#### OVERVIEW OF VISITOR USE AND EXPERIENCE

#### Visitor Use by Dog Owners

The San Francisco Bay Area is highly urbanized. In many parts of the Bay Area, GGNRA lands are the backyards of the citizens, and residents have come to expect public lands to be made available for dog walking and other recreational activities.Many dog walkers are specifically looking for an off-leash beach experience for their dogs. Because GGNRA manages the majority of the City of San Francisco bay and ocean shorelines, they come to this park.

To collect current and detailed information regarding visitor use of the park by dog owners, NPS conducted a survey in 2012 to measure customer satisfaction related to dog walking at the GGNRA sites and to determine where visitors would go if they were not satisfied. This survey, *GGNRA Dog Walking Satisfaction Visitor Study* (NPS 2012a), evaluated the perception of and satisfaction with the current on and off-leash dog walking policies by both dog walkers and non-dog walkers, and the potential for redistribution of use based on access changes.

Of the approximately 7,000 individuals contacted, only 897 responded to the survey. Respondents included 662 dog walkers, 20 commercial dog walkers, and 212 individuals who do not walk dogs at the park (NPS 2012a, 6). General satisfaction at the park was included in the survey using the following categories: “not at all satisfied,” “slightly satisfied,” “moderately satisfied,” “very satisfied,” and “completely satisfied” (NPS 2012a, 10). Of the dog walkers that responded to the survey, 431 individuals indicated that they were “not at all satisfied,” “slightly satisfied,” or “moderately satisfied,” with off-leash dog walking opportunities at the park. These same respondents were then asked if they would go (inside or outside GGNRA) to an alternative site for dog walking. The five most popular alternative sites indicated in the survey for off-leash dog walking included Pine Lake/Stern Grove, Golden Gate Park (all areas), McLaren Park, Ocean Beach, and Alta Plaza (NPS 2012a, 13-15). The five most popular alternative sites for on-leash dog walking included Pine Lake / Stern Grove, Golden Gate Park (all areas), McLaren Park, Marin Headlands Trails, and Alta Plaza (NPS 2012a, 19-21). In addition, a high number of answers to survey questions asking where they would go instead of their preferred dog walking locations if they were not satisfied, included “I don’t know.”

Of the dog walkers that responded to the survey, 244 individuals indicated that they were “not satisfied” or “slightly satisfied” with on-leash dog walking opportunities at their most frequently visited sites at the park and 206 individuals were “not satisfied” or “slightly satisfied” with off-leash dog walking opportunities their most frequently visited sites at the park (NPS 2012a, 11, 16). A total of 433 individuals indicated that they were “moderately satisfied” to “completely satisfied” with on-leash dog walking at their most frequently visited sites at the park and 470 individuals indicated the same for off-leash dog walking areas (NPS 2012a, 11, 16). Nearly half of the respondents indicated that their round trip travel to their favorite GGNRA sites is up to 10 miles (NPS 2012a, 7). Limitations to this survey included a small sample size of respondents; less than 13 percent of individuals responded to the survey.

In addition to the *GGNRA Dog Walking Satisfaction Visitor Study* (NPS 2012a), information on the current use of GGNRA sites has been compiled and is discussed in this section. For general purposes, overall visitor use and dog use at each GGNRA site is characterized as either low, moderate, or high (table 9). An area with high visitor use is defined as a park beach, trail, or other feature that is nearly always occupied and is often crowded; an area with moderate visitor use is defined as one that is usually occupied, but the area is only occasionally crowded; and an area with low visitor use is defined as one where visitors sometimes see other visitors, but the area is never crowded. Use by visitors walking dogs is considered high when it reaches >30 percent, moderate is 10–30 percent, and low is <10 percent. These qualitative thresholds were developed by the NPS with input by the Negotiated Rulemaking Advisory Committee. They were used by the Committee to provide feedback to the NPS on levels of use in park areas (NPS 2006g, 1–10).

Table 9. Summary of Visitor Use at Each Site in GGNRA

| Site | Visitor Use | Percentage of Visitors Walking Dogs |
| --- | --- | --- |
| Homestead Valley | Low—local usea | Lowa |
| Oakwood Valley | Moderate (hikers, runners, bikers; equestrian riders)—local usea,b | Moderatea |
| Muir Beach | High on weekends, moderate to high on weekdays (beachgoers, hikers)—local useb | Low to highb,c |
| Fort Baker | Moderatea | Lowa |
| Crissy Field | Moderate to high (walkers, bikers, runners, school group trips, sightseers)a,b | Low to high (private and commercial dog walkers)b,c |
| Crissy Field WPA | Low to moderate (walkers, beachgoers)a | Low to moderatea |
| Ocean Beach | Moderate to high (beachgoers, walkers, runners, birdwatchers, picnickers, equestrians, surfers)a,b | Low to highb,c |
| Ocean Beach SPPA | Moderate (beachgoers, runners)b | Moderatea |
| Mori Point | Moderate to high (walkers, runners, bikers)—local usea,b | Moderateb |
| Sweeney Ridge / Cattle Hill | Low (hikers, bikers)b | Low to moderateb |
| Rancho Corral de Tierra | Low to moderate (hikers, runners, bicyclists, equestrians) – local use a | Low to moderate |

aBased on best professional judgment of park staff.

bBased on the GGNRA Dog Management Plan/EIS Current Conditions table developed by the Negotiated Rulemaking Advisory Committee dated September 15, 2006 (NPS 2006g).

cBased on visitation surveys collected over a four day period in 2008 and 2011 (IEC 2011).

Table 9 includes results of a park visitation study conducted in 2008 and 2011 at six of the most popular GGNRA sites. On-site visitor count studies were conducted in 2008 at four of the beach sites addressed in this draft plan/SEIS (Rodeo Beach, Crissy Field, Baker Beach, and Ocean Beach) as part of the Cosco Busan Oil Spill Natural Resource Damage Assessment (USFWS 2009b). On-site count studies were conducted in August 2011 at two additional popular GGNRA beaches (Muir Beach and Fort Funston), in a survey titled *Assessment of Visitor Activities at Six Sites Within Golden Gate National Recreation Area* (IEC 2011). To ensure consistency, the 2011 survey was conducted using the same methodology as the 2008 surveys (IEC 2011, 10). On-site counts were conducted over a four day period which included two weekdays and two weekends. The counts were scheduled to cover nearly all daylight hours. Visitor counts were maintained on a tally sheet where field personnel recorded all visitors leaving the site. Every visitor was placed in one (and only one) of the following activity categories: hang glider (Fort Funston only), surfer/windsurfer/ kiteboarder, motorized boater, non-motorized boater, angler, biker, rollerblader/ rollerskater/skateboarder, picnicker, dog walker, runner/walker, crabber, other recreator, park staff/law enforcement, and school group (Rodeo Beach only). When visitors left in groups, each person in the group was categorized individually, according to the equipment that he or she was carrying and according to whether or not he or she was accompanied by a dog. For example, if two visitors left the park together but only one carried a fishing pole, then only one would be classified as an angler. Similarly, if two visitors were walking a single dog, only one would be classified as a dog walker. The only exception to this rule was for picnickers and boaters, as all members in the group were placed in a single category. Many visitors could not be categorized and were classified as “Other.” The “Other” category is a catch-all category capturing visitors who were not carrying identifiable equipment, did not have a dog with them, and were clearly not running or walking for exercise. Visitors classified as “Other” frequently included beach visitors and sightseers. During the 2011 visitor counts at Fort Funston and Muir Beach, field personnel counted the number of dogs in addition to counting people. The dog counts covered all dogs leaving the site, including dogs with visitors who were not classified as dog walkers (e.g., a dog with a fisherman or picnicker). Field personnel did not record whether dogs were on or off leash (IEC 2011, 1-4).

It is important to note that while all visitors could be classified, the activity classifications may not be accurate for all visitors. In particular, visitors who leave the site without identifiable equipment and without a dog are difficult to classify. There may be some error in determining whether or not visitors are dog walkers. For example, when two individuals were observed walking a dog, only one of the visitors were classified as a dog walker, but it is possible that both would describe themselves as dog walkers if interviewed. Conversely, some observers with dogs and classified as a dog walkers may not characterize their primary activity at the site as dog walking if they were interviewed; rather they may say they were walking, running, picnicking, or sightseeing.

It is also important to note that the survey conclusions were based on only four days of on-site observations. These four days may not accurately represent a mix of activities pursued by visitors throughout the year. Visitor activities can vary throughout the year due to seasonal variations in weather, the amount of available daylight for outdoor recreation, and the number of vacation days available. In addition to seasonal changes, the mix of visitor activities could have been impacted by unusual weather or special events occurring at specific sites. At Fort Funston, the annual hang gliding race and barbeque occurred during the on-site count weekend. There was also unusually warm weather during the weekend counts in 2008, which may have increased the number of visitors pursuing water-related activities such as surfing and swimming (IEC 2011, 21).

Monthly visitation estimates were developed by combining visitation estimates from the four-day count period with monthly vehicle counts provided by NPS. Automated vehicle counters are located at site entrances and count vehicles entering each site. Vehicle counters were used to determine the number of vehicles entering each site on each day of the four-day count period. The daily vehicle counts were combined with daily visitation estimates to estimate the number of visitors per vehicle. These visitors-per-vehicle estimates were then multiplied by the monthly vehicle counts to estimate monthly visitation at each site. Monthly visitation estimates were not developed for Rodeo Beach because the site does not have a vehicle counter at the main entrance (IEC 2011, 7-8). The seasonality of visitation did not appear to be particularly strong at the six sites surveyed. Visitation was fairly consistent throughout the year; however, the late spring to early fall months (May through September) generally had the highest visitation levels, while the late fall and early winter months (October through December) generally have the lowest. Across the sites with automated vehicle counters (excludes Rodeo Beach), July had the highest total visitation while December had the lowest. Results of the visitor use surveys at the six sites are shown in table 10 and are discussed below under the appropriate site in the paragraphs that follow (IEC 2011, 17).

The results of the visitation surveys conducted in 2008 and 2011 at Rodeo Beach, Crissy Field, Baker Beach, Ocean Beach, Muir Beach, and Fort Funston are discussed in more detail in the “Visitor Experience” section.

Table 10. Summary of Visitor Activities at Muir Beach, Rodeo Beach, Crissy Field, Baker Beach, Ocean Beach, and Fort Funstona,b

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| GGNRA Site | Runners/ Walkers | Dog Walkers | Picnickers | Surfers | Blader/ Skaters | Bikers | Anglers | School Groups | Hang Gliders | Others |
| Muir Beach | 10.3% | 5.5% | 3.0% | 1.8% | 0.0% | 0.8% | 0.0% | 0.0% | 0.0% | 78.5% |
| Rodeo Beach | 17.8% | 8.1% | 6.6% | 6.6% | 0.0% | 1.9% | 0.1% | 19.4% | 0.0% | 39.4% |
| Crissy Field (trails only) | 71.5% | 5.8% | 0.1% | 0.0% | 0.4% | 21.3% | 0.1% | 0.0% | 0.0% | 0.7% |
| Baker Beach (sand ladder only) | 86.8% | 6.9% | 1.5% | 0.5% | 0.0% | 3.2% | 0.0% | 0.0% | 0.0% | 1.1% |
| Ocean BeachC |  |  |  |  |  |  |  |  |  |  |
| North | 28.2% | 9.2% | 7.7% | 10.1% | 0.3% | 1.7% | 0.1% | 0.0% | 0.0% | 42.7% |
| South | 21.5% | 9.6% | 2.9% | 11.7% | 0.1% | 3.7% | 0.2% | 0.0% | 0.0% | 50.2% |
| Total | 25.1% | 9.4% | 5.5% | 10.8% | 0.2% | 2.7% | 0.2% | 0.0% | 0.0% | 46.2% |
| Fort Funston | 24.5% | 62.1% | 0.4% | 0.0% | 0.0% | 0.2% | 0.5% | 0.0% | 1.4% | 10.9% |

Source: IEC 2011, 10

a Observations at Rodeo Beach, Crissy Field, Baker Beach, and Ocean Beach are from November 2008. Observations at Muir Beach and Fort Funston are from August 2011.

b At each location, percentages are calculated as weighted average of weekday and weekend percentages, where weights reflect the relative visitation on weekdays versus weekends.

c Ocean Beach north is defined as the area of Ocean Beach north of Lincoln Way; Ocean Beach south is defined as the area of Ocean Beach south of Lincoln Way. To calculate the total visitation for Ocean Beach the estimated visitors to the north and the estimated visitors to the south were combined and used to calculate the average using these combined estimates. Therefore, the percentages for Ocean Beach total are effectively weighted averages of the percentages for north and south, with North receiving a higher weight because the visitation estimates are higher in the north.

#### Overview of 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 ROLAs, 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. 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 Donelly 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.

### 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 Whites 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 draft plan/SEIS 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.