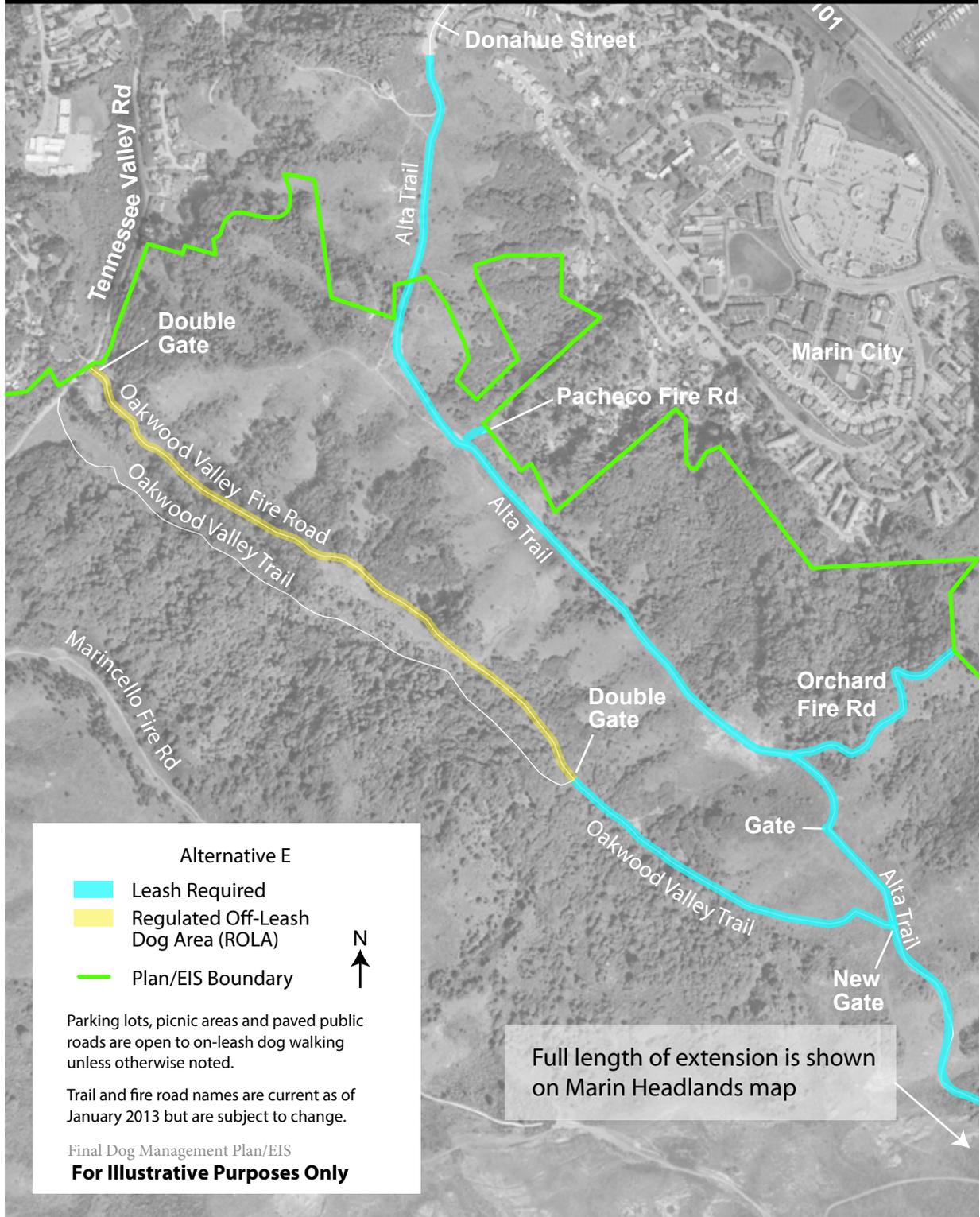




Note: The term Regulated Off-Leash Dog Area (ROLA) that was used in the draft plan/SEIS has been changed to Voice and Sight Control Area (VSCA) for the plan/FEIS.



Map 4-E: Oakwood Valley / Alta Trail

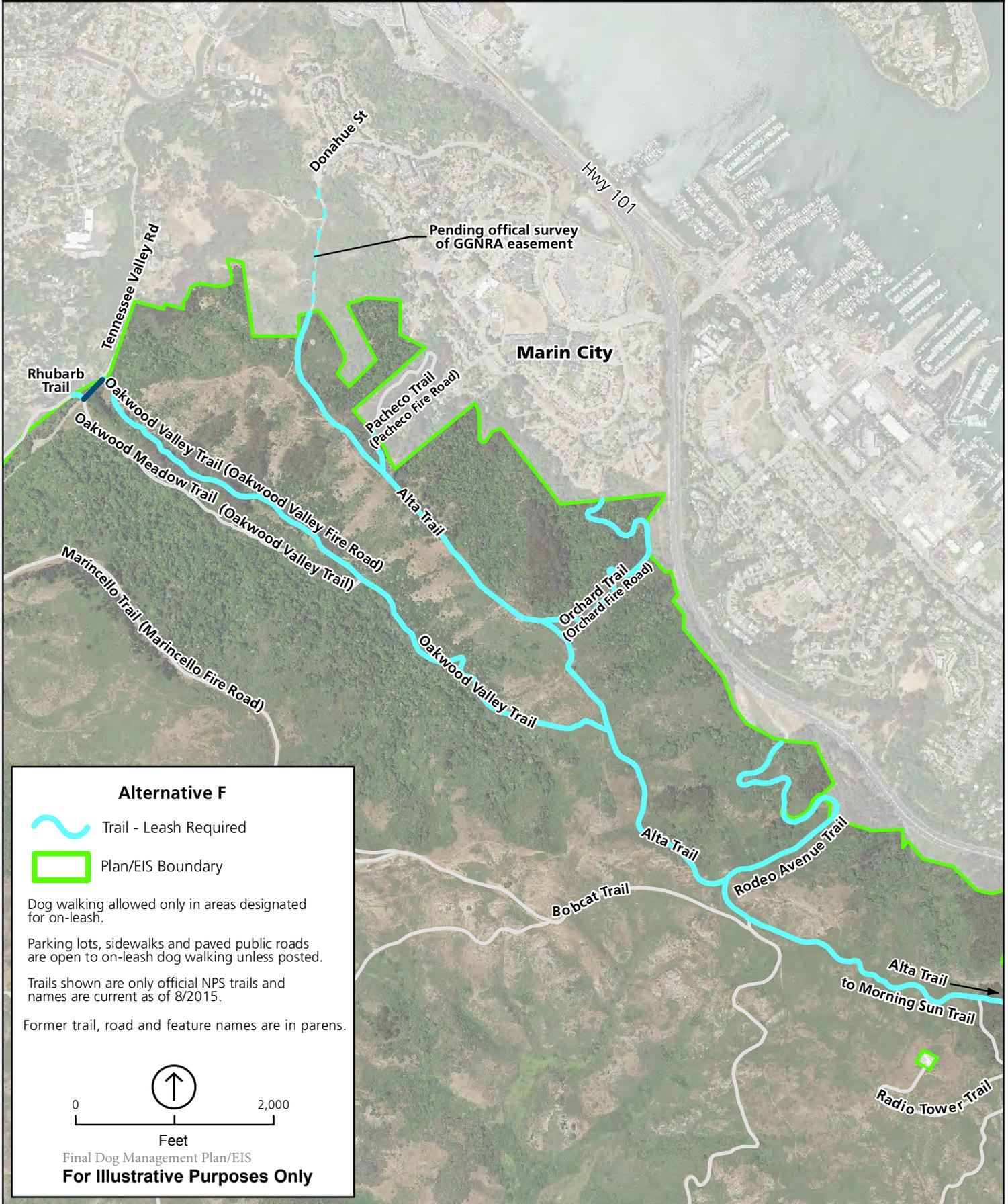


Note: The term Regulated Off-Leash Dog Area (ROLA) that was used in the draft plan/SEIS has been changed to Voice and Sight Control Area (VSCA) for the plan/FEIS.

Map 4F-1: Oakwood Valley/Alta Trail

Golden Gate National Recreation Area

National Park Service
U.S. Department of the Interior

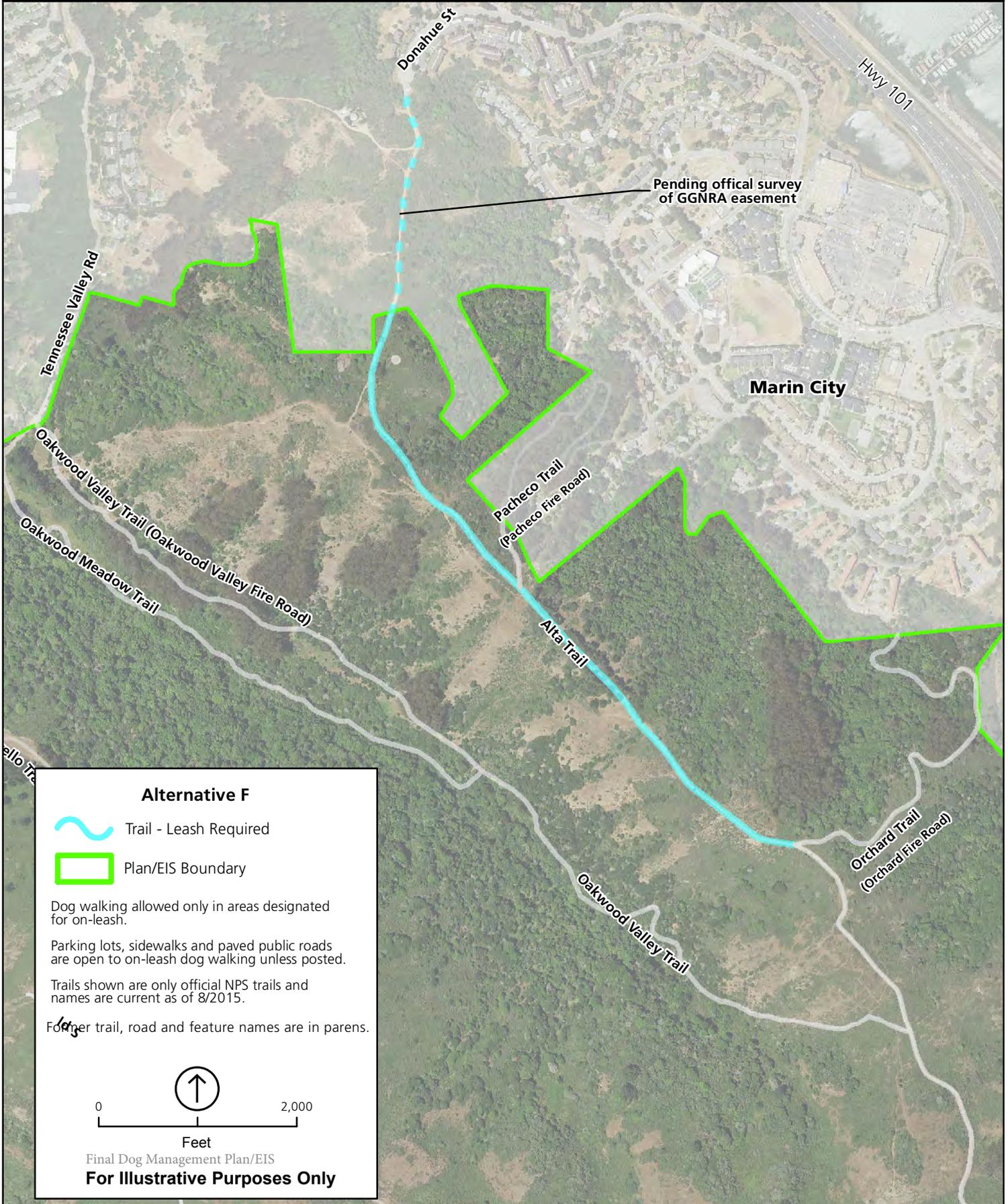


Map 4F-2: Oakwood Valley/Alta Trail

Walking 4-6 Dogs Allowed with NPS Permit

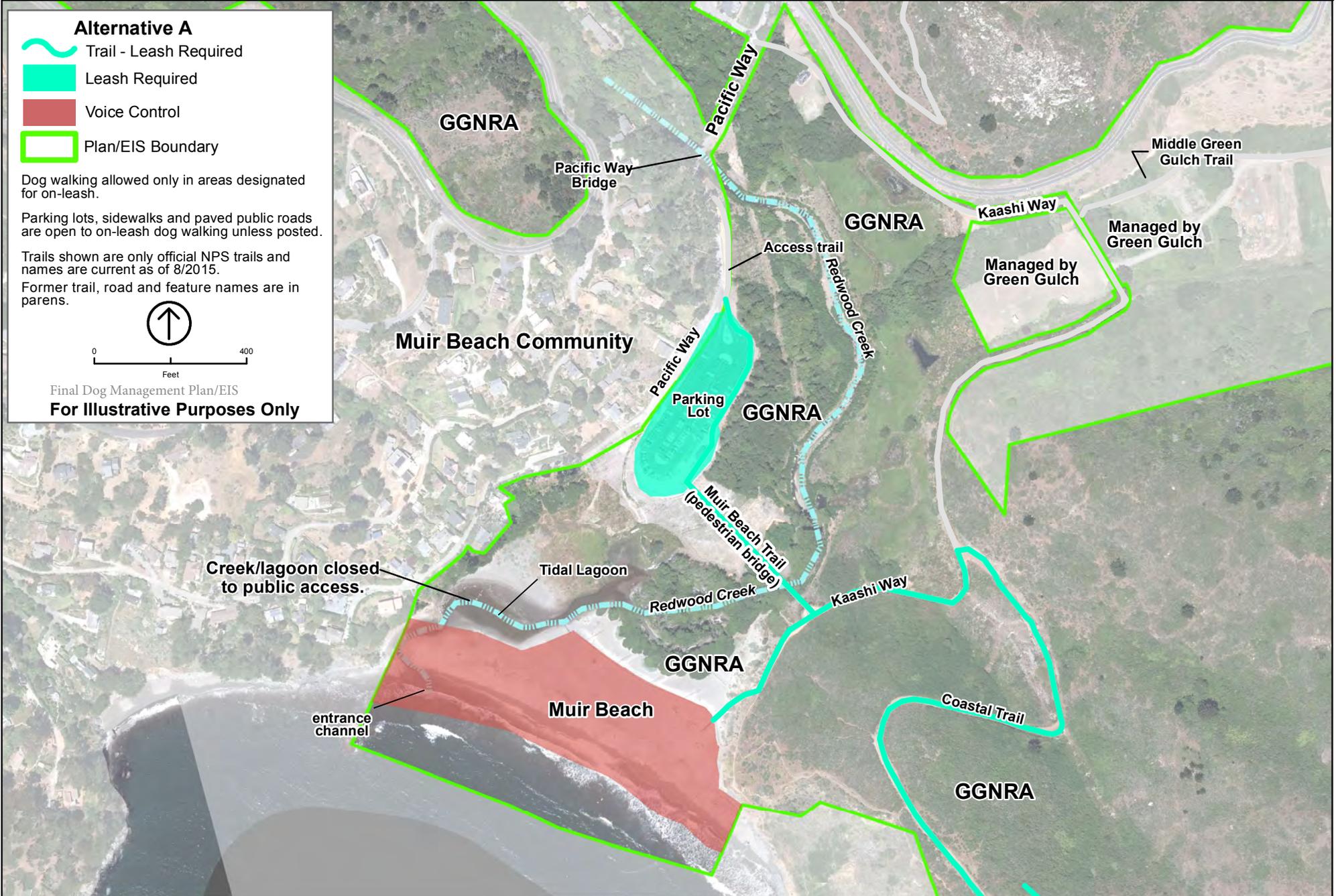
Golden Gate National Recreation Area

National Park Service
U.S. Department of the Interior



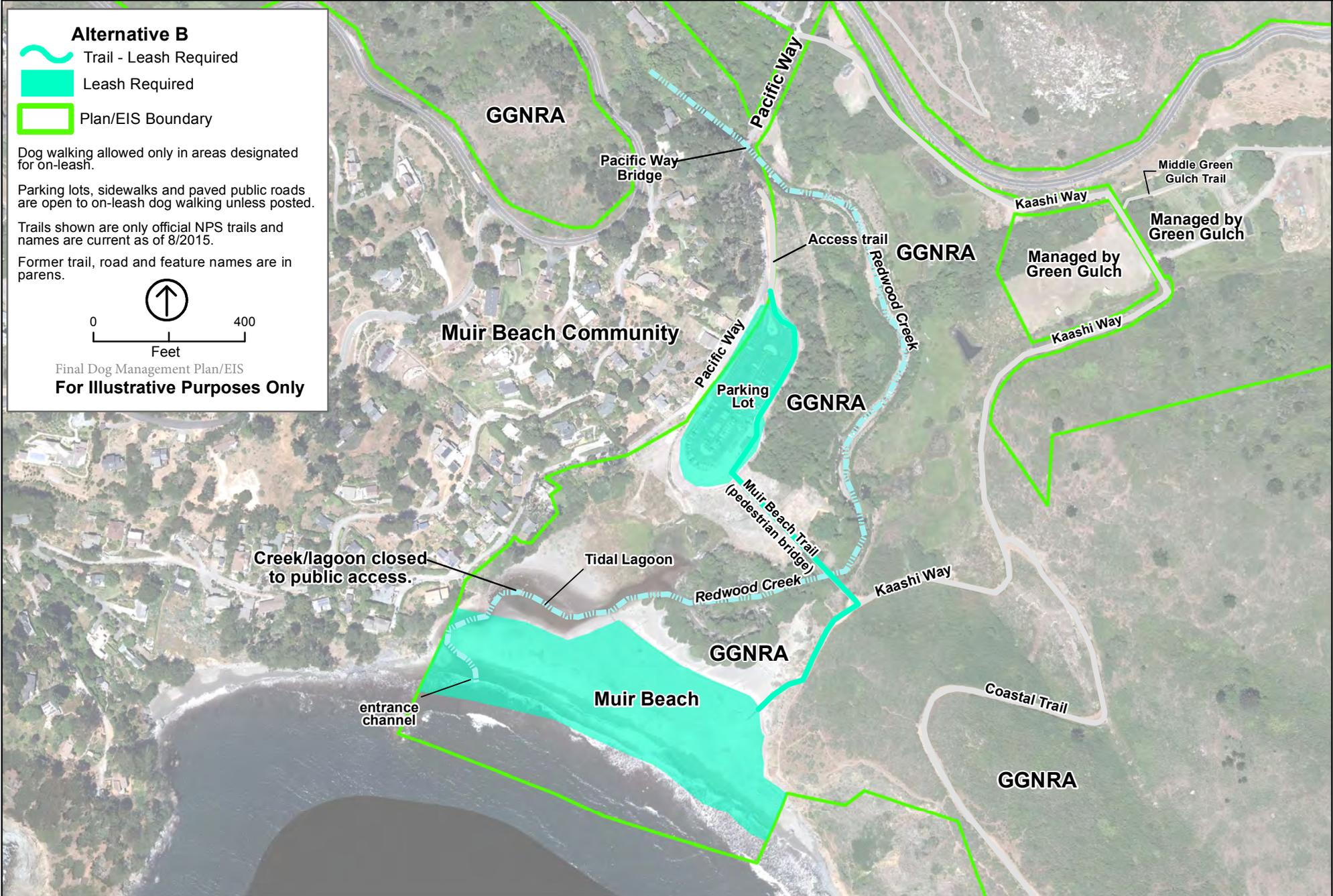


Map 5-A: Muir Beach





Map 5-B: Muir Beach





Map 5-C: Muir Beach

Alternative C

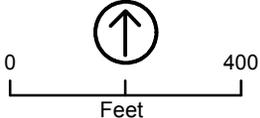
-  Trail - Leash Required
-  Leash Required
-  Plan/EIS Boundary

Dog walking allowed only in areas designated for on-leash.

Parking lots, sidewalks and paved public roads are open to on-leash dog walking unless posted.

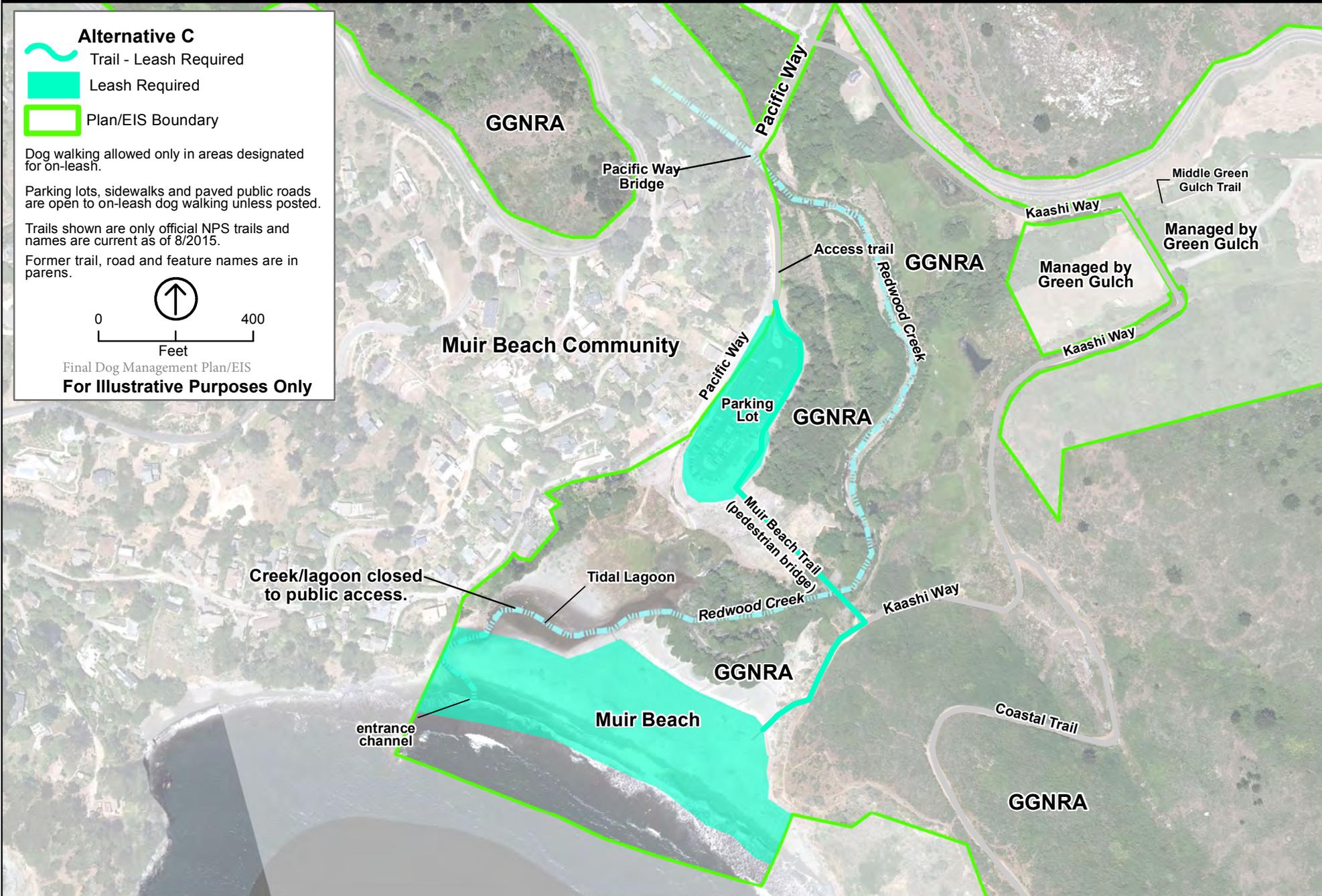
Trails shown are only official NPS trails and names are current as of 8/2015.

Former trail, road and feature names are in parens.



0 400
Feet

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Alternative D

- Trail - Leash Required
- Leash Required
- Plan/EIS Boundary

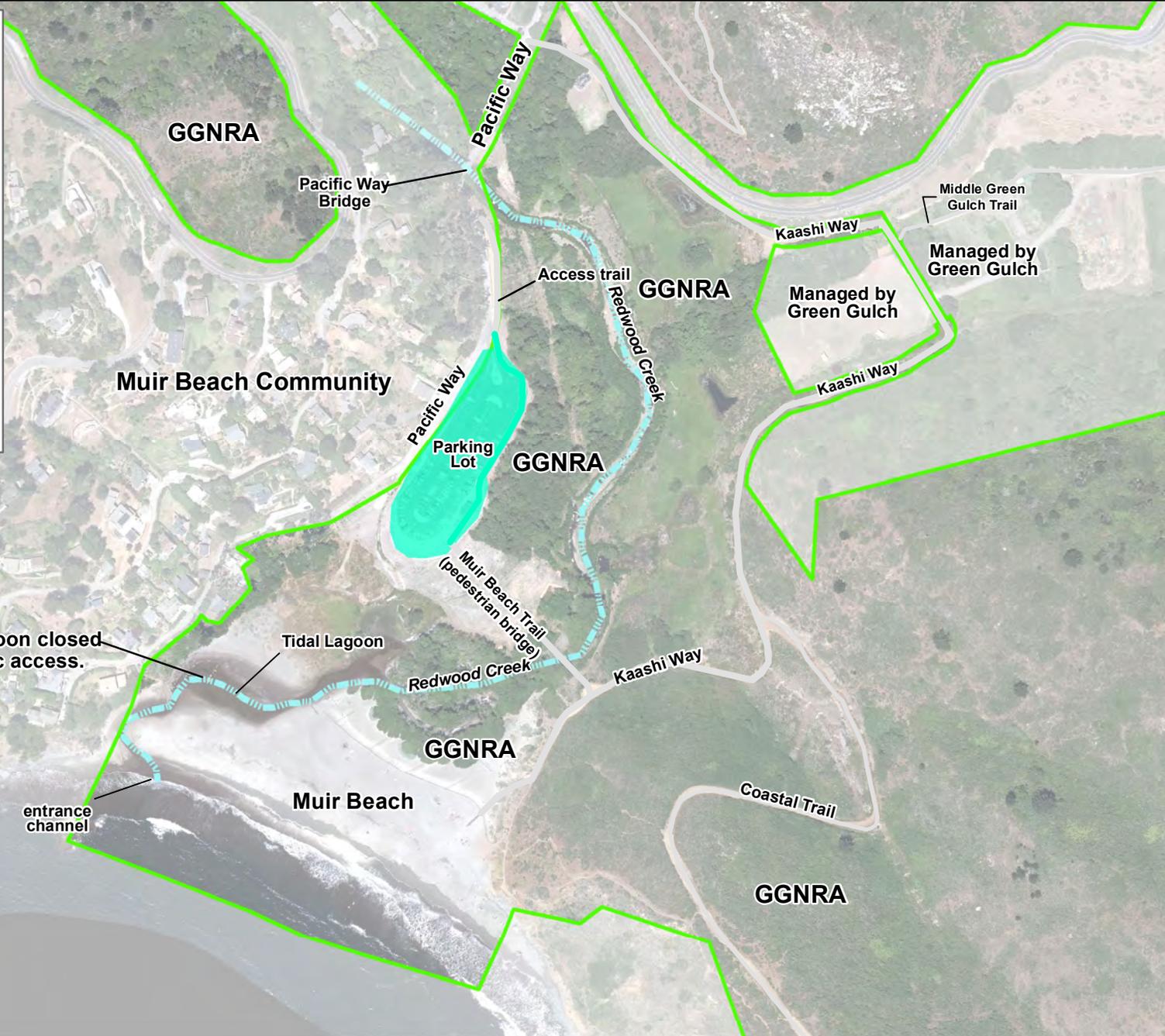
Dog walking allowed only in areas designated for on-leash.

Parking lots, sidewalks and paved public roads are open to on-leash dog walking unless posted.

Trails shown are only official NPS trails and names are current as of 8/2015.

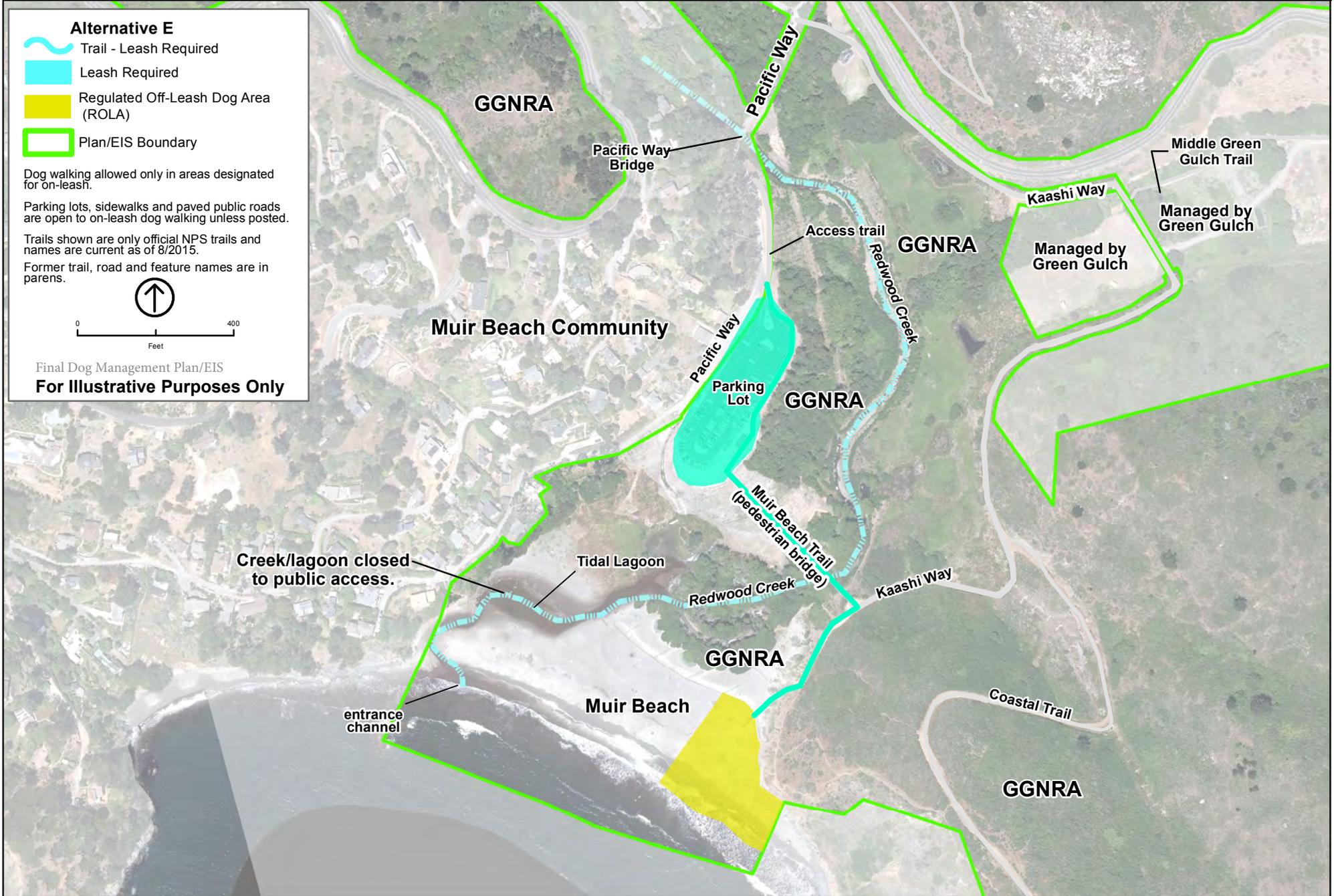
Former trail, road and feature names are in parens.

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For Illustrative Purposes Only





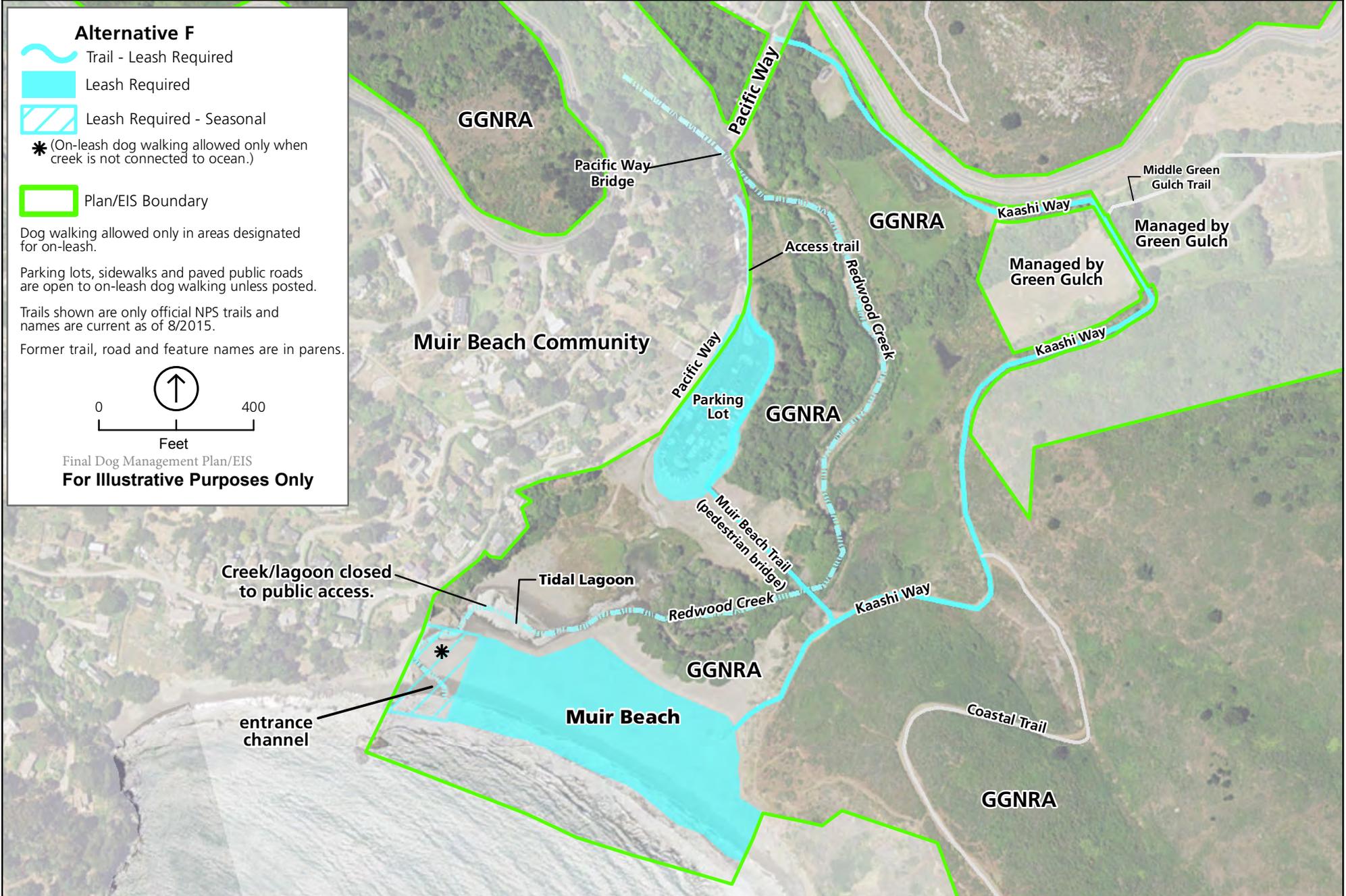
Map 5-E: Muir Beach

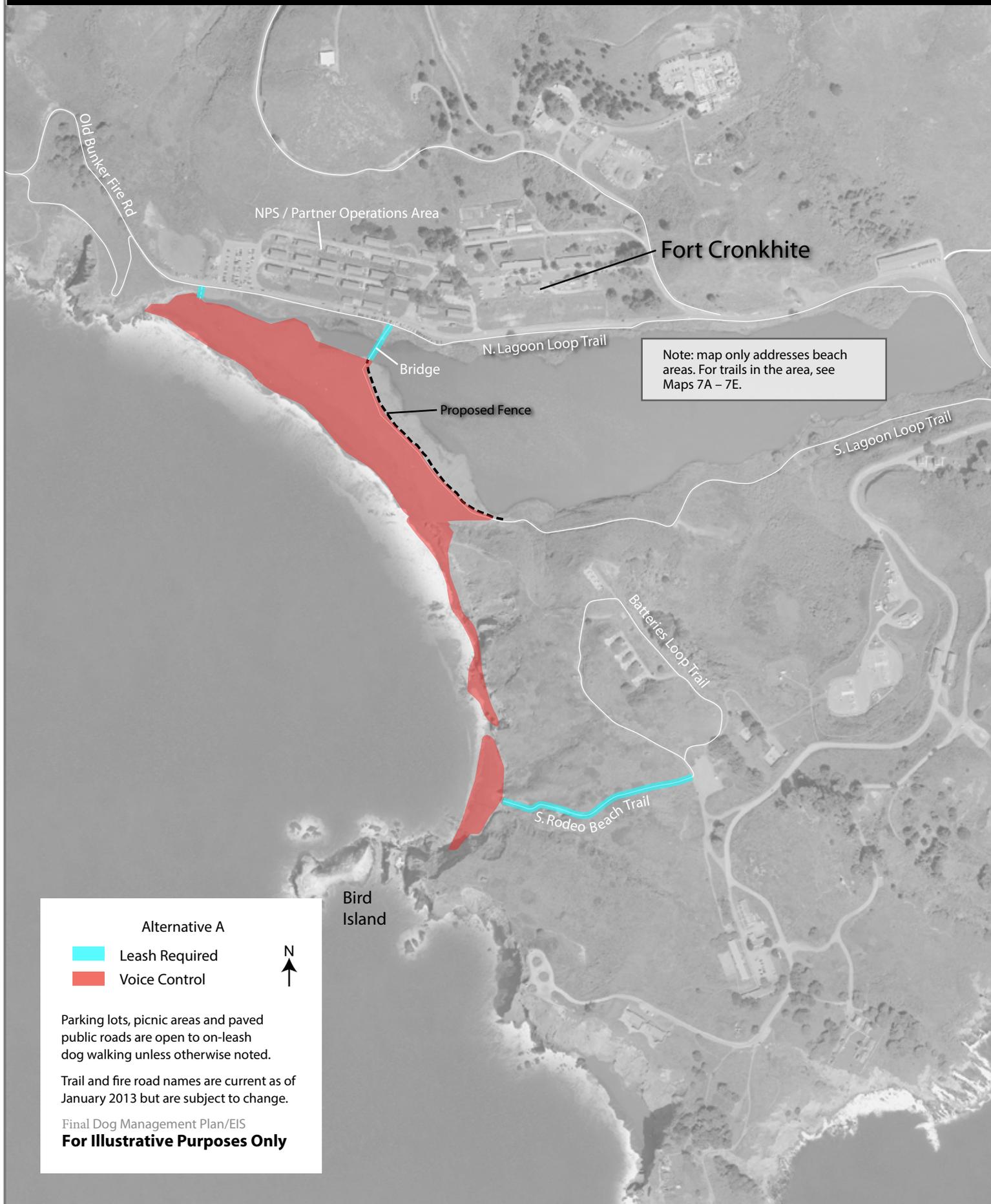


Map 5F: Muir Beach

Golden Gate National Recreation Area

National Park Service
U.S. Department of the Interior





Alternative A

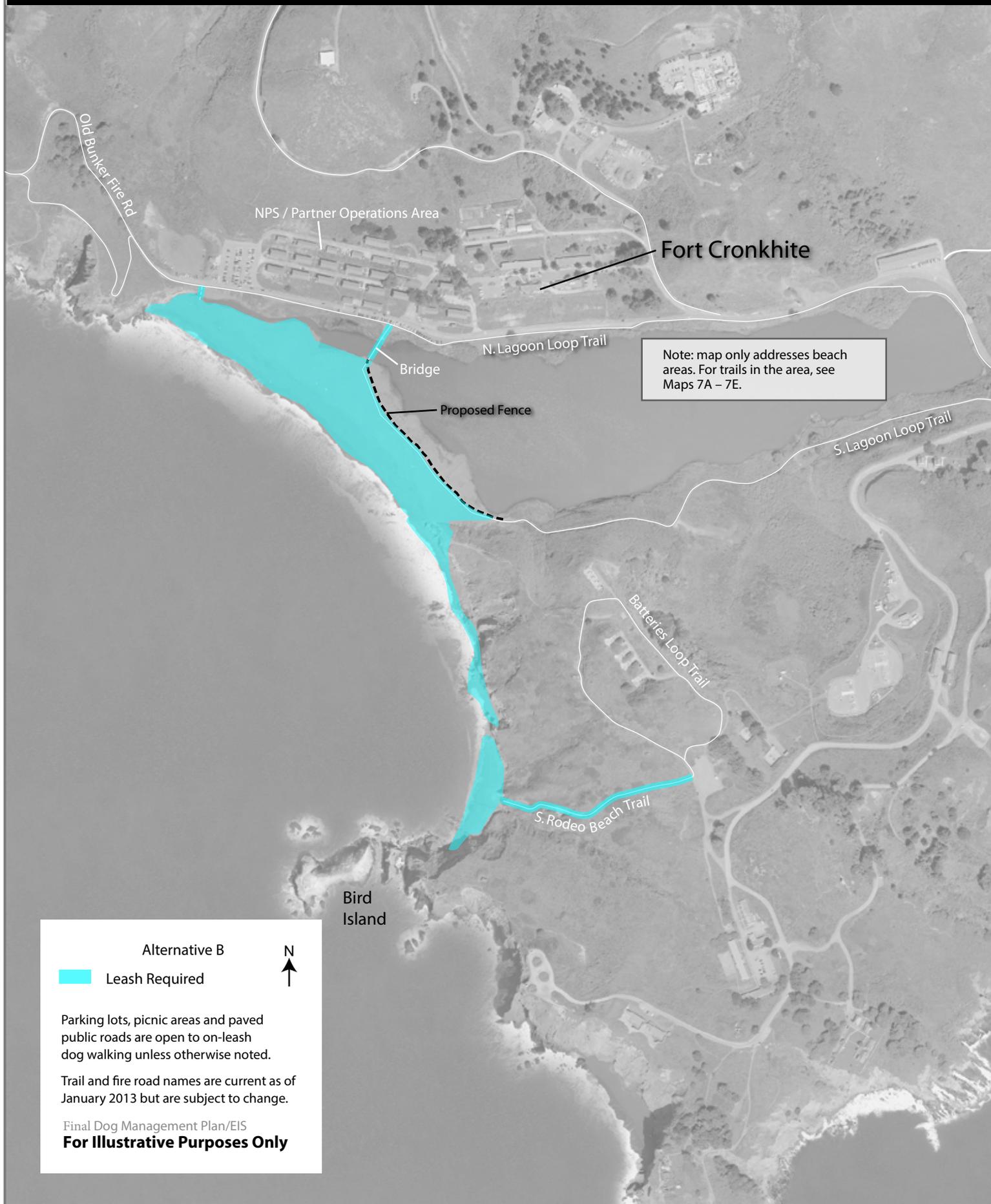
-  Leash Required
-  Voice Control



Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

Trail and fire road names are current as of January 2013 but are subject to change.

Final Dog Management Plan/EIS
For Illustrative Purposes Only



Note: map only addresses beach areas. For trails in the area, see Maps 7A - 7E.

Alternative B

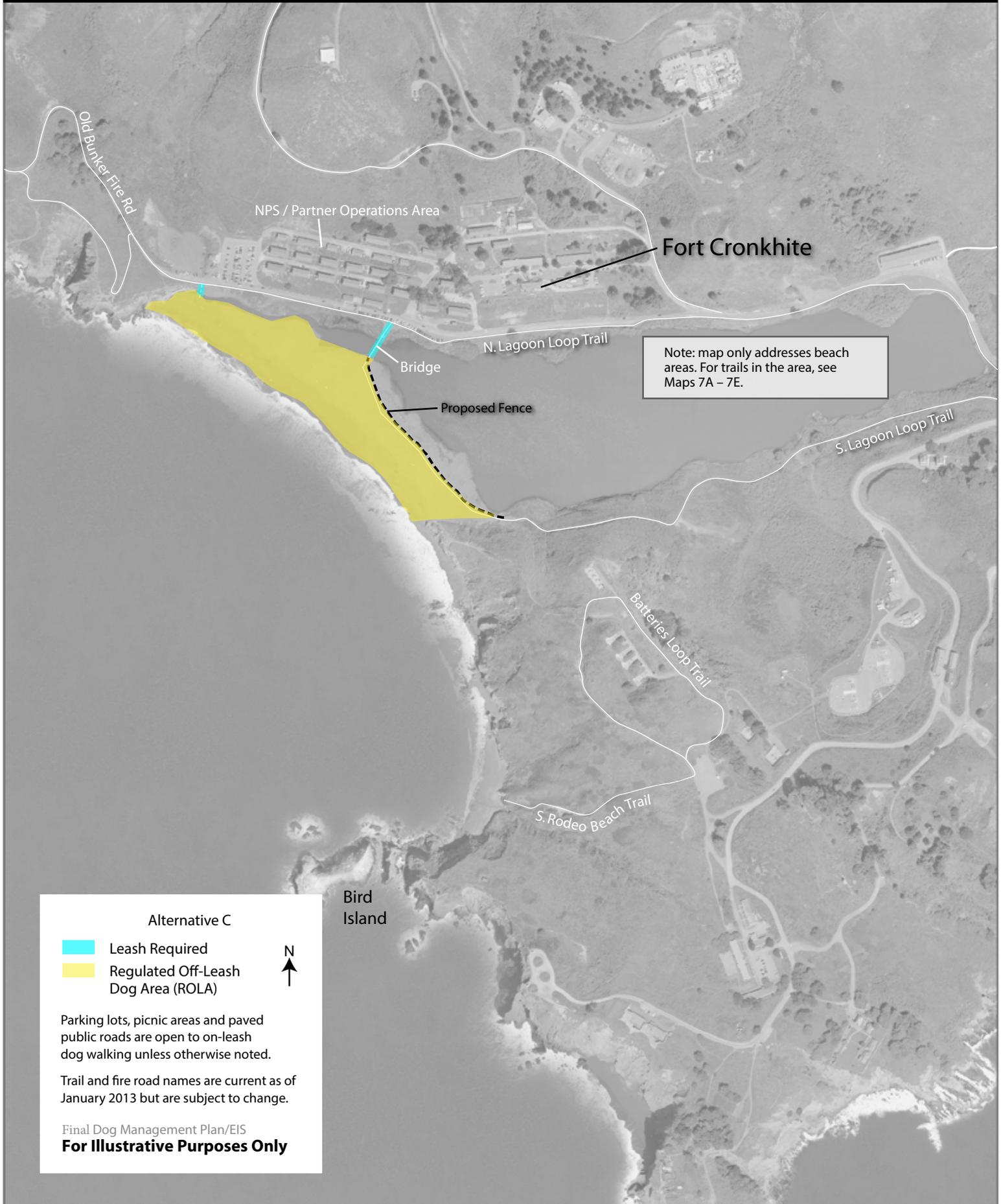
 Leash Required

N ↑

Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

Trail and fire road names are current as of January 2013 but are subject to change.

Final Dog Management Plan/EIS
For Illustrative Purposes Only



Note: map only addresses beach areas. For trails in the area, see Maps 7A - 7E.

Alternative C

- Leash Required
- Regulated Off-Leash Dog Area (ROLA)

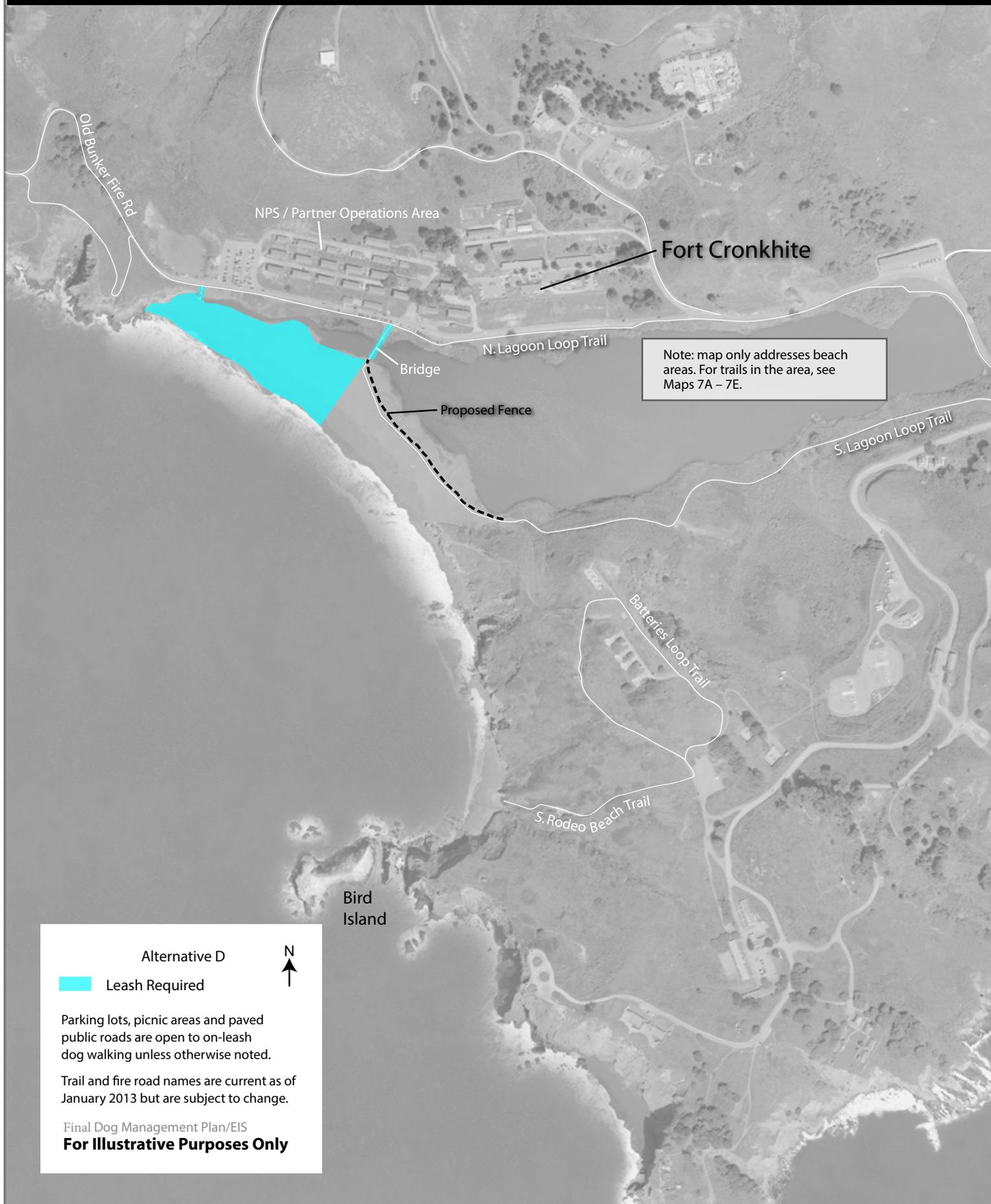
N ↑

Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

Trail and fire road names are current as of January 2013 but are subject to change.

Final Dog Management Plan/EIS
For Illustrative Purposes Only

Note: The term Regulated Off-Leash Dog Area (ROLA) that was used in the draft plan/SEIS has been changed to Voice and Sight Control Area (VSCA) for the plan/FEIS.



Note: map only addresses beach areas. For trails in the area, see Maps 7A – 7E.

Alternative D

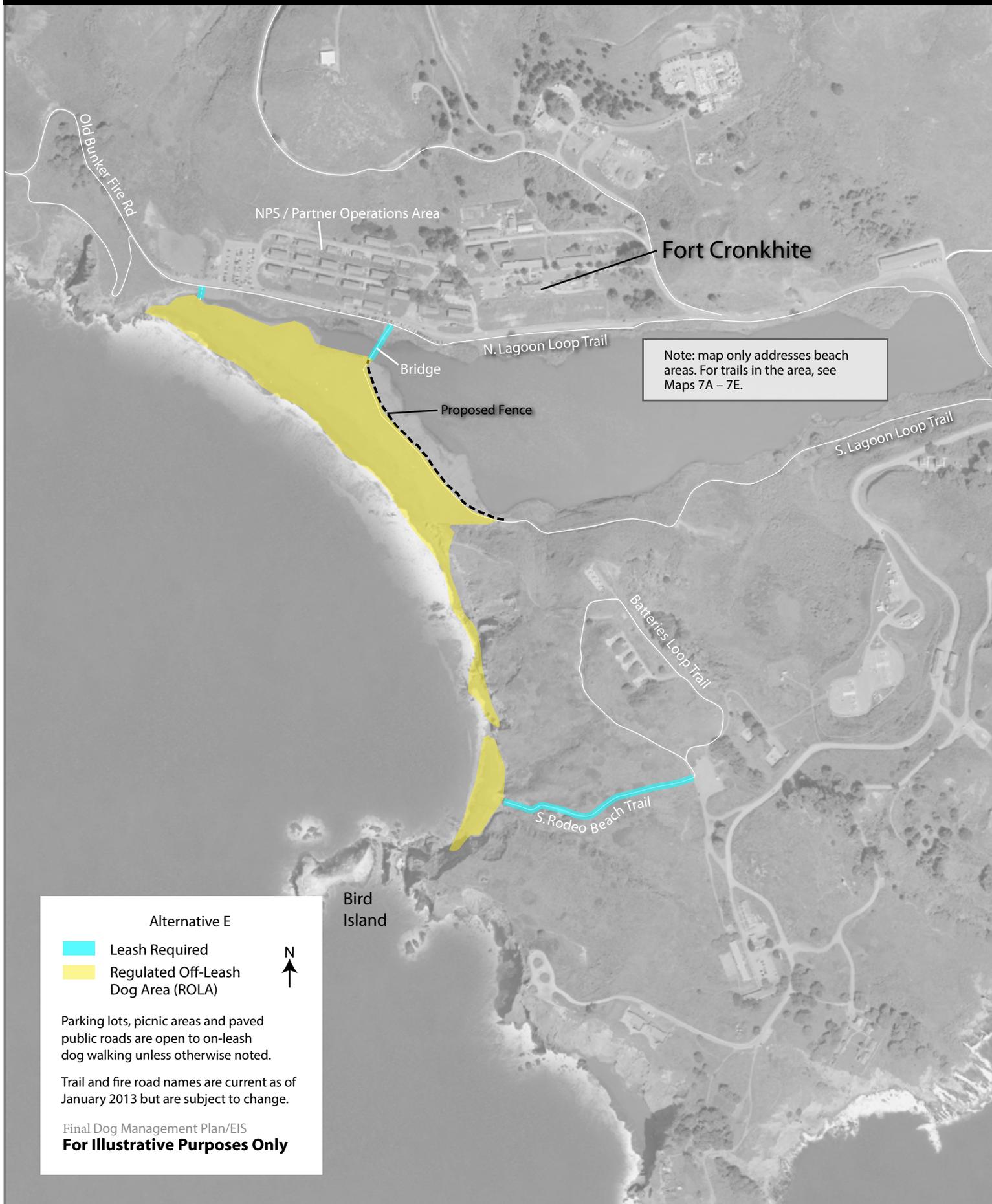
 Leash Required



Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

Trail and fire road names are current as of January 2013 but are subject to change.

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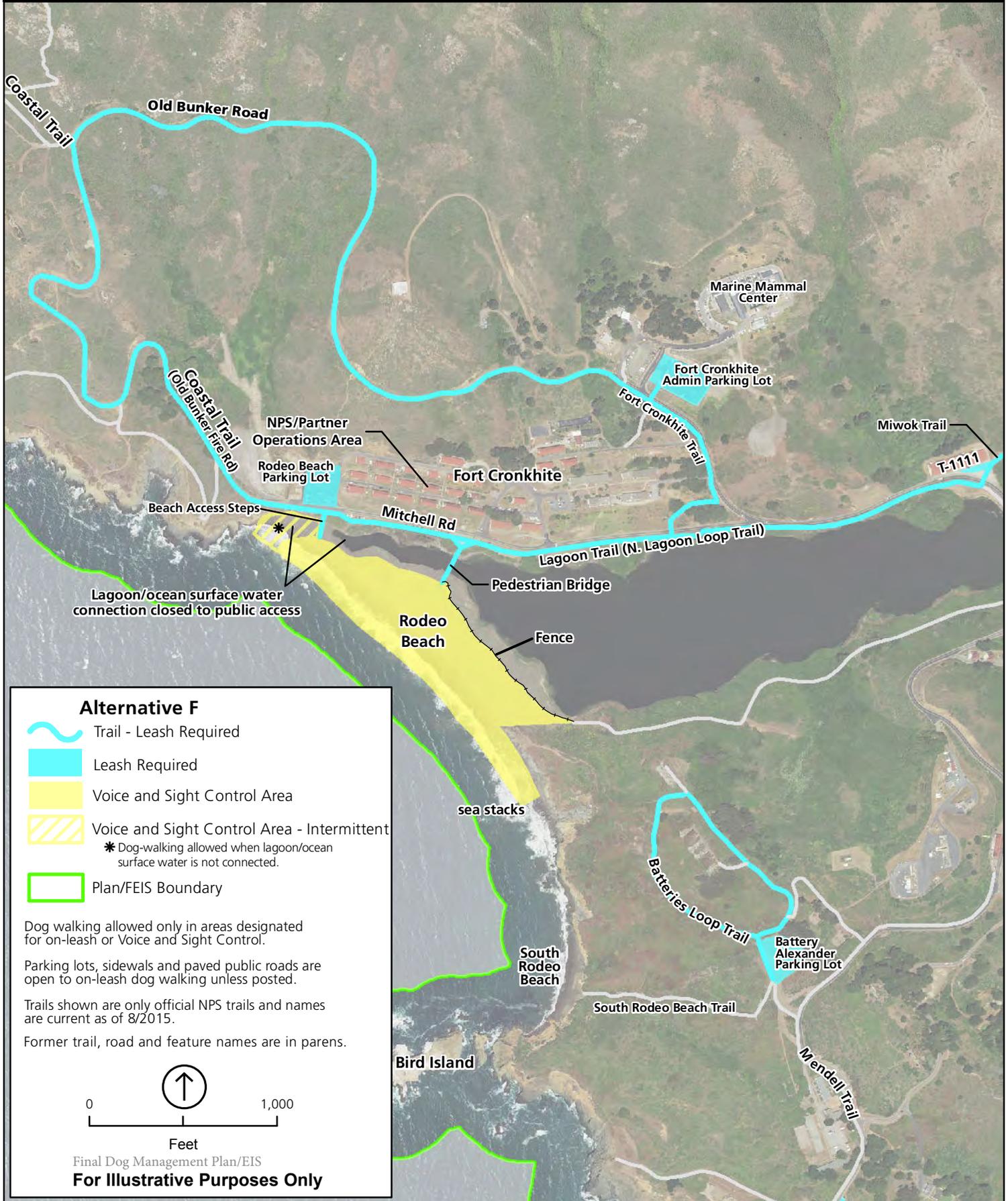


Note: The term Regulated Off-Leash Dog Area (ROLA) that was used in the draft plan/SEIS has been changed to Voice and Sight Control Area (VSCA) for the plan/FEIS.

Map 6F-1: Marin Headlands - Rodeo Beach and Vicinity

Golden Gate National Recreation Area

National Park Service
U.S. Department of the Interior



Alternative F

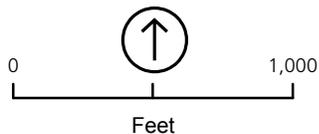
-  Trail - Leash Required
-  Leash Required
-  Voice and Sight Control Area
-  Voice and Sight Control Area - Intermittent
* Dog-walking allowed when lagoon/ocean surface water is not connected.
-  Plan/FEIS Boundary

Dog walking allowed only in areas designated for on-leash or Voice and Sight Control.

Parking lots, sidewalks and paved public roads are open to on-leash dog walking unless posted.

Trails shown are only official NPS trails and names are current as of 8/2015.

Former trail, road and feature names are in parens.

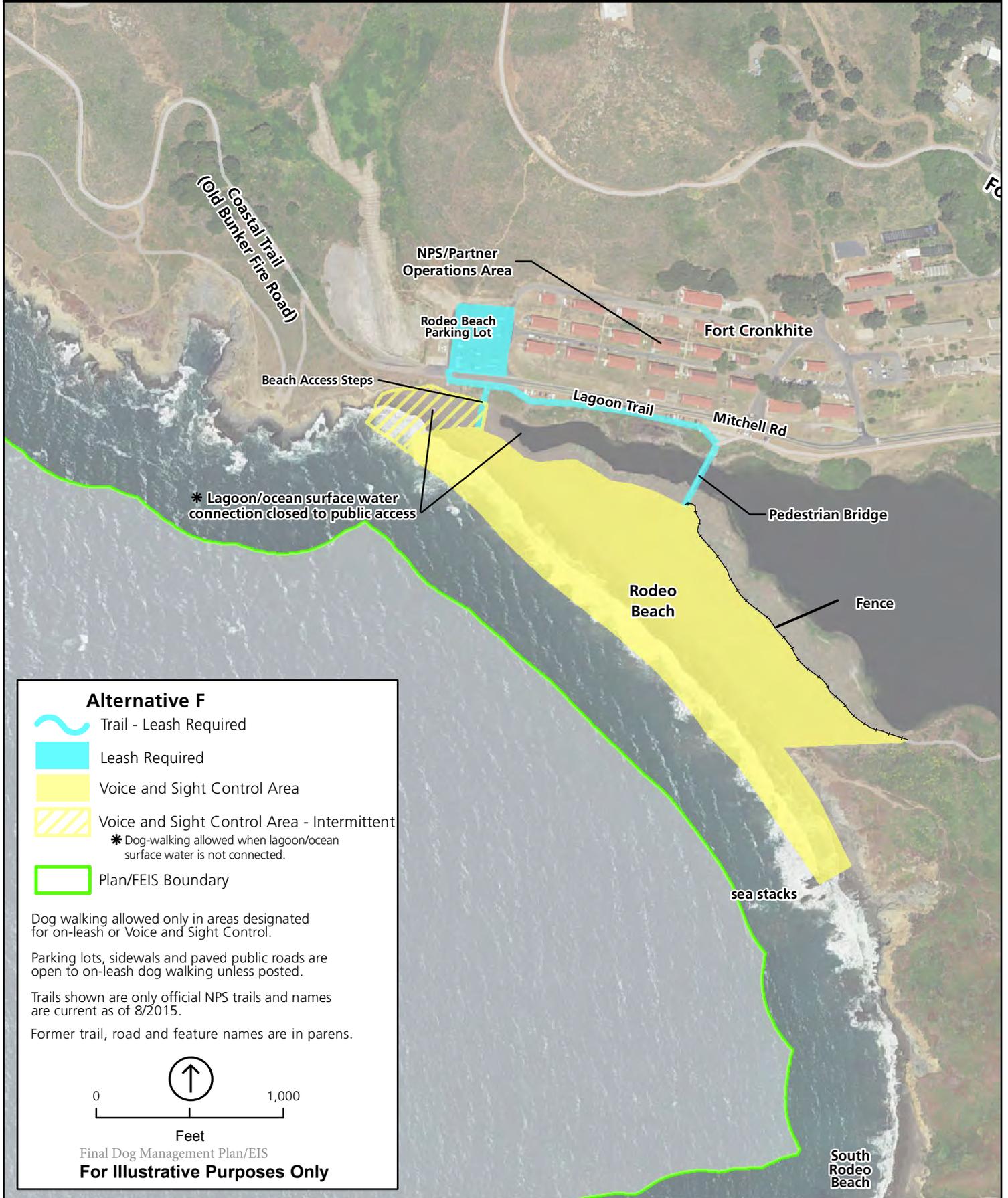


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Map 6F-2: Marin Headlands - Rodeo Beach and Vicinity Walking 4-6 Dogs Allowed with NPS Permit

Golden Gate National Recreation Area

National Park Service
U.S. Department of the Interior



Alternative F

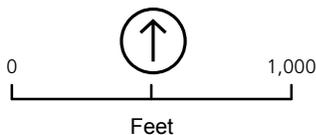
-  Trail - Leash Required
-  Leash Required
-  Voice and Sight Control Area
-  Voice and Sight Control Area - Intermittent
* Dog-walking allowed when lagoon/ocean surface water is not connected.
-  Plan/FEIS Boundary

Dog walking allowed only in areas designated for on-leash or Voice and Sight Control.

Parking lots, sidewalks and paved public roads are open to on-leash dog walking unless posted.

Trails shown are only official NPS trails and names are current as of 8/2015.

Former trail, road and feature names are in parens.

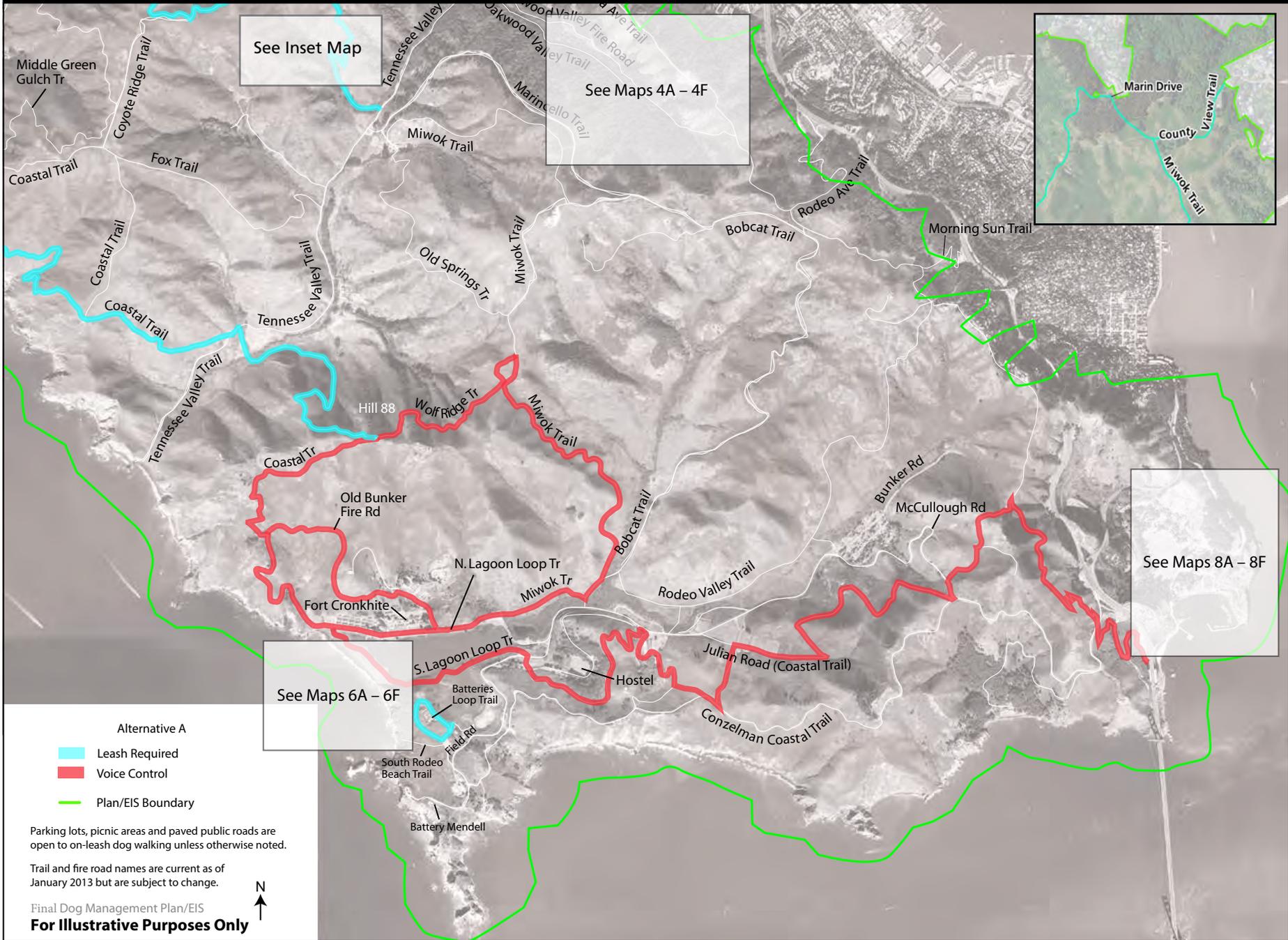


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South Rodeo Beach

Map 7-A: Marin Headlands Trails



See Inset Map

See Maps 4A - 4F



See Maps 8A - 8F

See Maps 6A - 6F

Alternative A
Leash Required
Voice Control
Plan/EIS Boundary

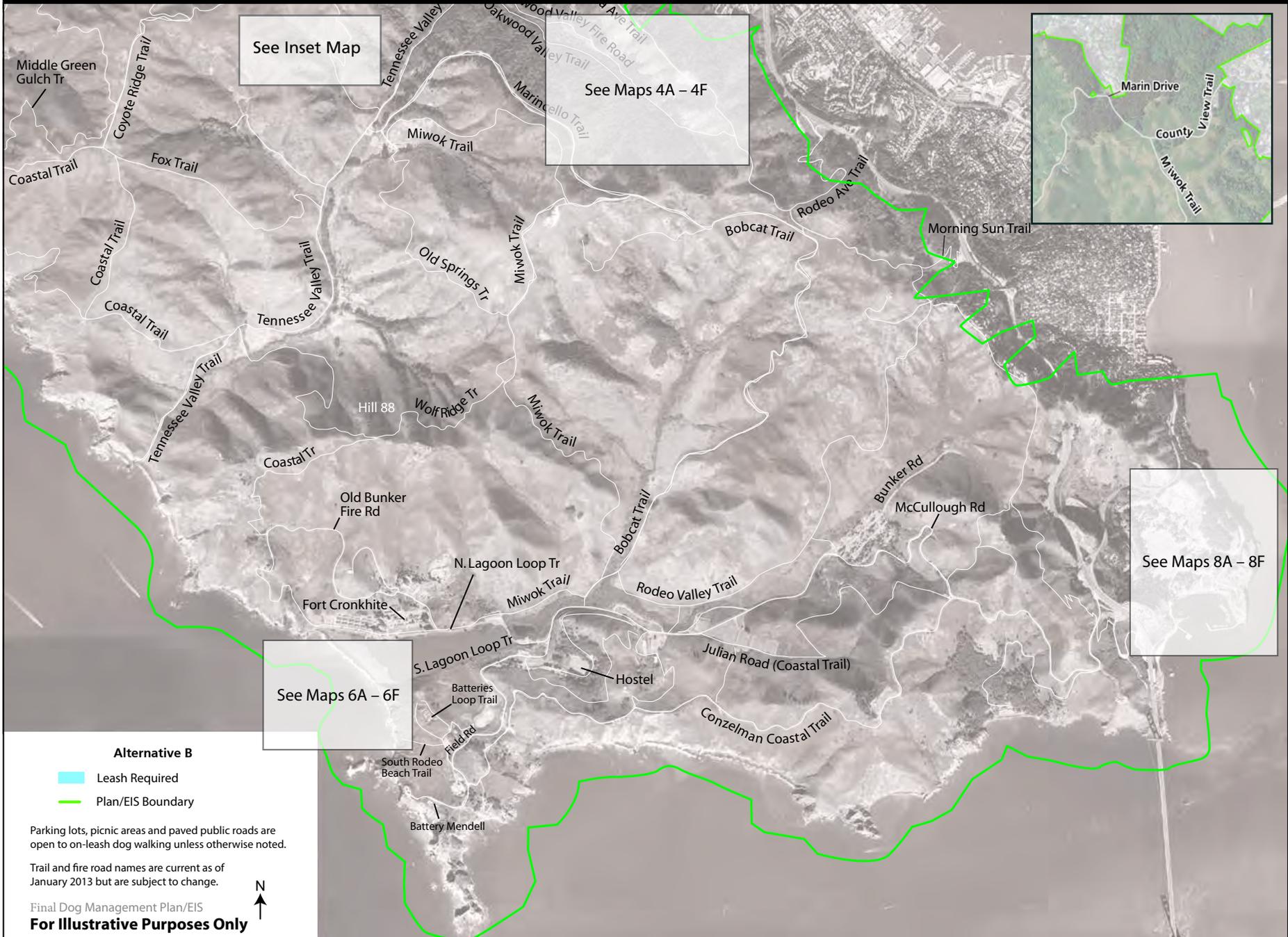
Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

Trail and fire road names are current as of January 2013 but are subject to change.

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Map 7-B: Marin Headlands Trails



See Inset Map

See Maps 4A - 4F



See Maps 8A - 8F

See Maps 6A - 6F

Alternative B

Leash Required

Plan/EIS Boundary

Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

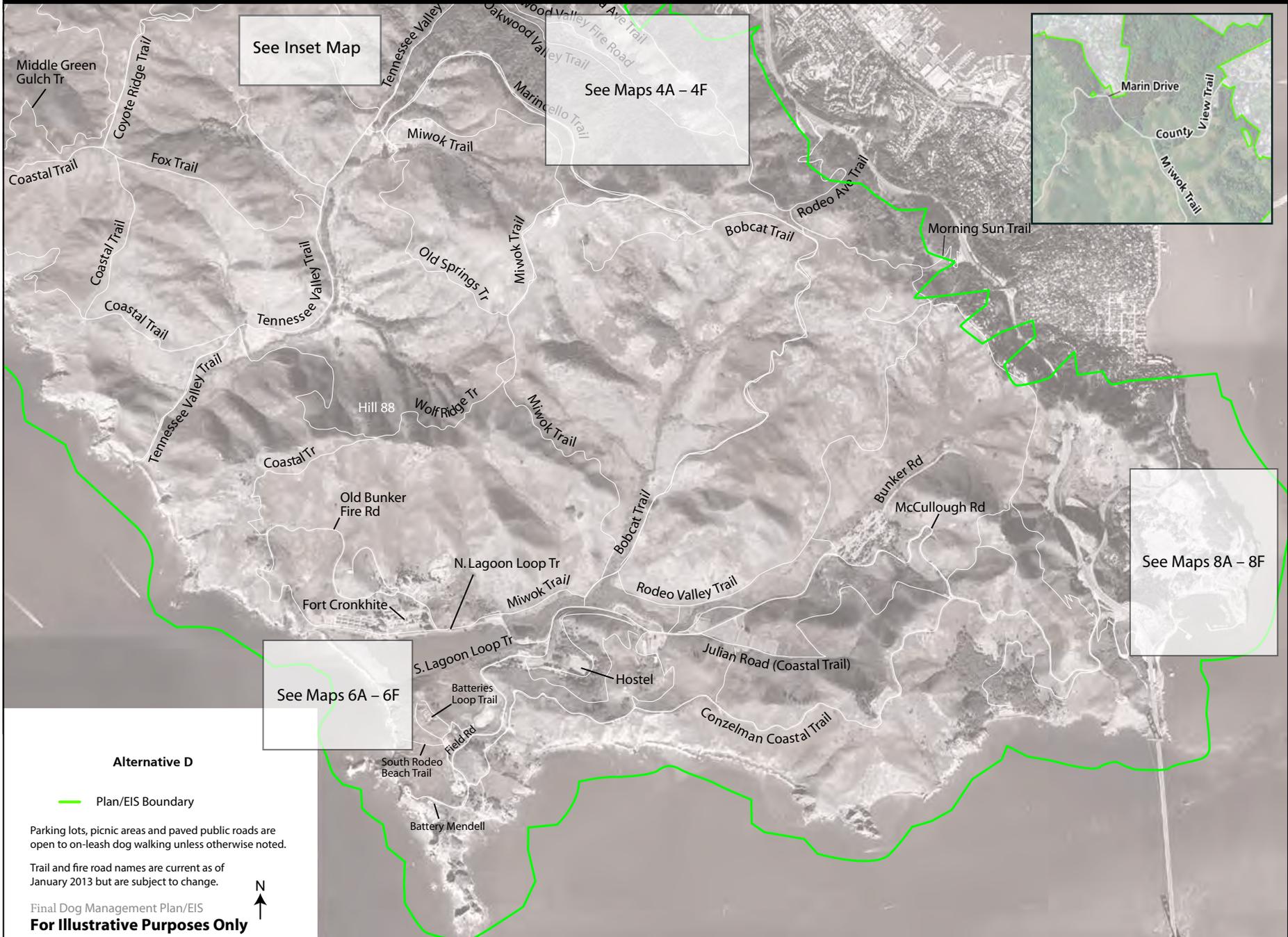
Trail and fire road names are current as of January 2013 but are subject to change.

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Map 7-D: Marin Headlands Trails



See Inset Map

See Maps 4A - 4F

See Maps 8A - 8F

Alternative D

— Plan/EIS Boundary

Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

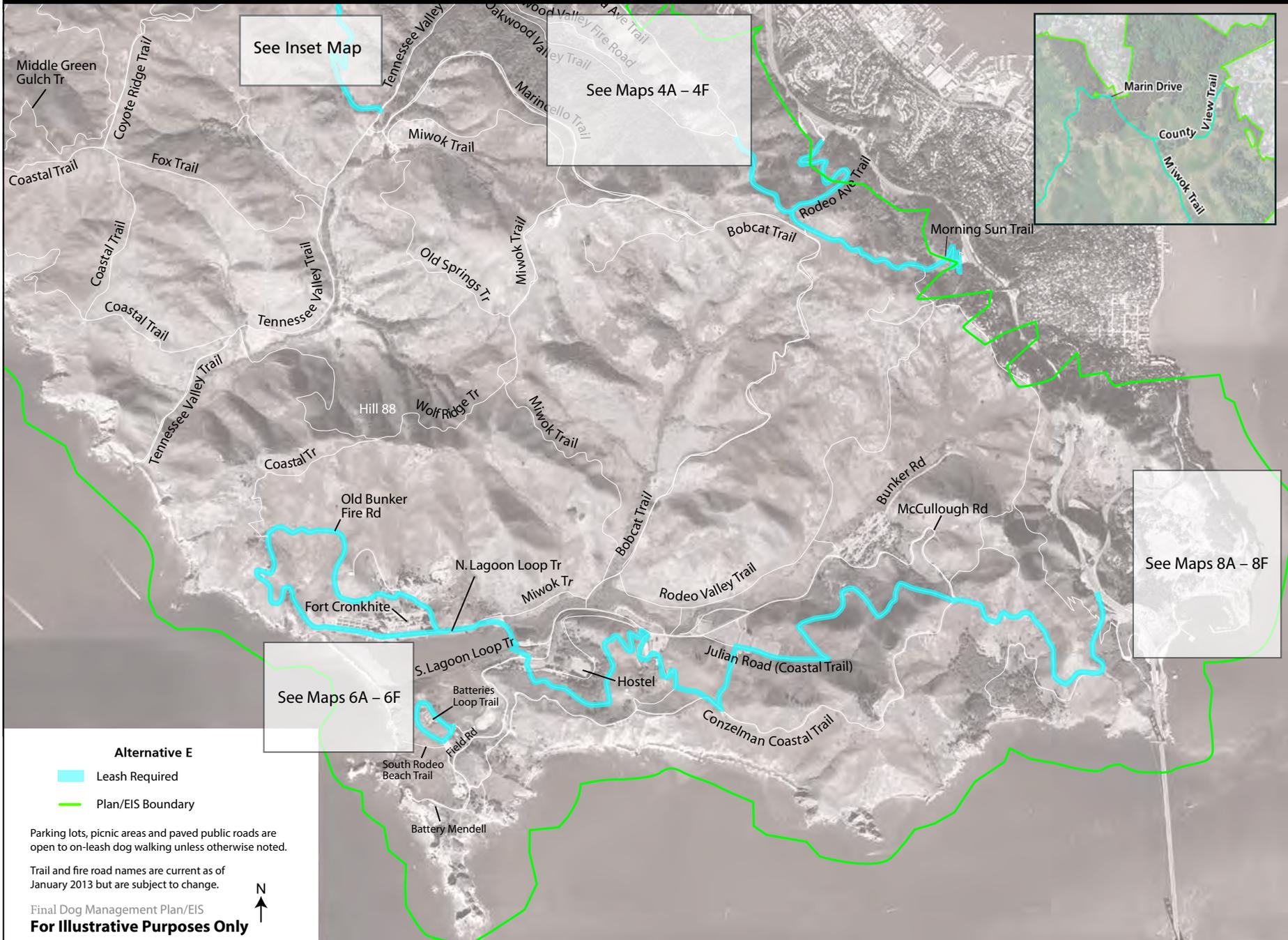
Trail and fire road names are current as of January 2013 but are subject to change.

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Map 7-E: Marin Headlands Trails



See Inset Map

See Maps 4A – 4F

See Maps 8A – 8F

See Maps 6A – 6F

Alternative E

Leash Required

Plan/EIS Boundary

Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

Trail and fire road names are current as of January 2013 but are subject to change.

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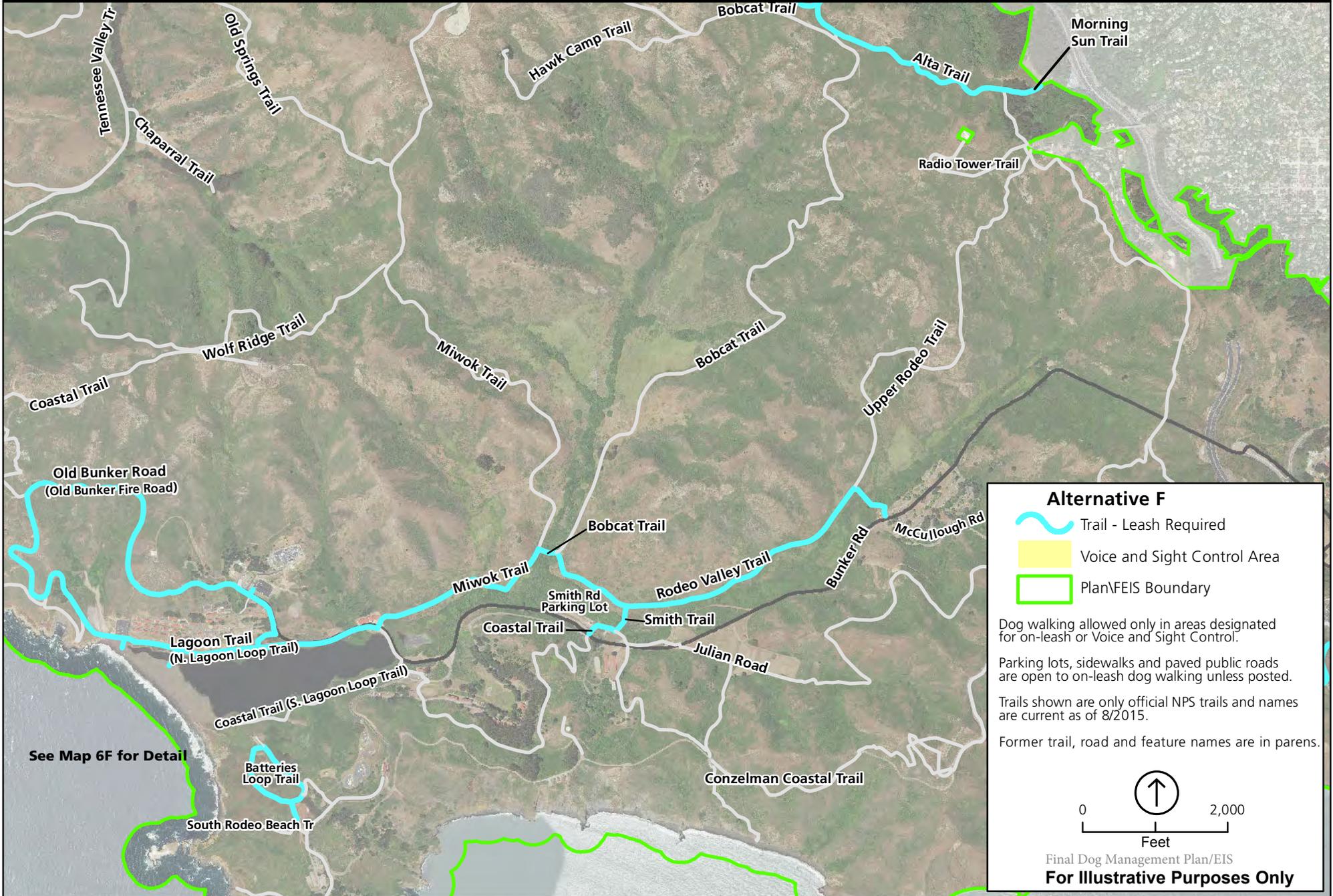
For Illustrative Purposes Only



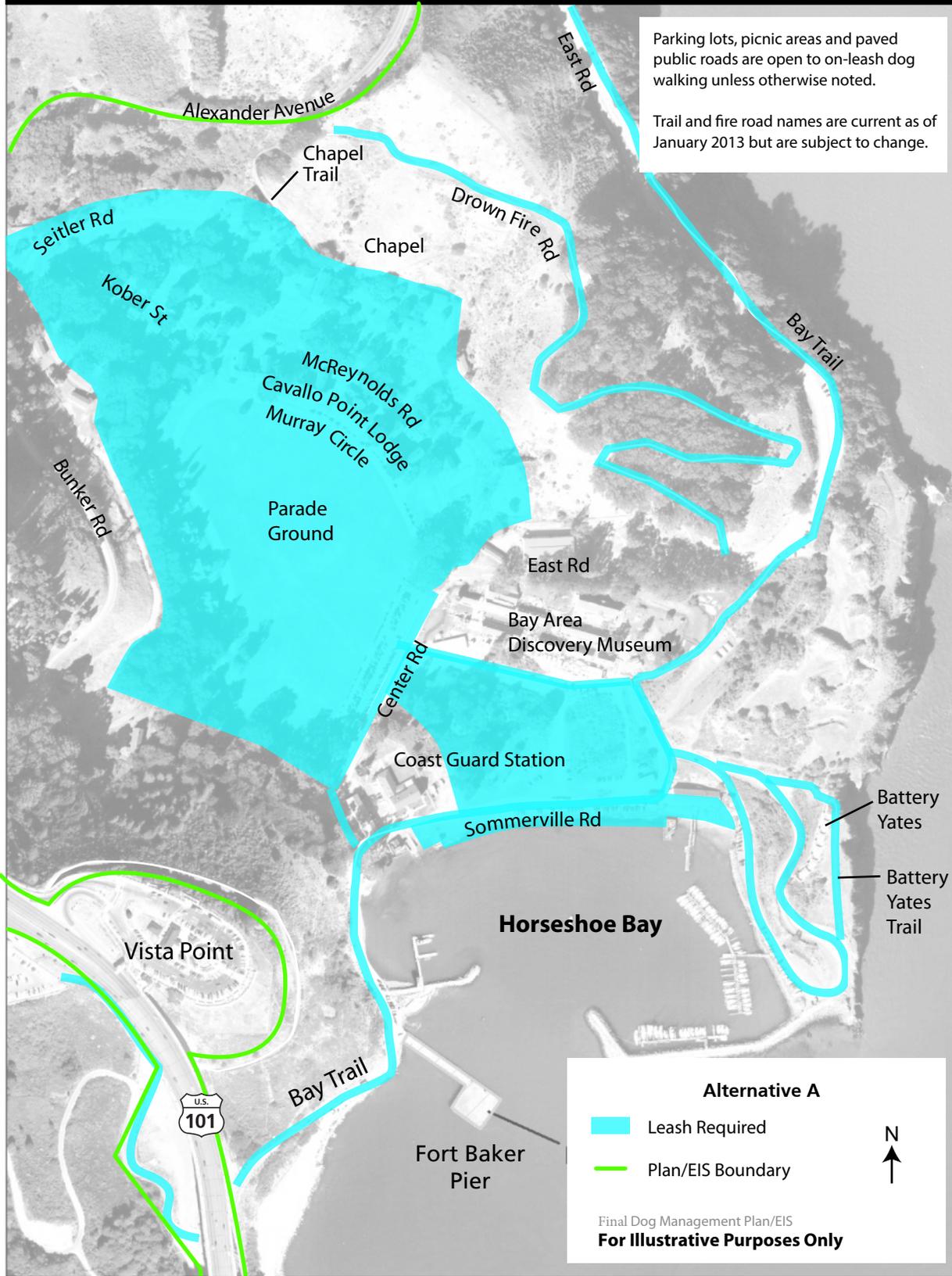
Map 7F: Marin Headlands - Rodeo Valley

Golden Gate National Recreation Area

National Park Service
U.S. Department of the Interior



Map 8-A: Fort Baker

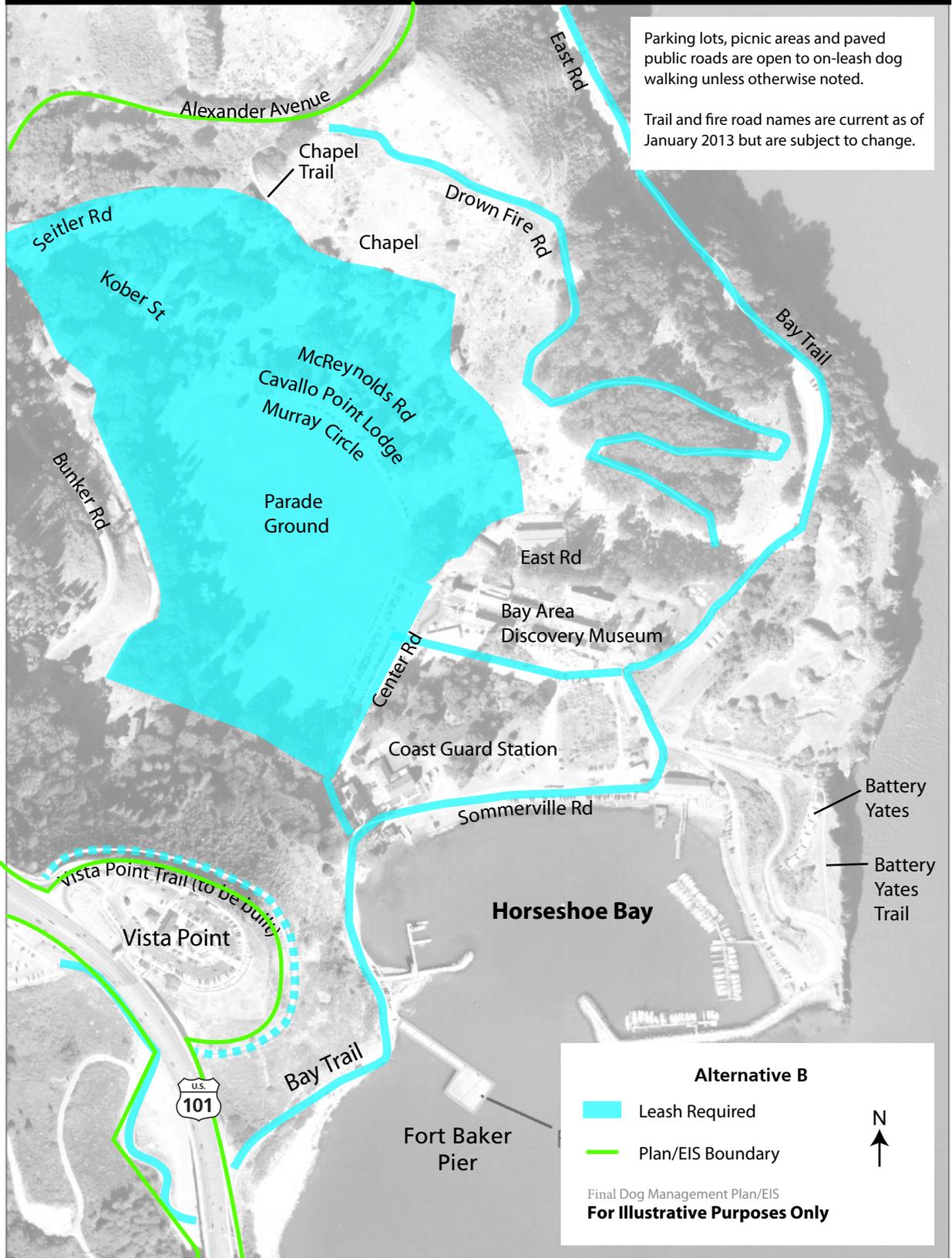


Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

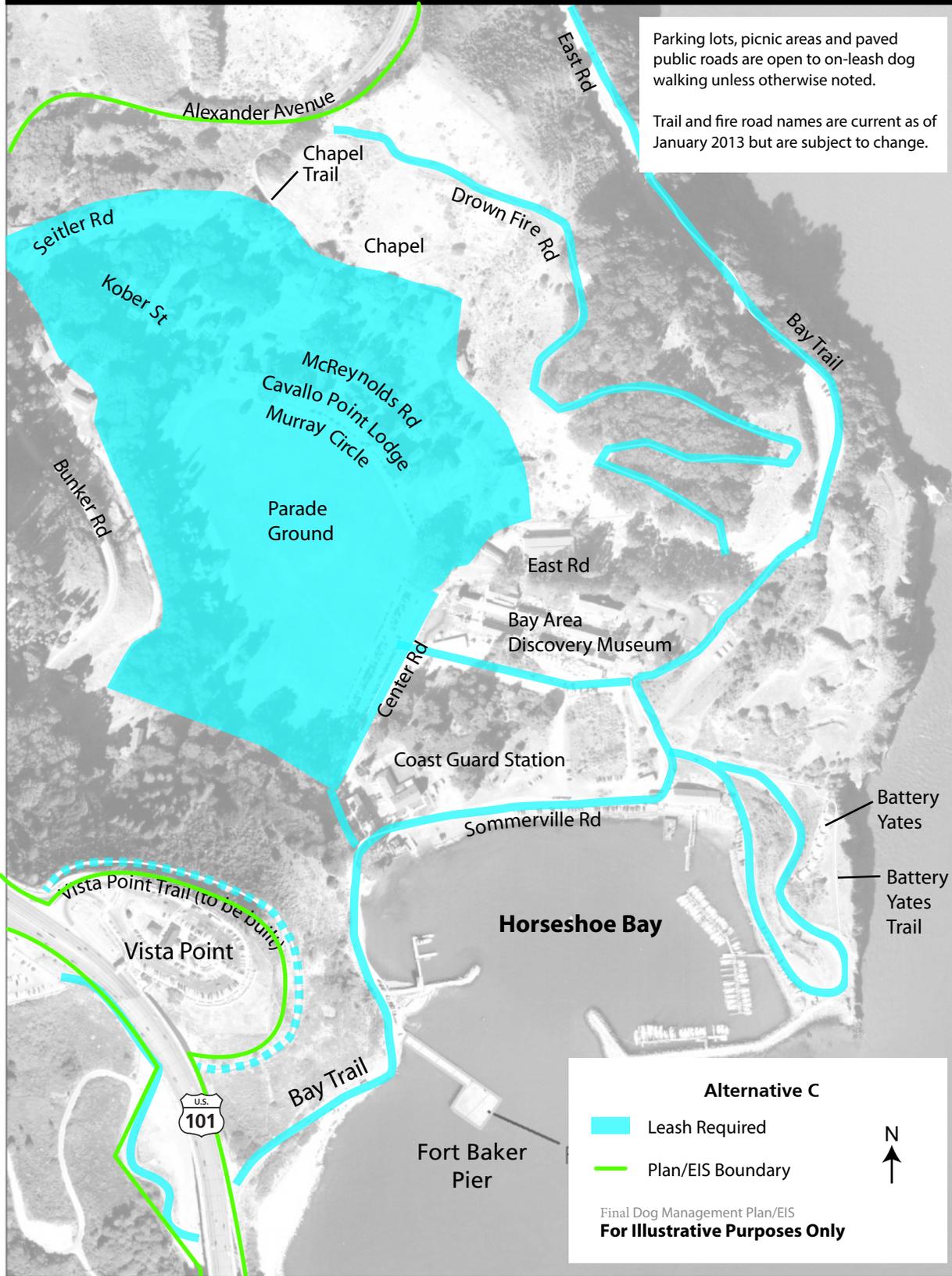
Trail and fire road names are current as of January 2013 but are subject to change.



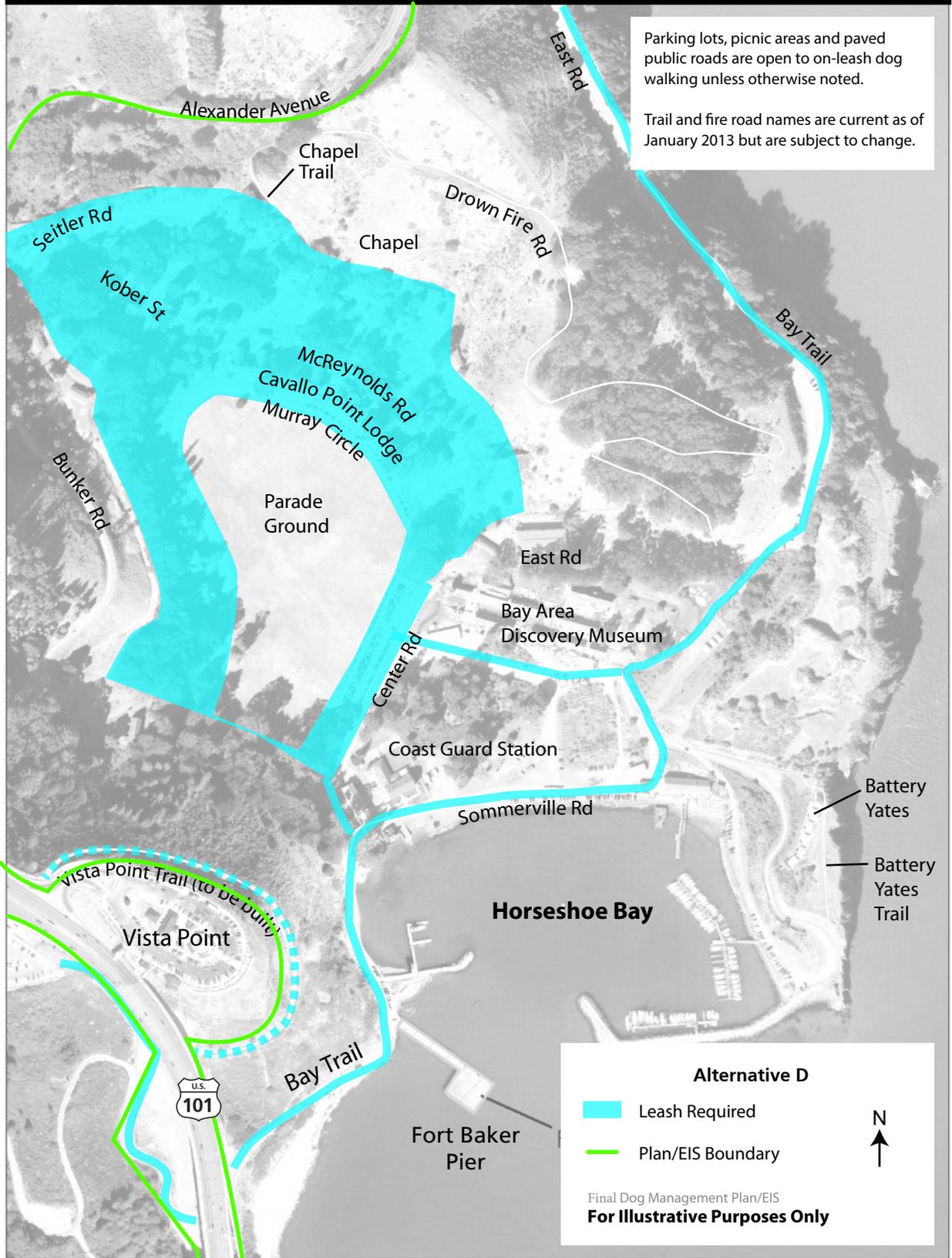
Map 8-B: Fort Baker



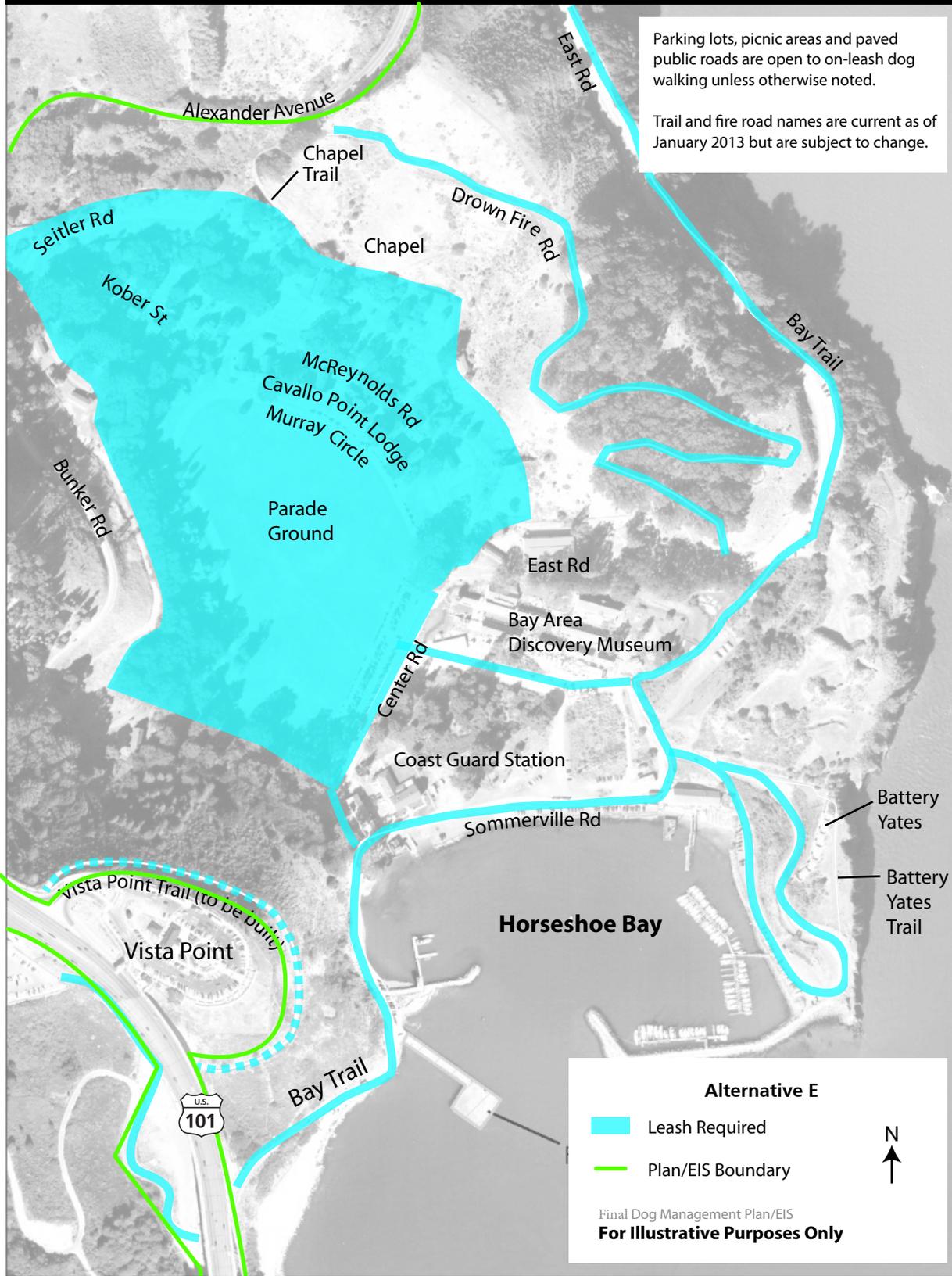
Map 8-C: Fort Baker



Map 8-D: Fort Baker



Map 8-E: Fort Baker



Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

Trail and fire road names are current as of January 2013 but are subject to change.

Alternative E

- Leash Required
- Plan/EIS Boundary

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N
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Map 8F-1: Fort Baker

Golden Gate National Recreation Area

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U.S. Department of the Interior



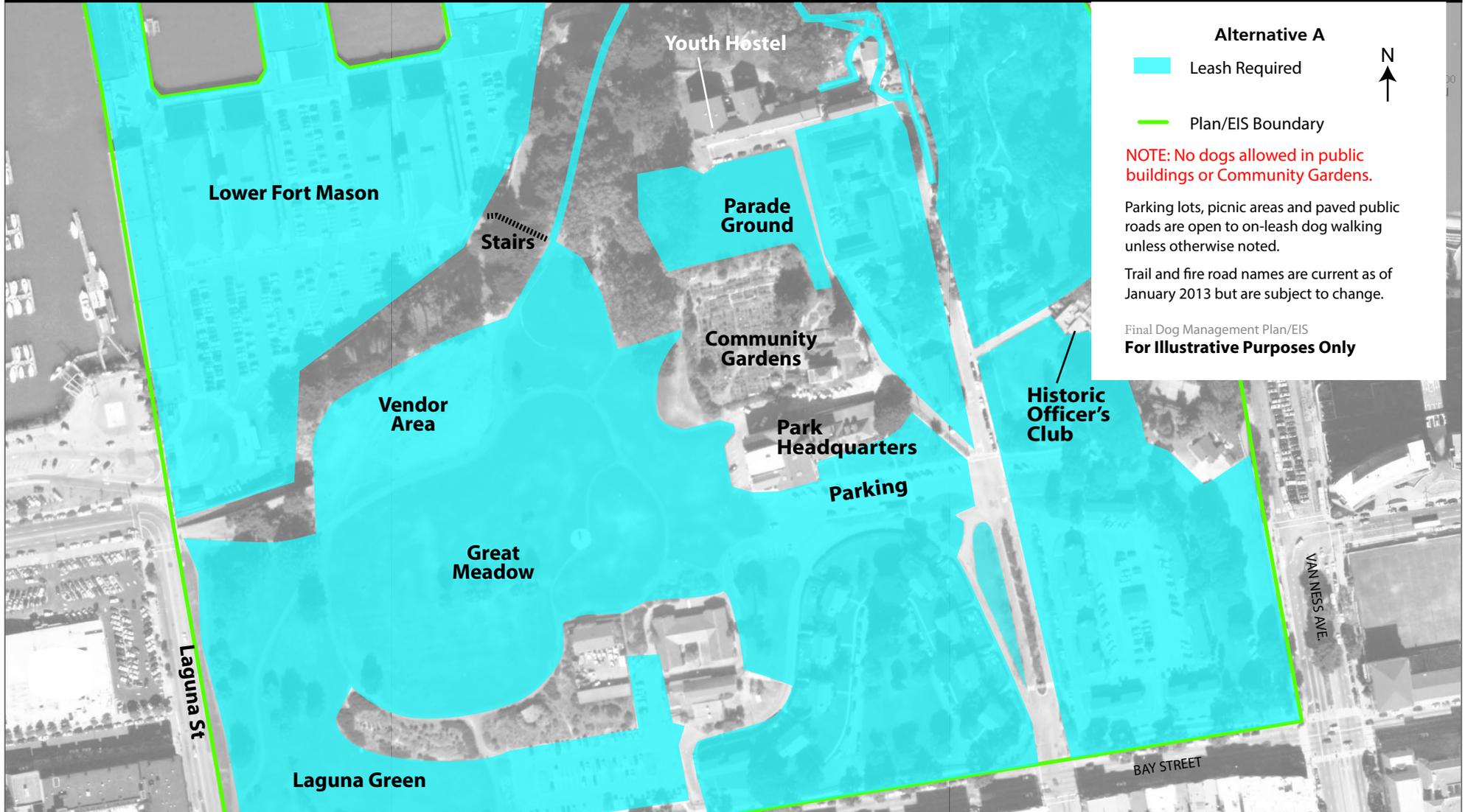
Map 8F-2: Fort Baker

Walking 4-6 Dogs Allowed with NPS Permit
Golden Gate National Recreation Area

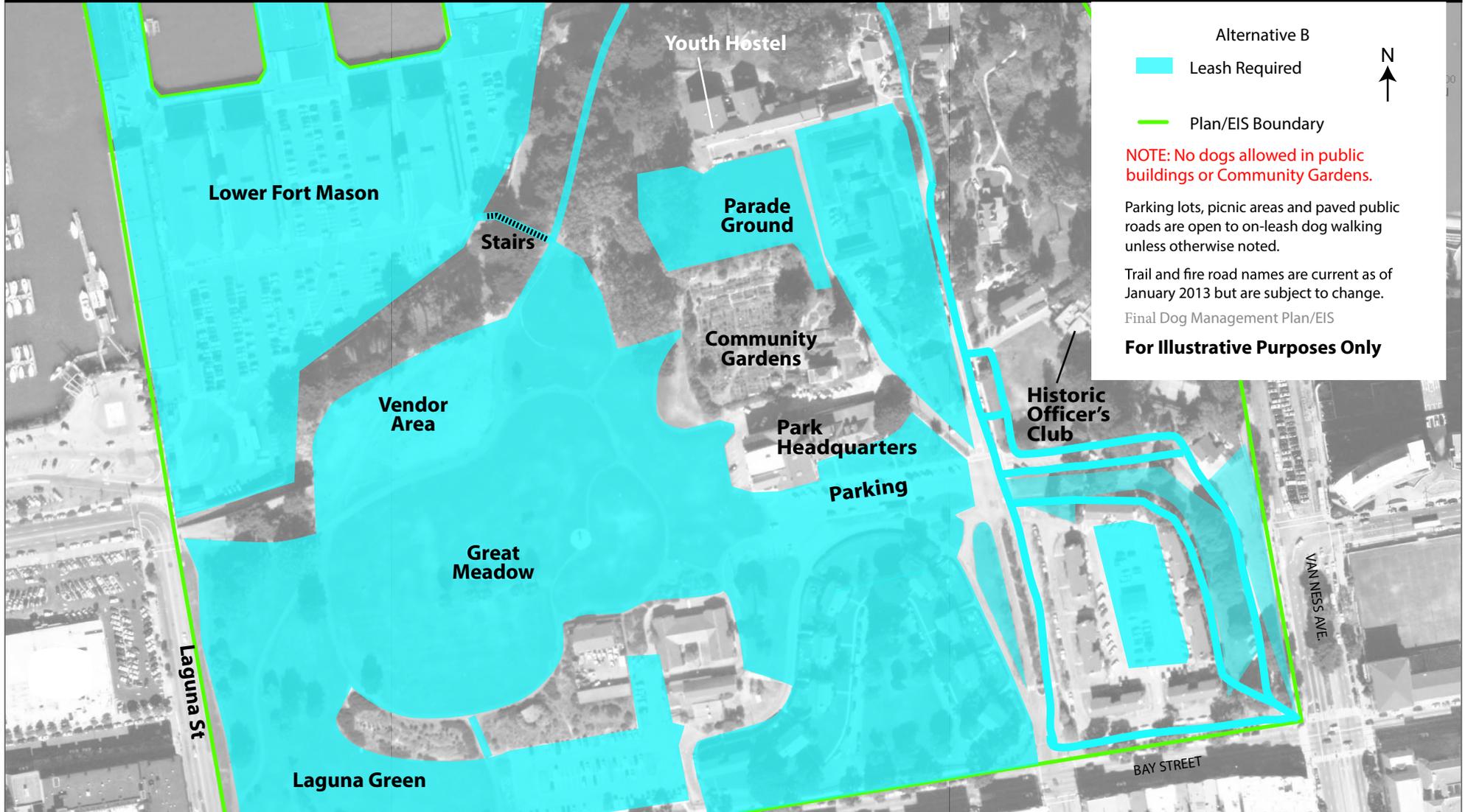
National Park Service
U.S. Department of the Interior



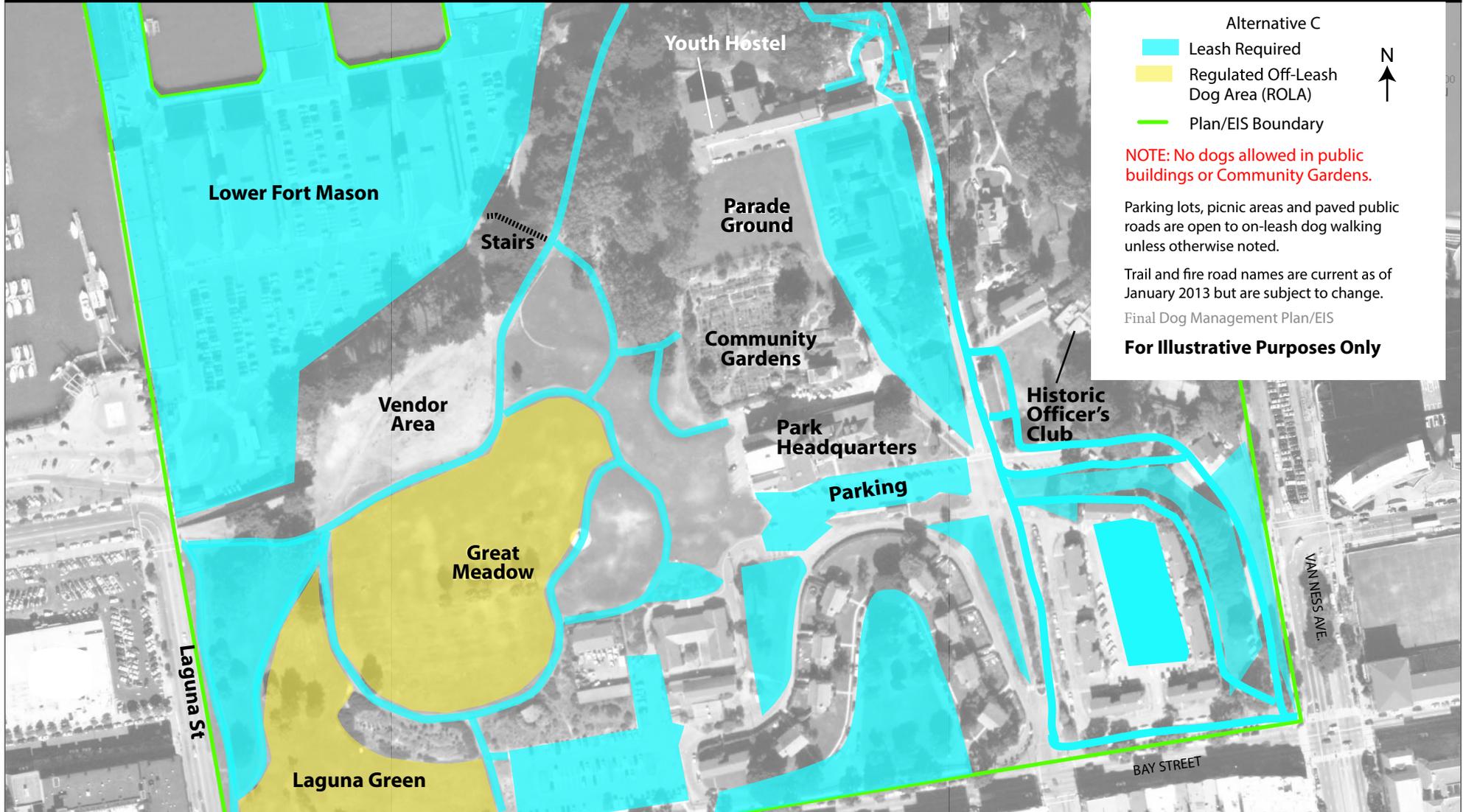
Map 9-A: Upper Fort Mason



Map 9-B: Upper Fort Mason

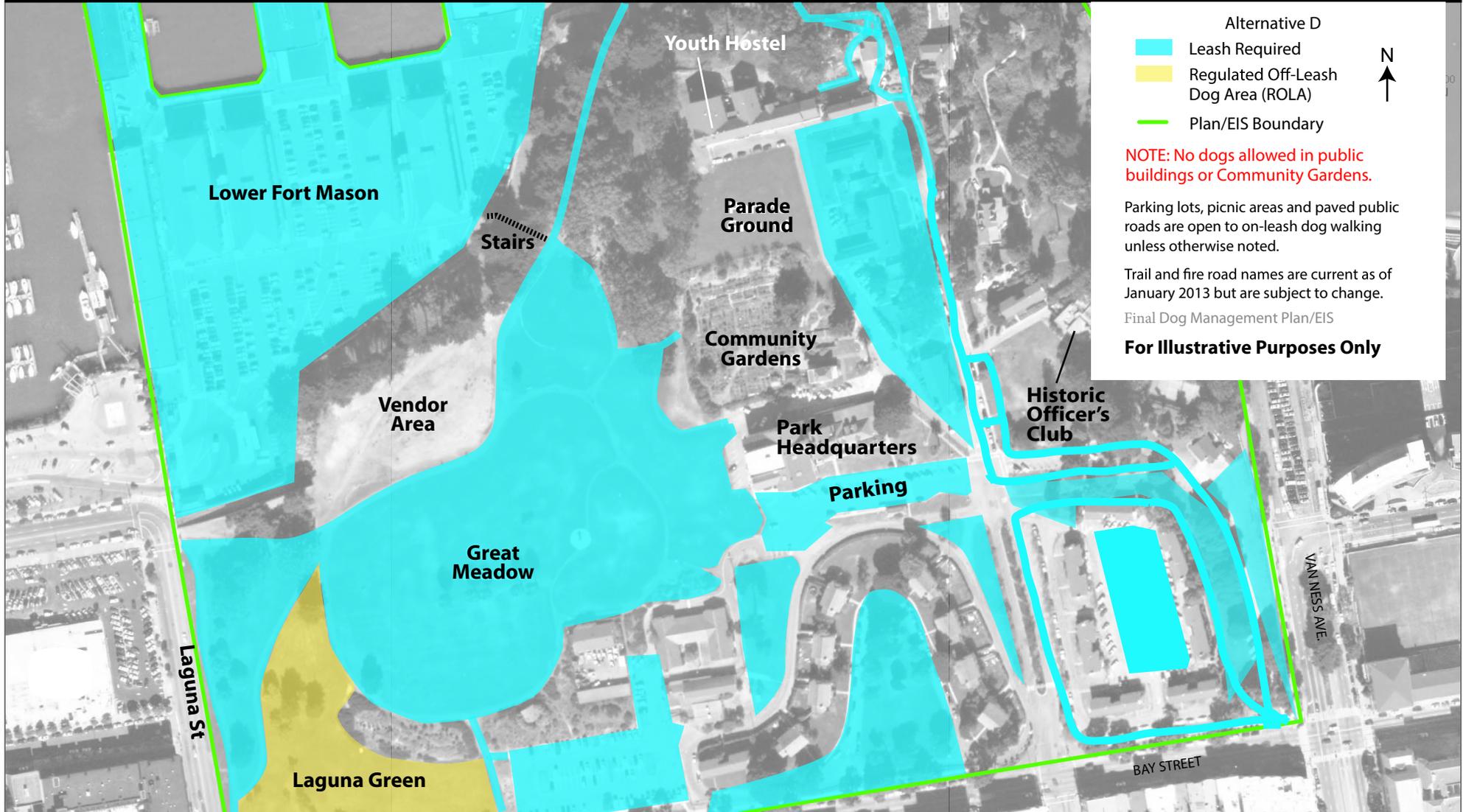


Map 9-C: Upper Fort Mason



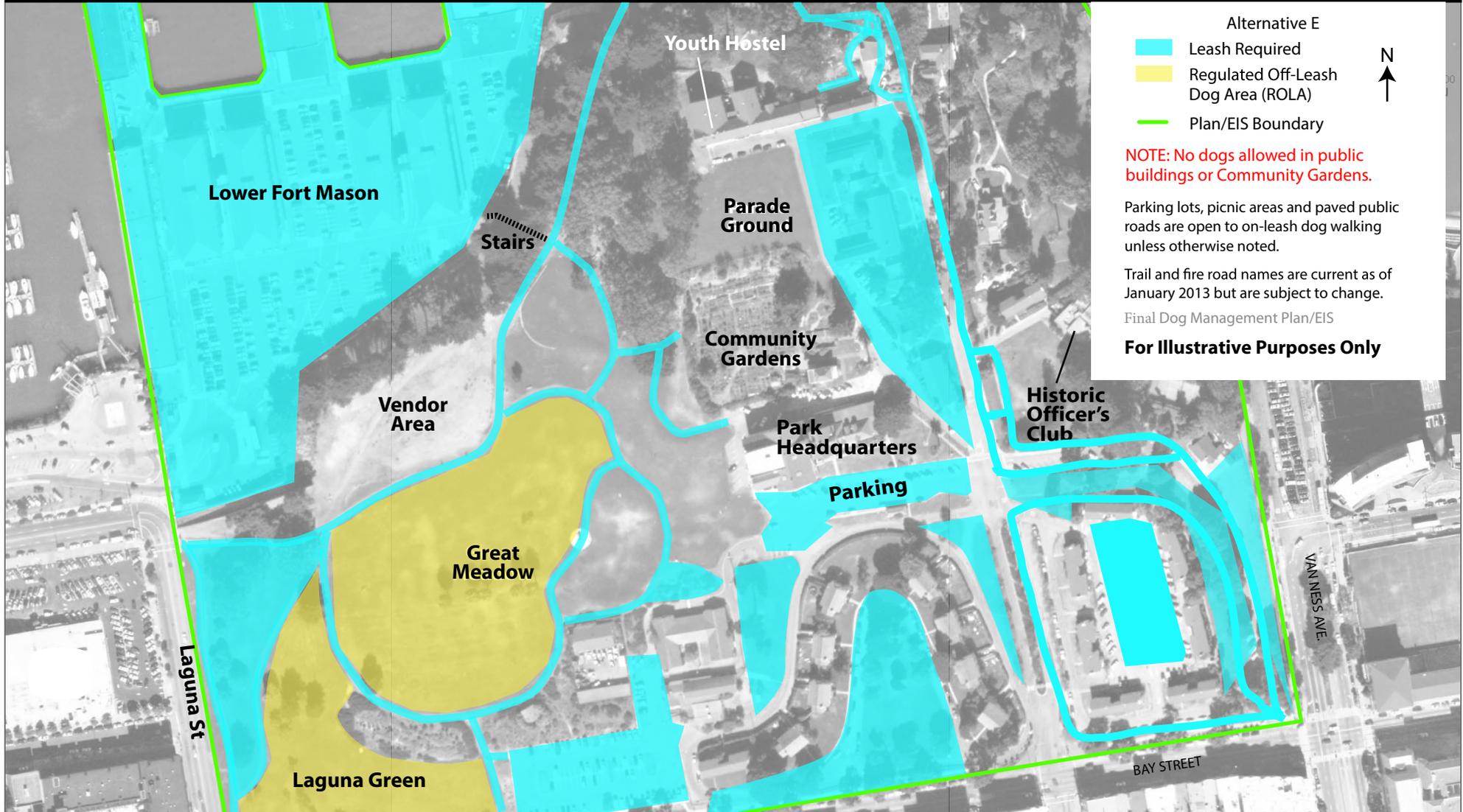
Note: The term Regulated Off-Leash Dog Area (ROLA) that was used in the draft plan/SEIS has been changed to Voice and Sight Control Area (VSCA) for the plan/FEIS.

Map 9-D: Upper Fort Mason



Note: The term Regulated Off-Leash Dog Area (ROLA) that was used in the draft plan/SEIS has been changed to Voice and Sight Control Area (VSCA) for the plan/EIS.

Map 9-E: Upper Fort Mason



Note: The term Regulated Off-Leash Dog Area (ROLA) that was used in the draft plan/SEIS has been changed to Voice and Sight Control Area (VSCA) for the plan/FEIS.

Map 9F-1: Fort Mason

Golden Gate National Recreation Area

National Park Service
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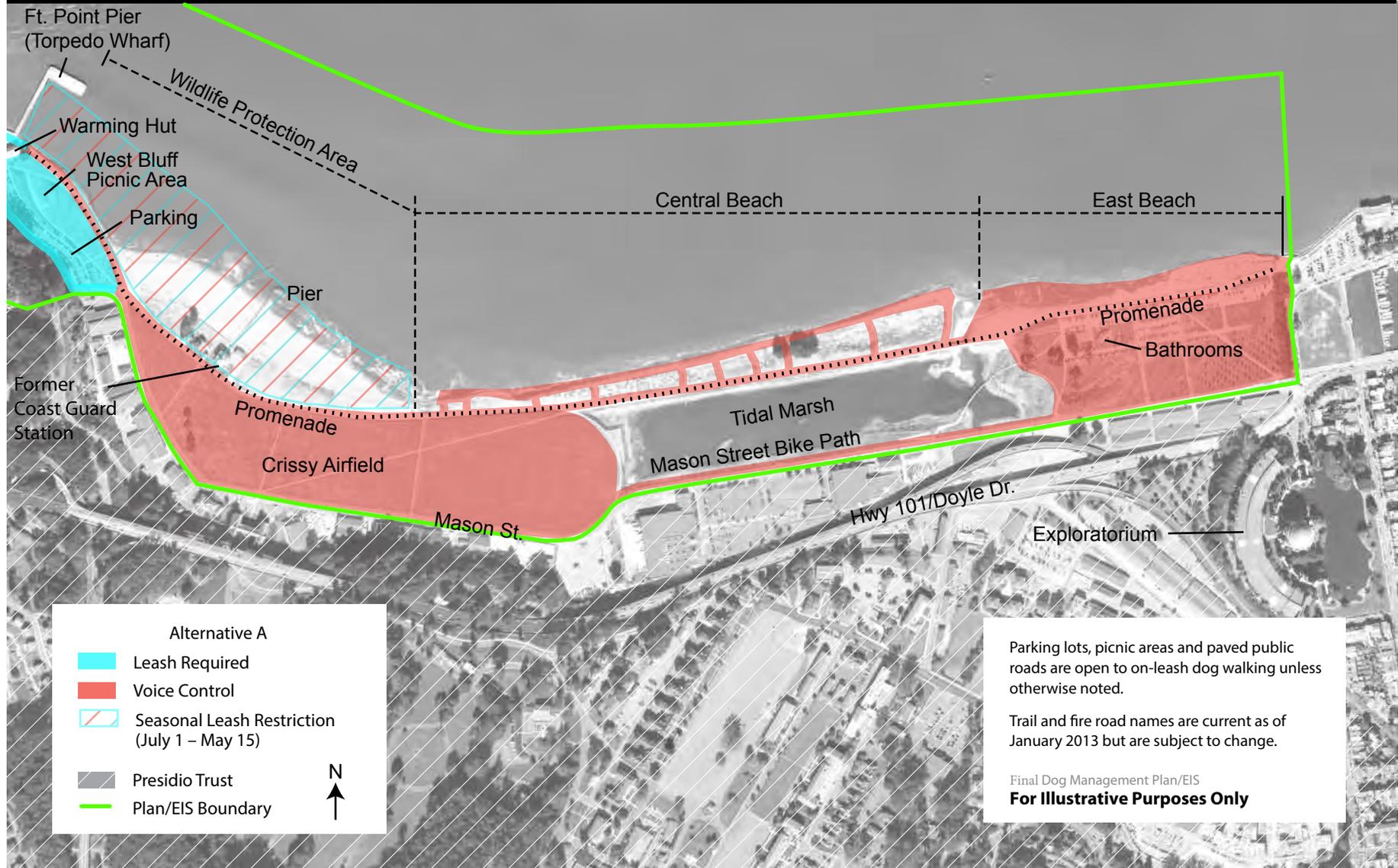
Map 9F-2: Fort Mason

Walking 4-6 Dogs Allowed with NPS Permit
Golden Gate National Recreation Area

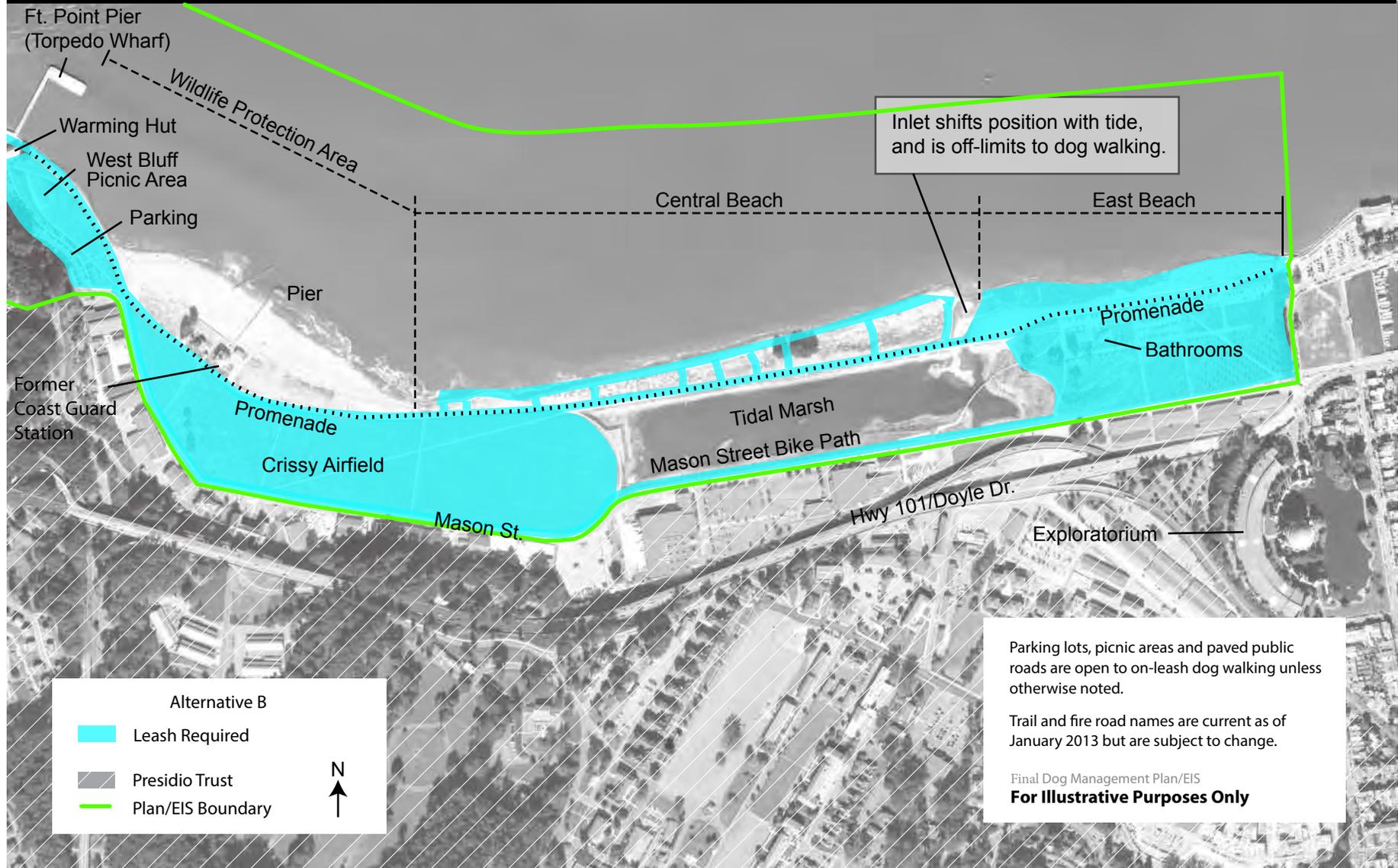
National Park Service
U.S. Department of the Interior



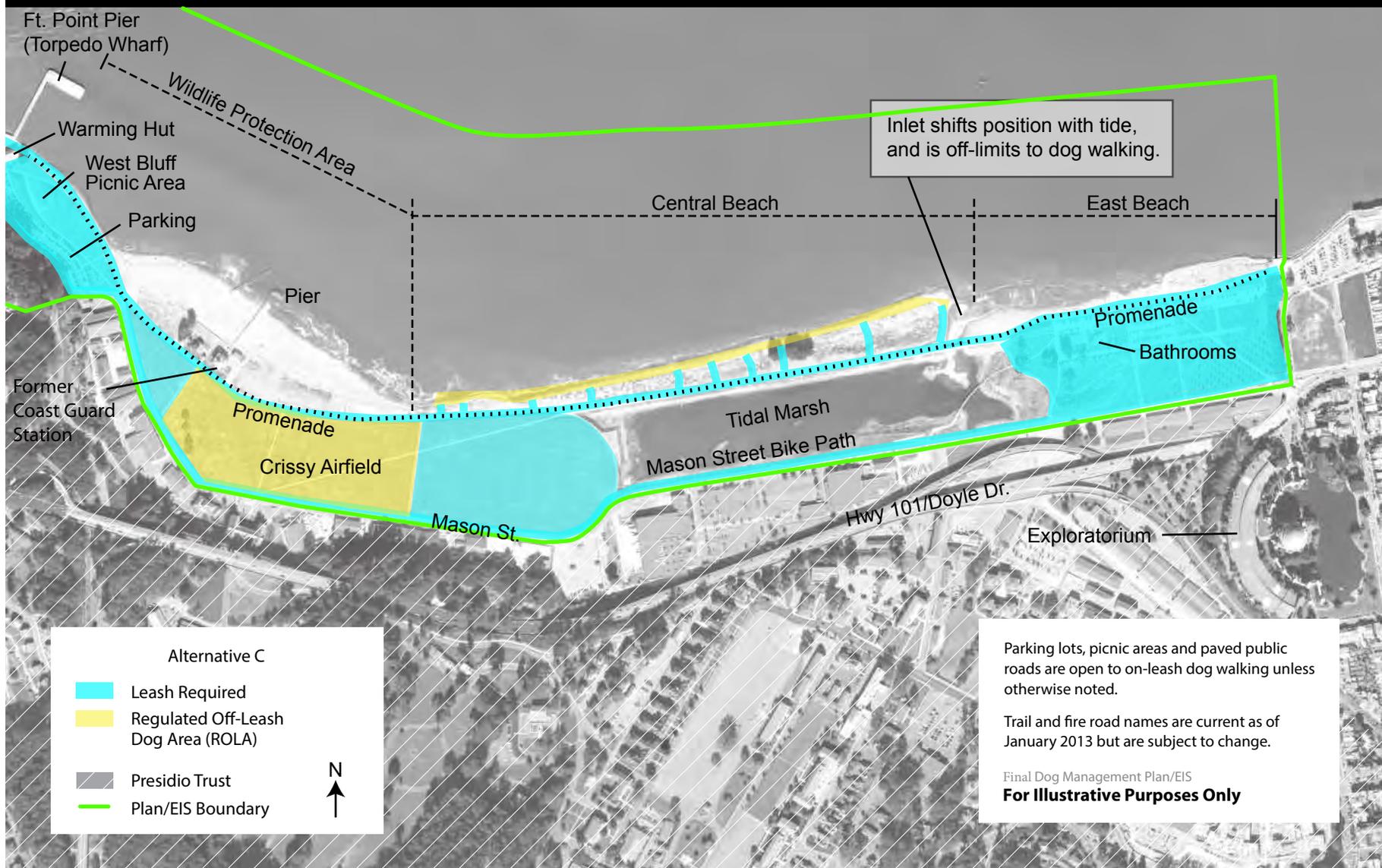
Map 10-A: Crissy Field



Map 10-B: Crissy Field



Map 10-C: Crissy Field



Alternative C

- Leash Required
- Regulated Off-Leash Dog Area (ROLA)
- Presidio Trust
- Plan/EIS Boundary

N
↑

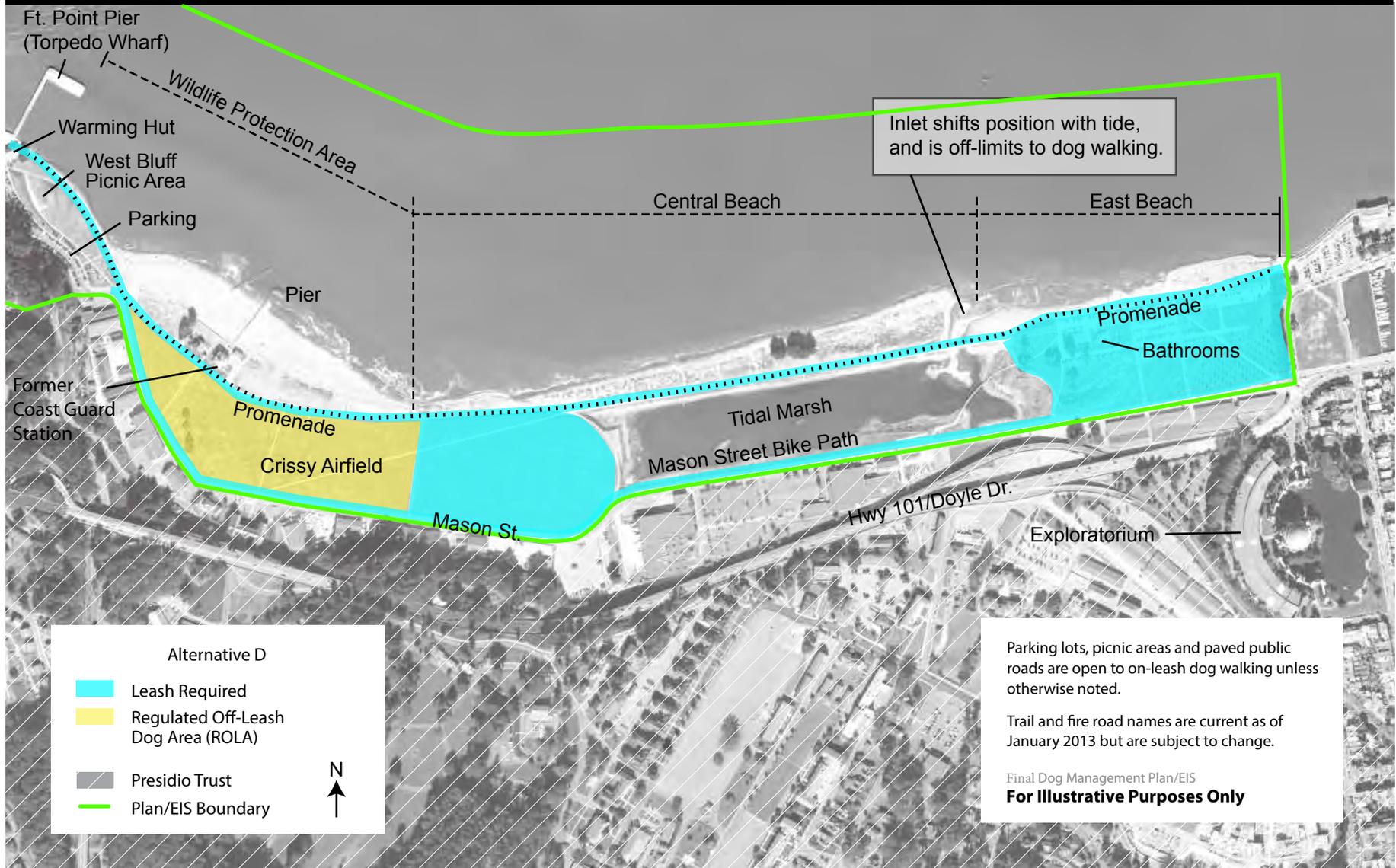
Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

Trail and fire road names are current as of January 2013 but are subject to change.

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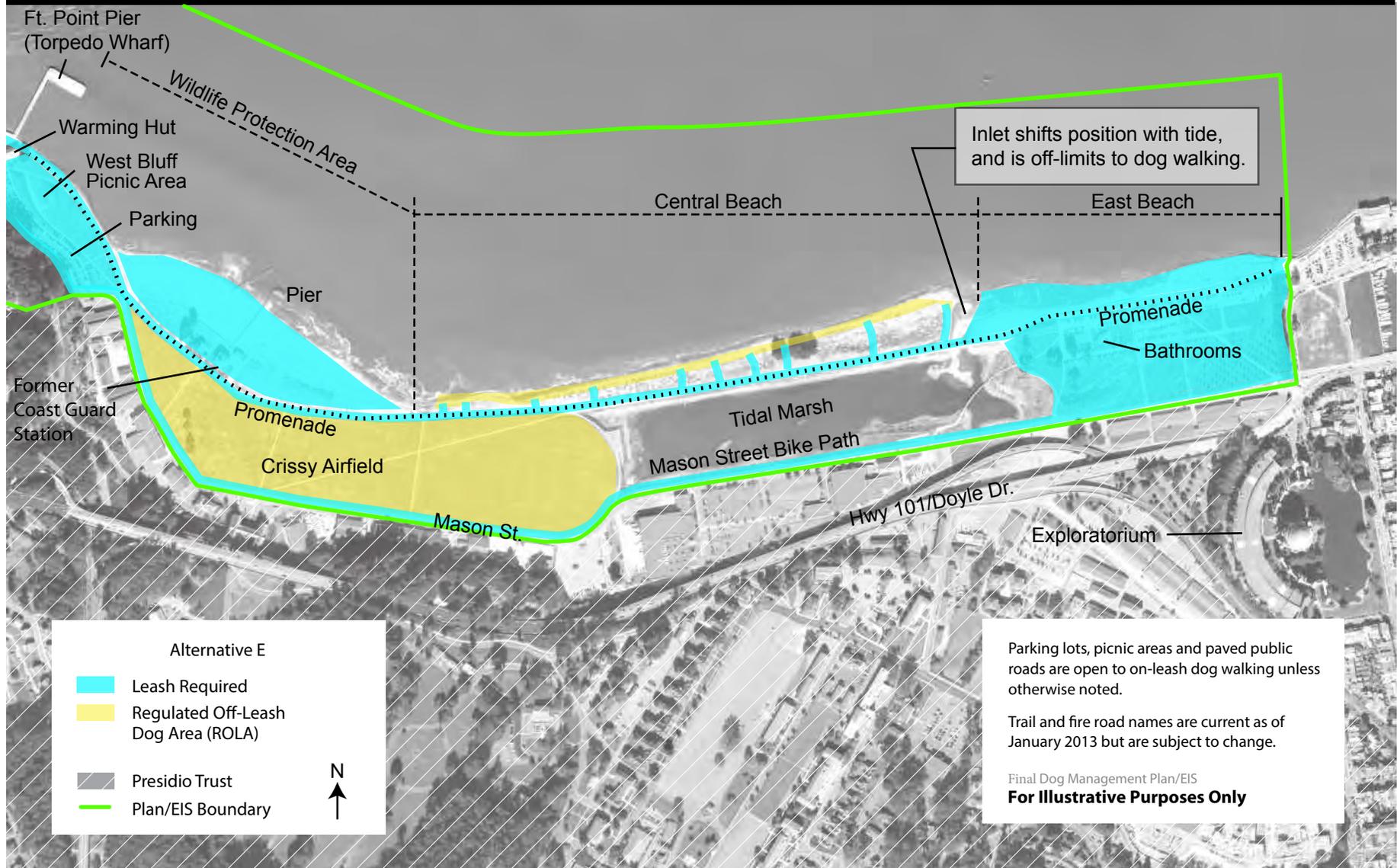
Note: The term Regulated Off-Leash Dog Area (ROLA) that was used in the draft plan/SEIS has been changed to Voice and Sight Control Area (VSCA) for the plan/FEIS.

Map 10-D: Crissy Field



Note: The term Regulated Off-Leash Dog Area (ROLA) that was used in the draft plan/SEIS has been changed to Voice and Sight Control Area (VSCA) for the plan/FEIS.

Map 10-E: Crissy Field

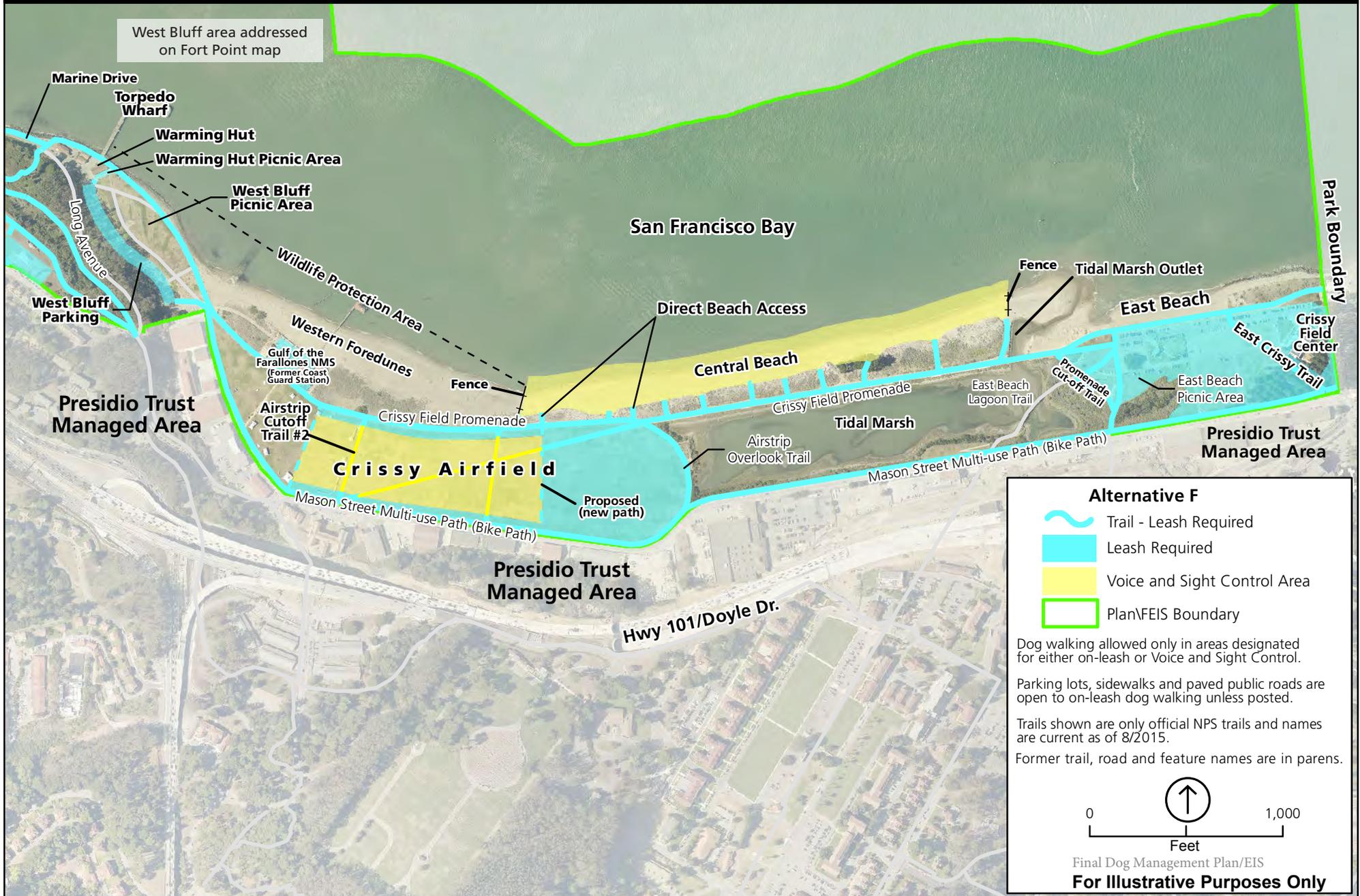


Note: The term Regulated Off-Leash Dog Area (ROLA) that was used in the draft plan/SEIS has been changed to Voice and Sight Control Area (VSCA) for the plan/FEIS.

Map 10F-1: Crissy Field

Golden Gate National Recreation Area

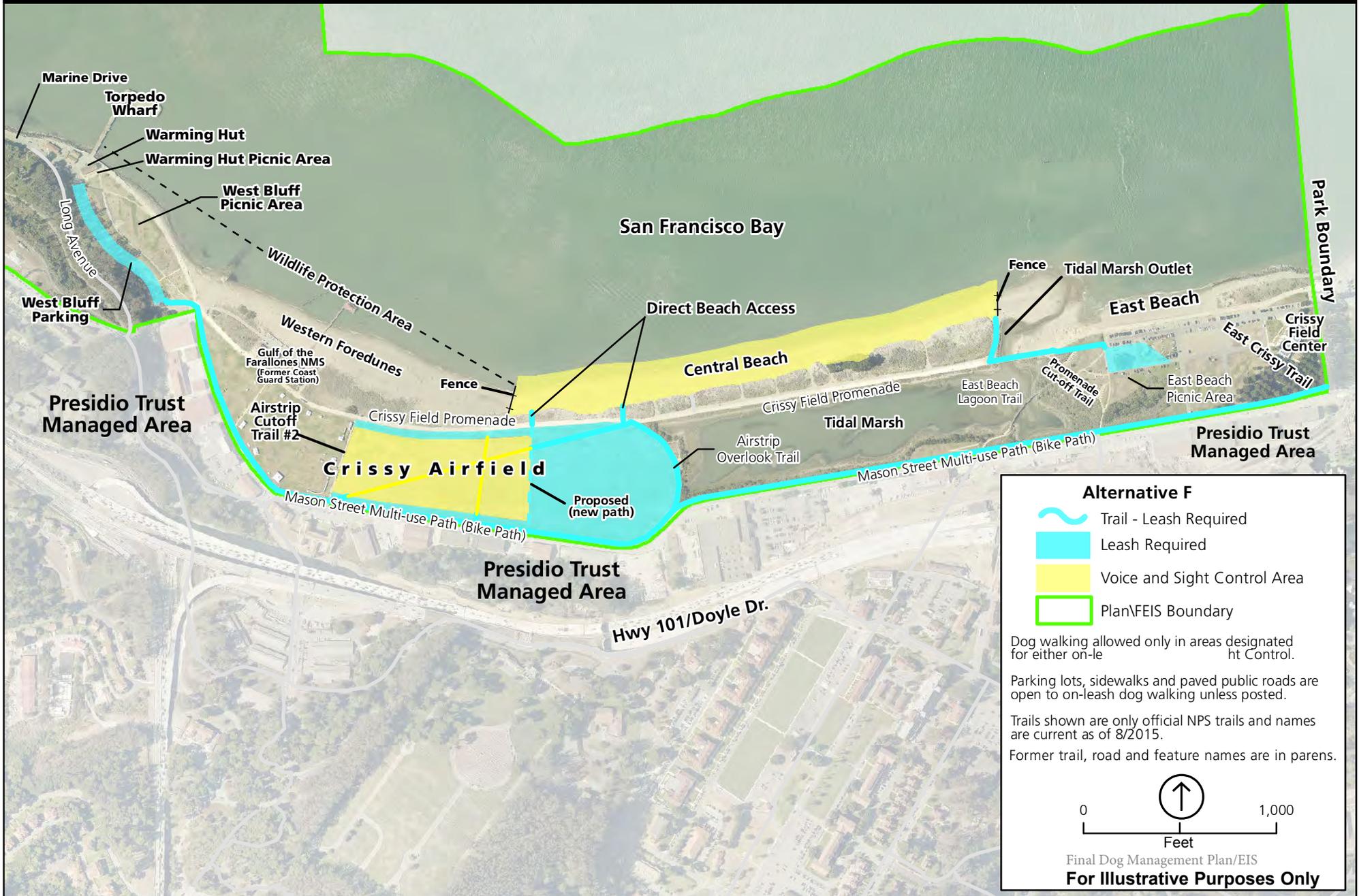
National Park Service
U.S. Department of the Interior



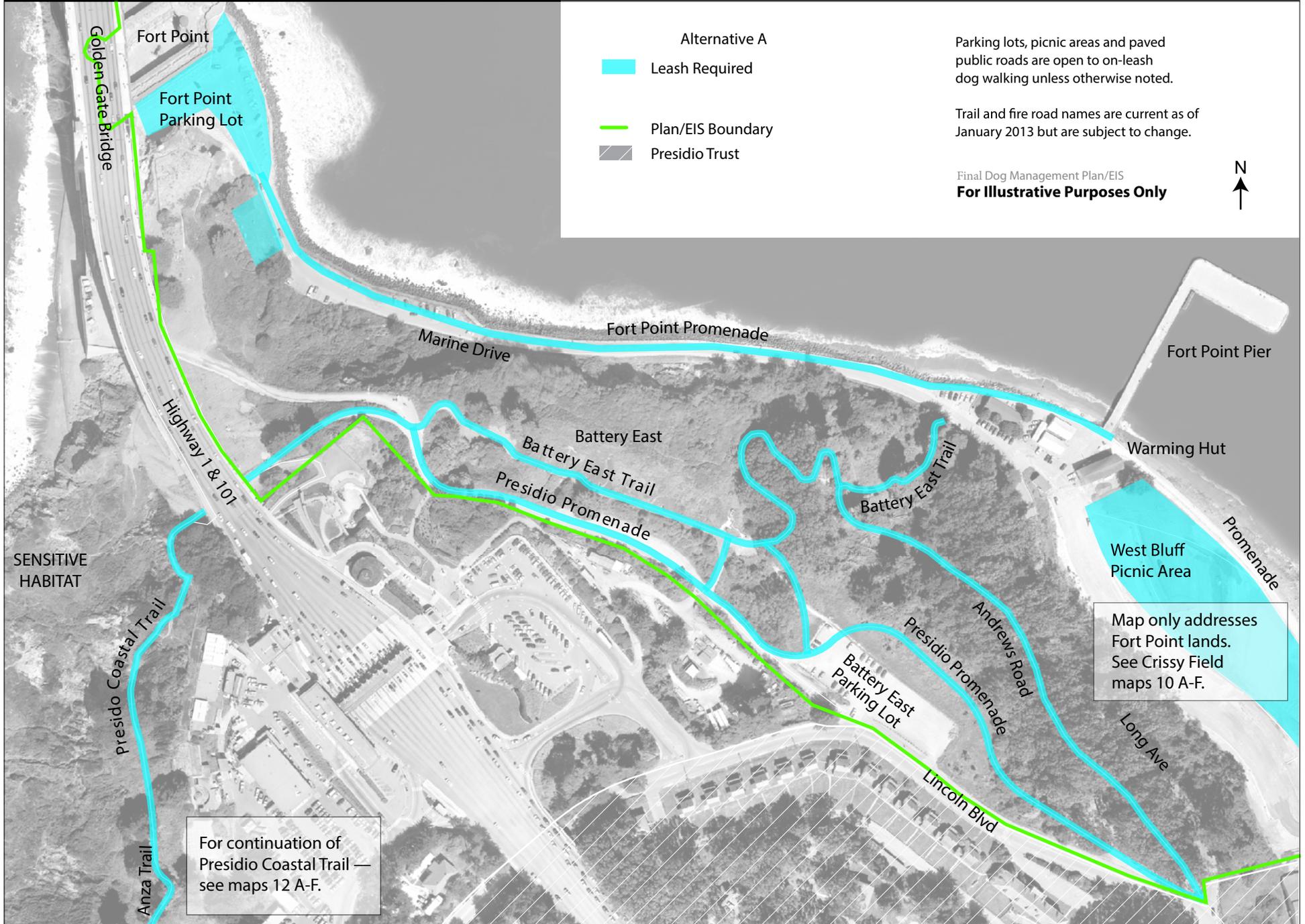
Map 10F-2: Crissy Field

Walking 4-6 Dogs Allowed with NPS Permit
Golden Gate National Recreation Area

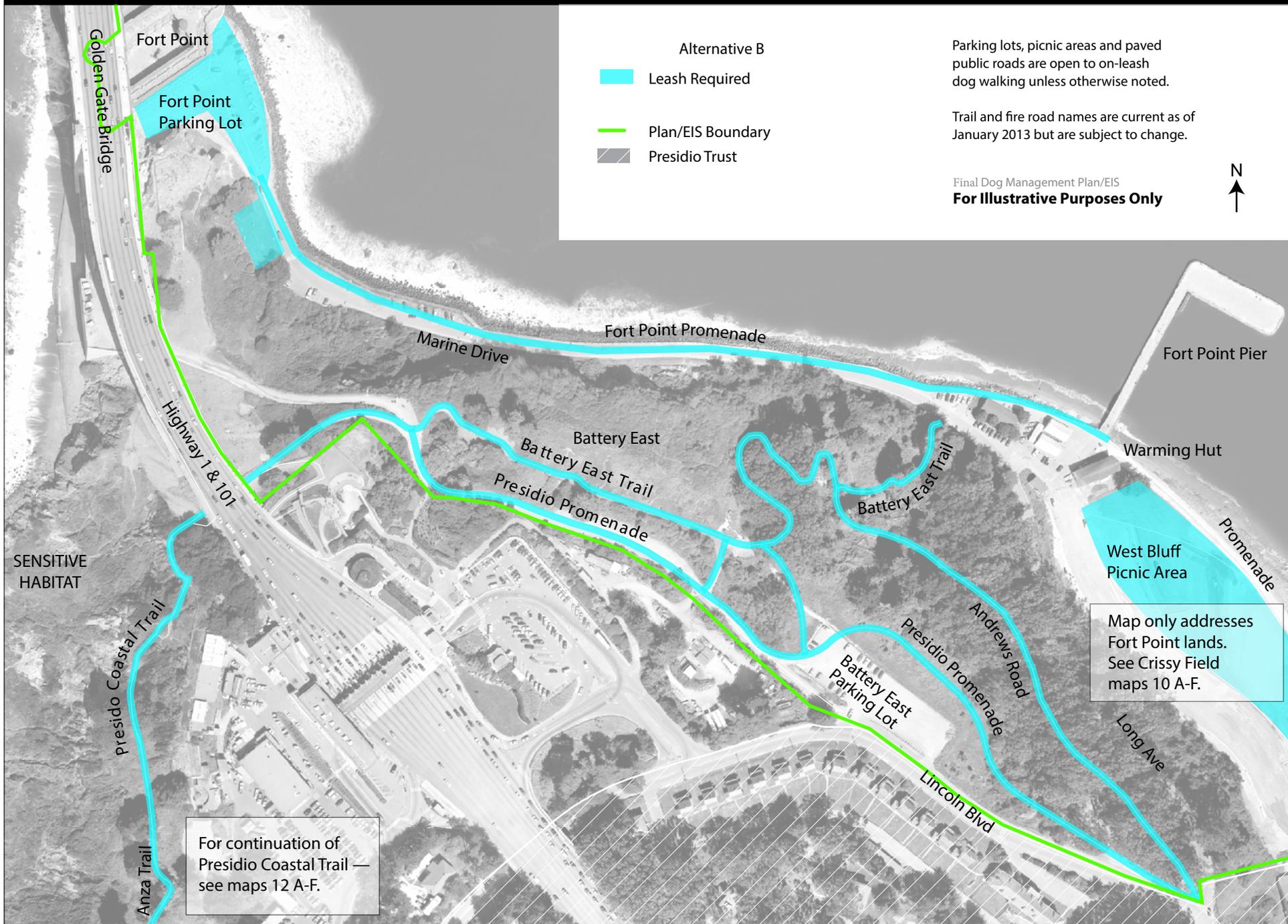
National Park Service
U.S. Department of the Interior



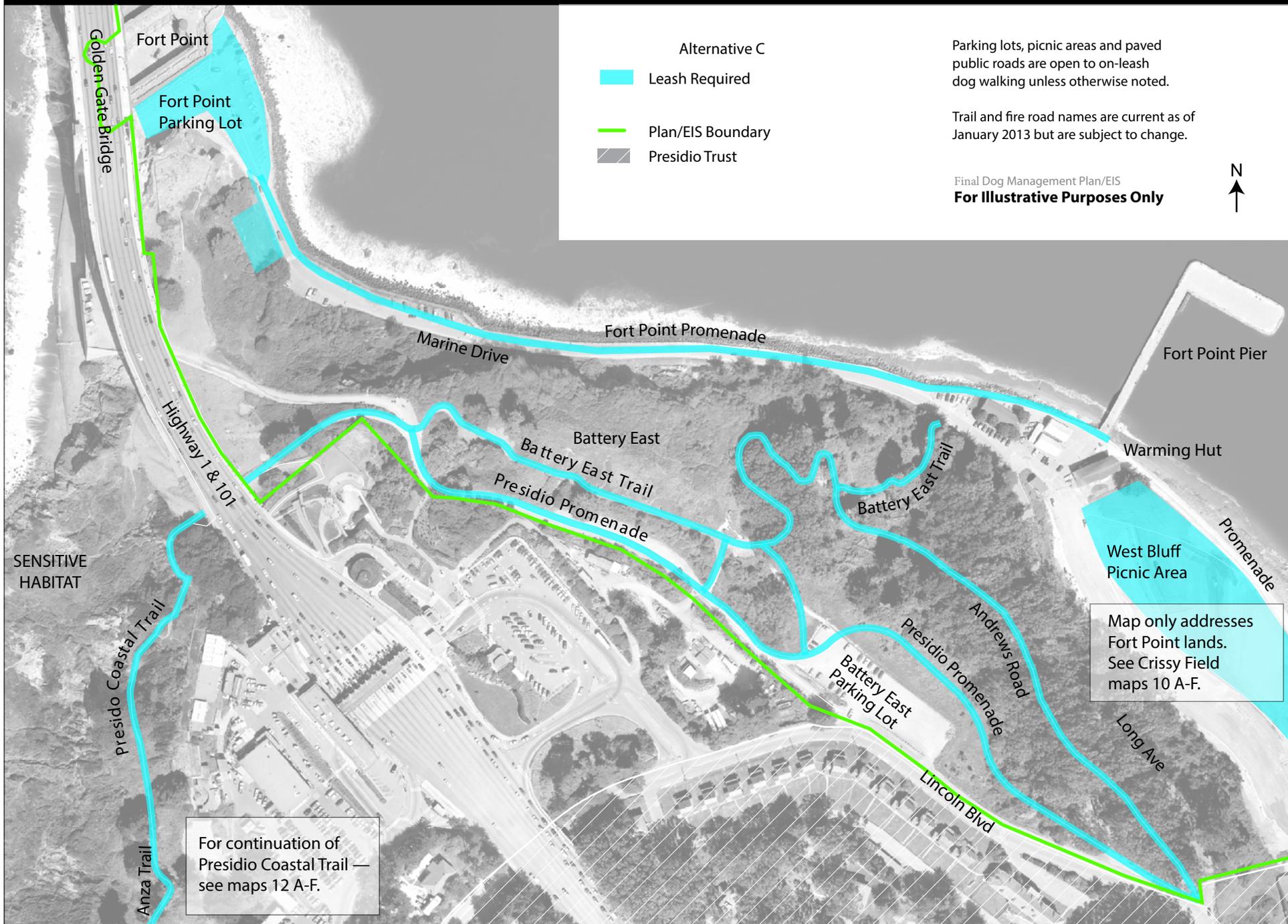
Map 11-A: Fort Point



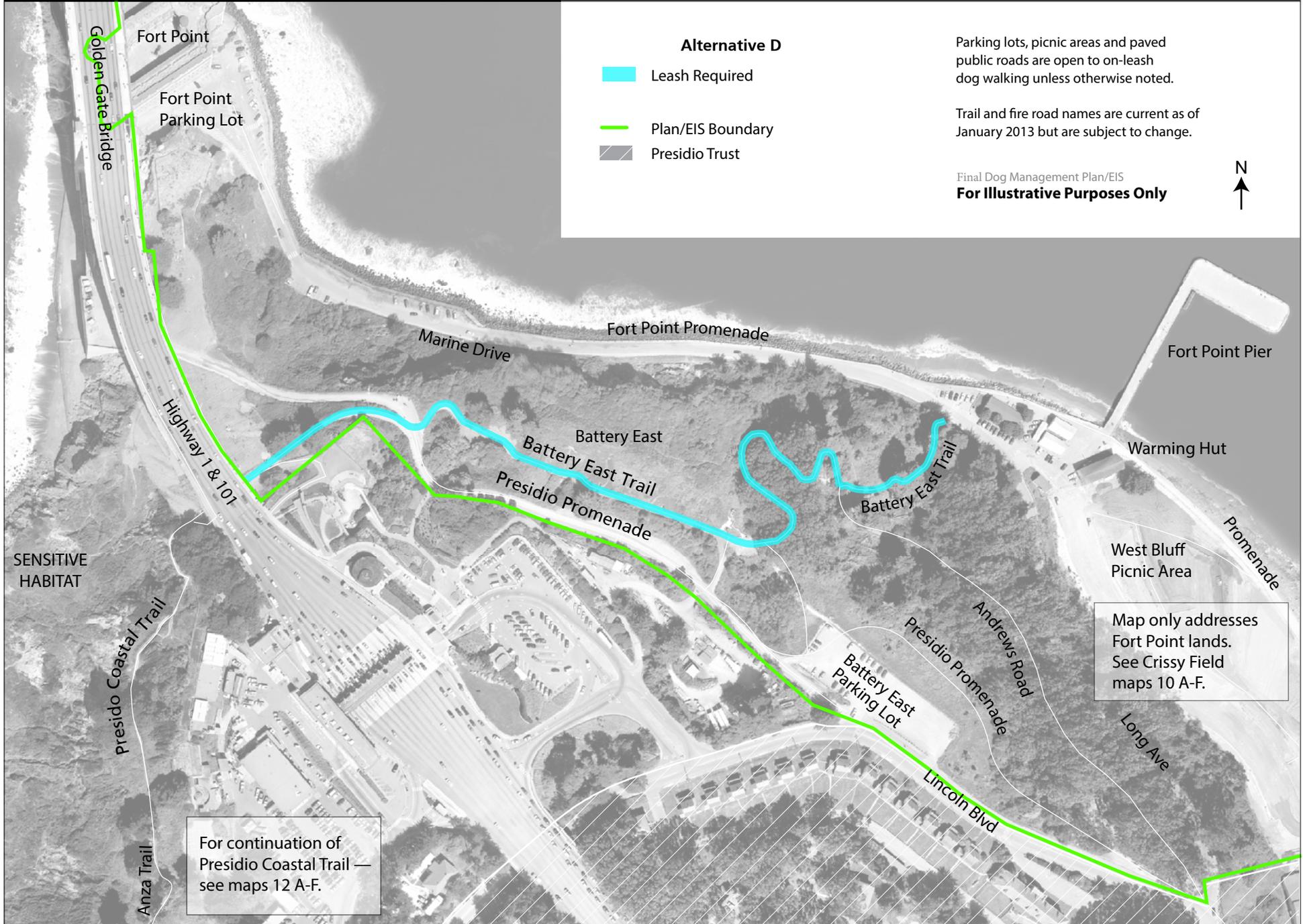
Map 11-B: Fort Point



Map 11-C: Fort Point



Map 11-D: Fort Point



Alternative D

- Leash Required
- Plan/EIS Boundary
- Presidio Trust

Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

Trail and fire road names are current as of January 2013 but are subject to change.

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SENSITIVE
HABITAT

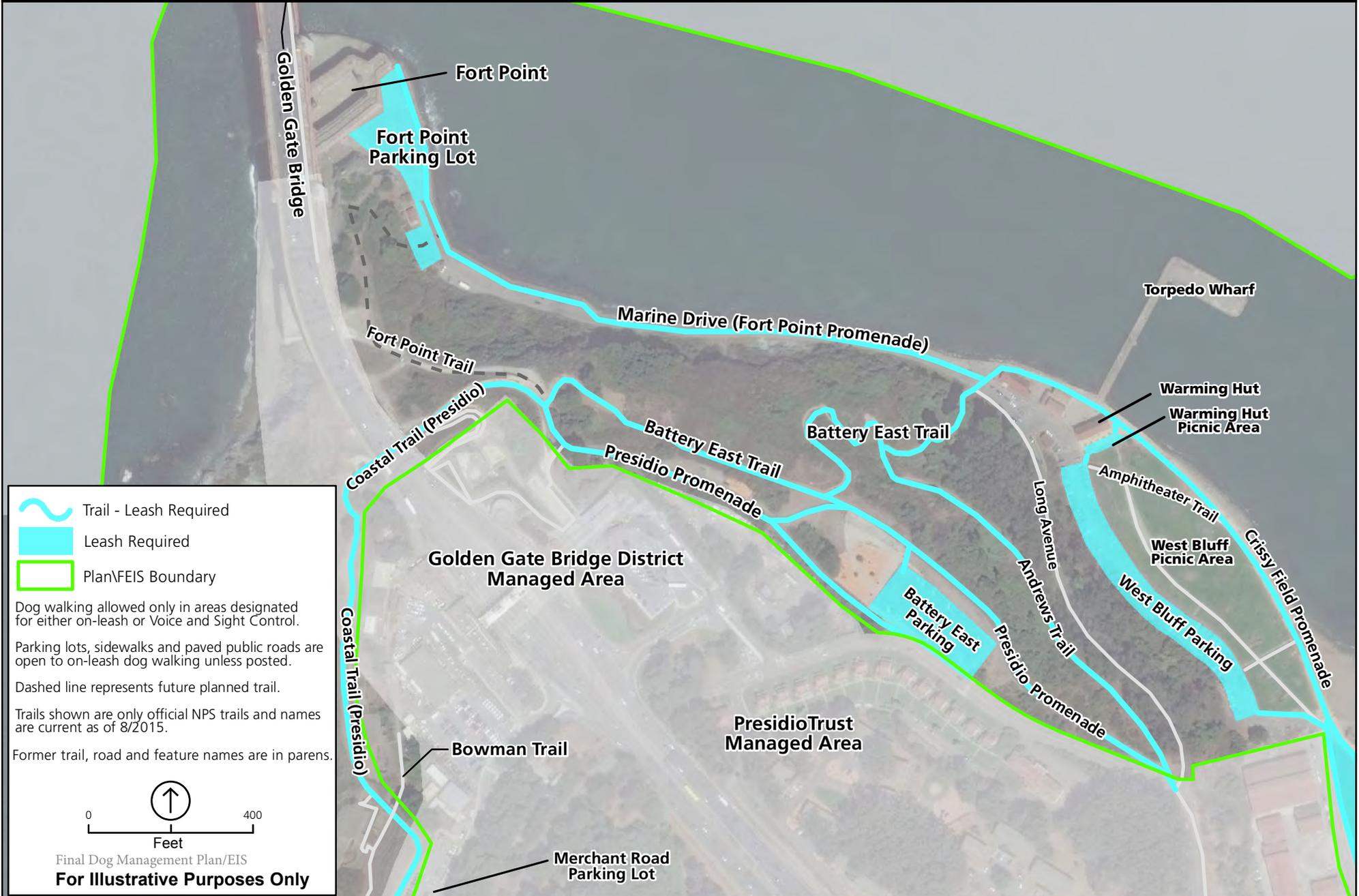
For continuation of
Presidio Coastal Trail —
see maps 12 A-F.

Map only addresses
Fort Point lands.
See Crissy Field
maps 10 A-F.

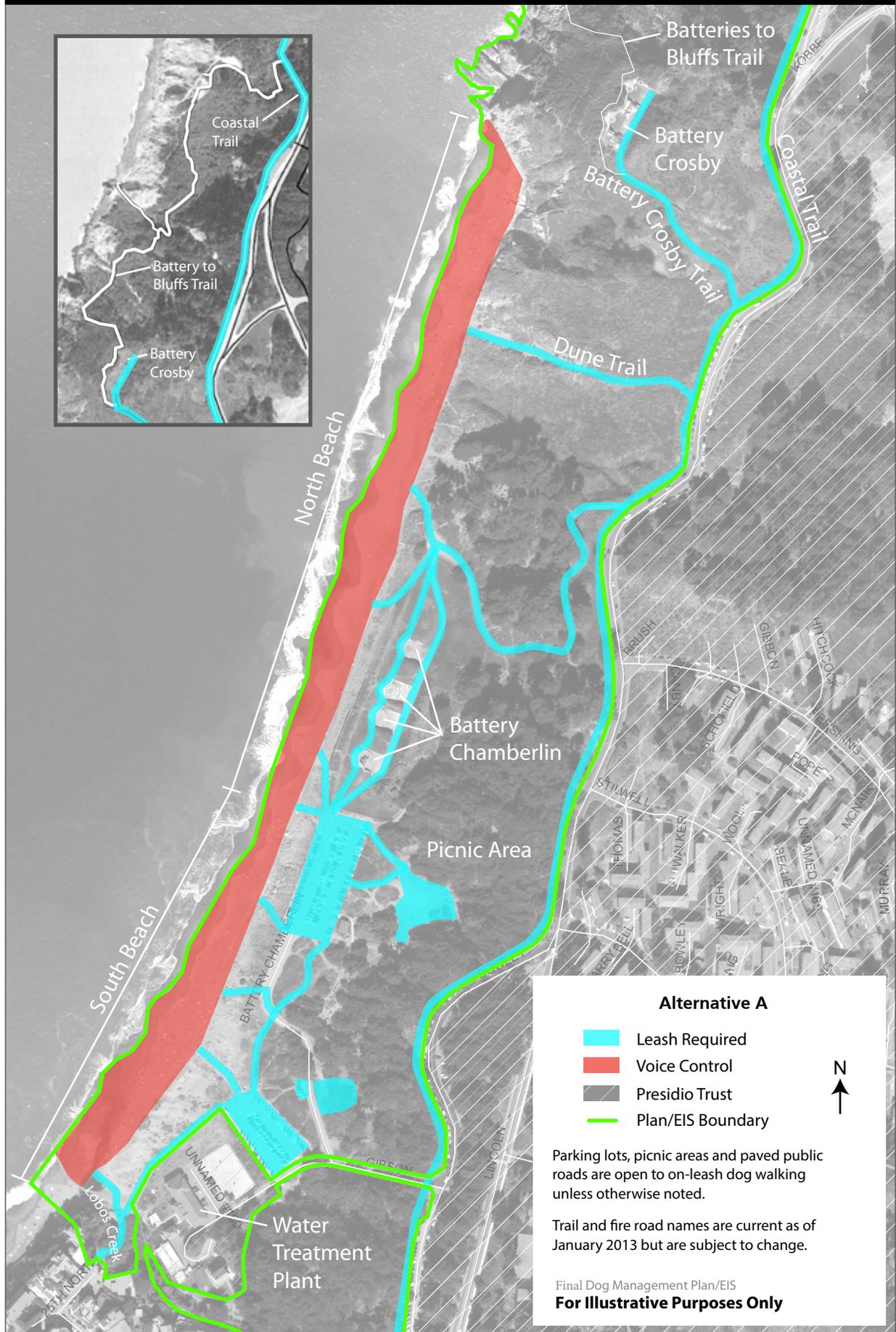
Map 11F: Fort Point

Golden Gate National Recreation Area

National Park Service
U.S. Department of the Interior



Map 12-A: Baker Beach



Alternative A

- Leash Required
- Voice Control
- Presidio Trust
- Plan/EIS Boundary

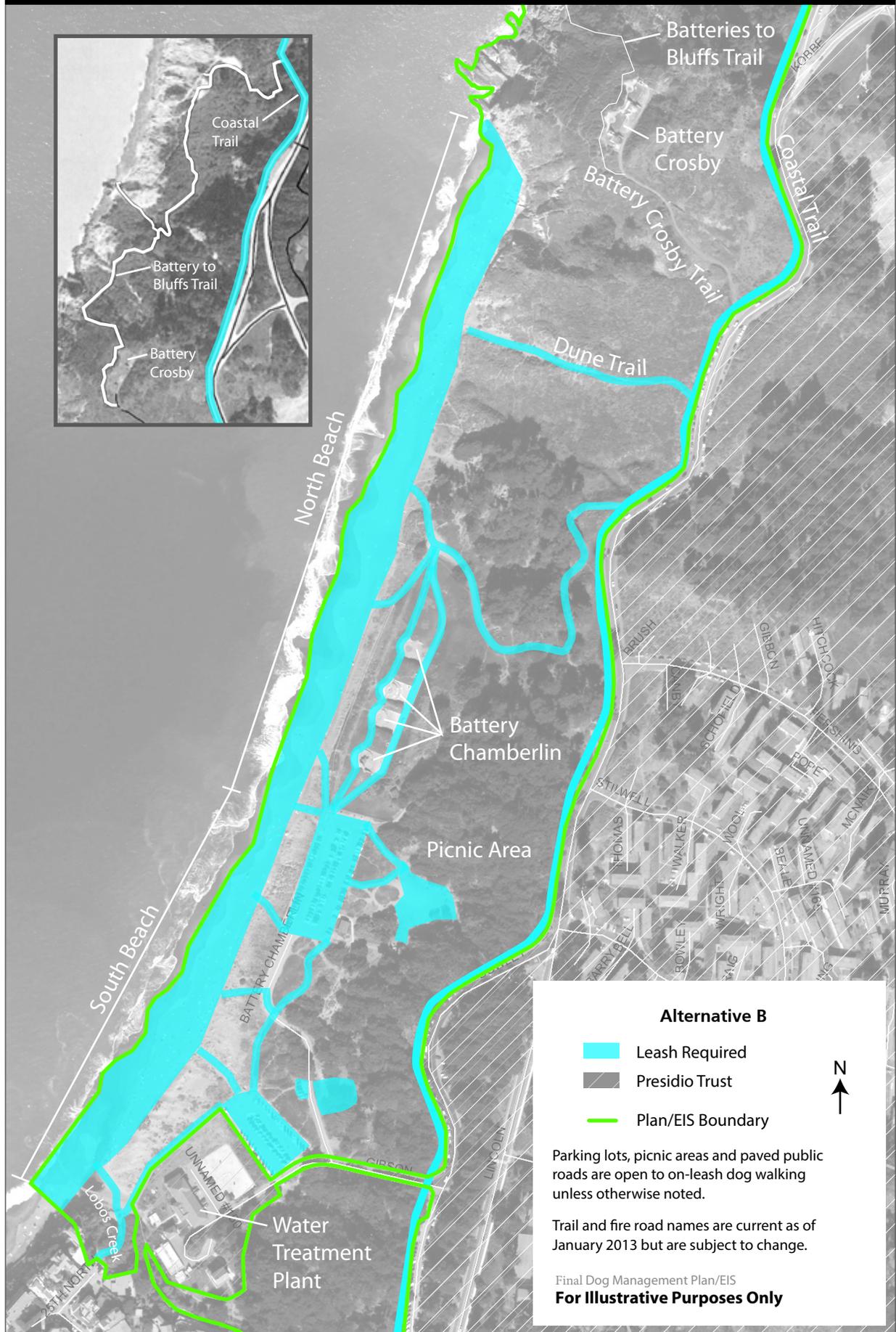
N
↑

Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

Trail and fire road names are current as of January 2013 but are subject to change.

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Map 12-B: Baker Beach



Alternative B

- Leash Required
- Presidio Trust
- Plan/EIS Boundary

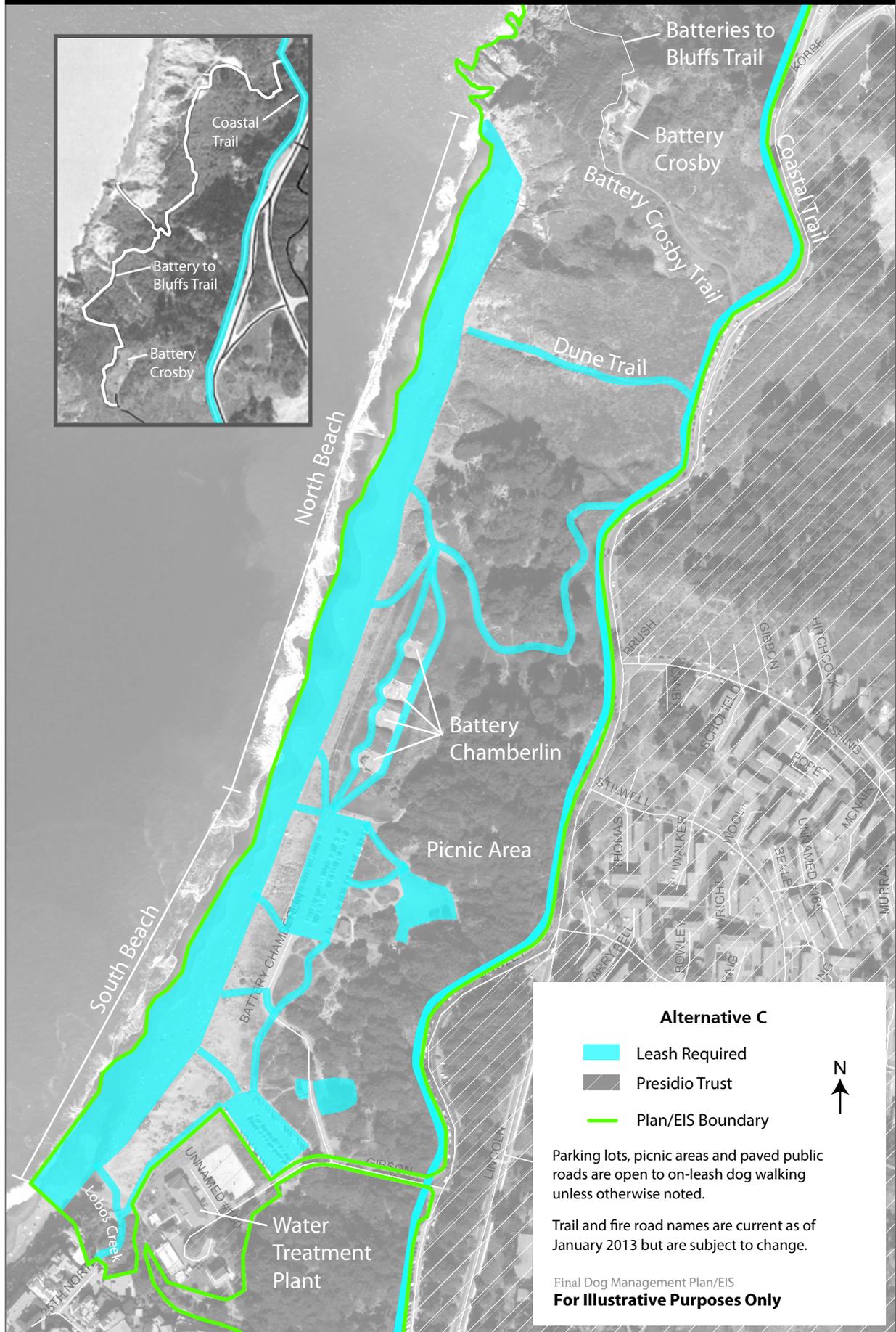
N
↑

Parking lots, picnic areas and paved public roads are open to on-leash dog walking unless otherwise noted.

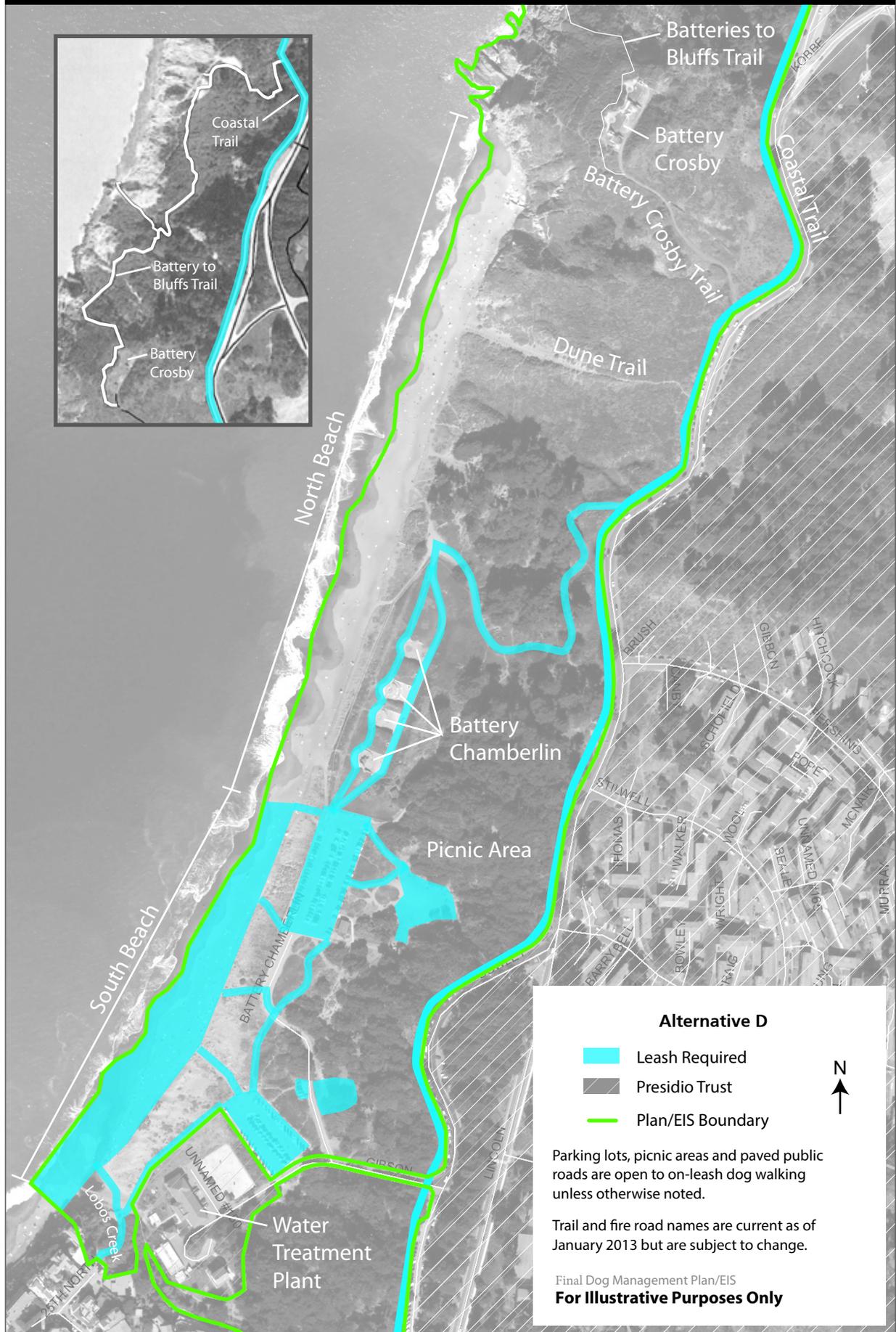
Trail and fire road names are current as of January 2013 but are subject to change.

Final Dog Management Plan/EIS
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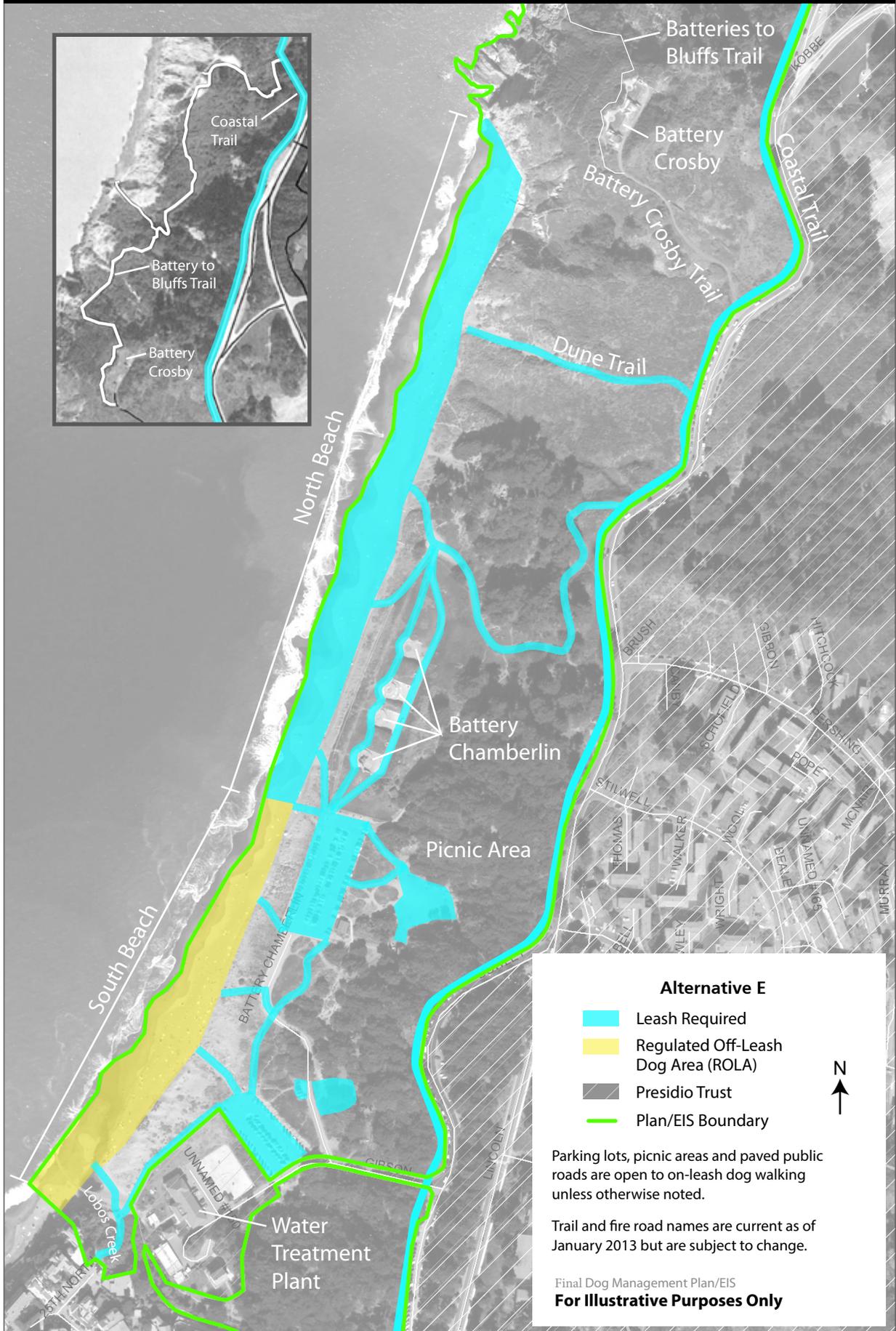
Map 12-C: Baker Beach



Map 12-D: Baker Beach



Map 12-E: Baker Beach



Note: The term Regulated Off-Leash Dog Area (ROLA) that was used in the draft plan/SEIS has been changed to Voice and Sight Control Area (VSCA) for the plan/FEIS.