National Park Service U.S. Department of the Interior

Social Science Program



| Expedited | l Approval | for NPS-S | ponsored | Public Surve | ys |
|-----------|------------|-----------|----------|--------------|----|
|-----------|------------|-----------|----------|--------------|----|

| Project Ti Submis | | | | | | | | |
|-----------------------------|--|--|--|--|--|--|--|--|
| D | Visitor Use Survey of Golden Gate National Recreation Area Park Lands April 10, 2008 (revised 5/21/08) | | | | | | | |
| | | | | | | | | |
| . Abstr | The Golden Gate National Parks Visitor Use study will provide the National Park Service and its partners, the Presidio Trust and Golden Gate National Park Conservancy, with information about trip and visitor characteristics, individual uses and activities, and opinions and perceptions of the park and its management at four sites within the Golden Gate National Recreation Area (GGNRA). The study will be conducted over five months in two parts: a short intercept survey to develop a visitor use population profile across the four park sites, and a follow-up survey to secure more in-depth information about visitors' experiences. Sampling will be conducted at San Francisco County sites within the park boundaries from June 15 through November 30, 2008. The surveys will inform the development of the GGNRA General Management Plan and provide insight about how to improve visitor experiences and engagement in stewardship of the parks. (not to exceed 150 words) | | | | | | | |
| Principal Inv | estigator Contact Information | | | | | | | |
| First Na | Emilyn Last Name: Sheffield | | | | | | | |
| т | tle: Professor | | | | | | | |
| Affiliat | California State University, Chico | | | | | | | |
| Street Addre | 813B Menges Street | | | | | | | |
| C | ity: Sausalito State: CA Zip code: 94965 | | | | | | | |
| Pho | ne: 530-570-9855 Fax: 415-561-4710 | | | | | | | |
| En | ail: esheffield@csuchico.edu | | | | | | | |
| Park or Prog | ram Liaison Contact Information | | | | | | | |
| First Na | me: Michael Last Name: Savidge | | | | | | | |
| Т | | | | | | | | |
| | tle: Director, Strategic Planning & Social Sciences | | | | | | | |
| Р | z i vivoi, | | | | | | | |
| | Strategic Planning & Social Sciences ark: Golden Gate NRA ark Superintendent's Office | | | | | | | |
| ı | Strategic Planning & Social Sciences ark: Golden Gate NRA superintendent's Office on: | | | | | | | |
| Office/Divis | Strategic Planning & Social Sciences ark: Golden Gate NRA superintendent's Office on: | | | | | | | |
| Office/Divis Street Addr | Strategic Planning & Social Sciences ark: Golden Gate NRA ark Superintendent's Office ark: Fort Mason, Building 201 | | | | | | | |

| Proje | ct Ir | nformation | | | | | | | | |
|-------|--|----------------------------|-----|--------------------------|-------|-------------------------------|------|---------------------|--------|-----------------|
| 5. | Park(s) For Which Research is to be Conducted: Golden Gate National Recreation Area | | | | | | | | | |
| 6. | Sur | vey Dates: | 6/1 | 5/08 (mm/dd, | /уууу |) to | 11/3 | 0/08 (mm/ | dd/yyy | yy) |
| 7. | 7. Type of Information Collection Instrument (Check ALL that Apply) | | | | | | | | | |
| | | Mail-Back Questionnaire | * | On-Site Questionnaire | | Face-to- Face Interview | * | Telephone Survey | | Focus Groups |
| | | Other (explain) | | | | | | | | |

8. Survey Justification:
(Use as much space as needed; if necessary include additional explanation on a separate page.)

Legal Justification: The National Park Service Act of 1916, 38 Stat 535, 16 USC 1, et seq., requires that the National Park Service (NPS) preserve the national parks for the use and enjoyment of present and future generations. At the field level, this means resource preservation, public education, facility maintenance and operation, and physical developments that are necessary for public use, health, and safety. Allocation of funding is to be roughly in proportion to the seasonally adjusted volume of use (P. L. 88-578, Sect. 6) and in consideration of visitor characteristics and activities for determining carrying capacity (92 Stat. 3467; P. L. 95-625, Sect. 604 11/10/78). Other federal rules (National Environmental Policy Act, 1969 and NPS guidelines) require data on visitors and visitor use to be incorporated into each park's general management plan.

Social science research in support of park planning and management is mandated in the *NPS Management Policies 2006* (Section 8.11.1, "Social Science Studies"). The NPS pursues a policy that facilitates social science studies in support of the NPS mission to protect resources and enhance the enjoyment of present and future generations (National Park Service Act of 1916, 38 Stat 535, 16 USC 1, et seq.). NPS policy mandates that social science research will be used to provide an understanding of park visitors, the non-visiting public, gateway communities and regions, and human interactions with park resources. Such studies are needed to provide a scientific basis for park planning, development, operations, management, education, and interpretive activities.

Management Justification: A new general management plan and area plans are now being formulated for park areas within the Golden Gate National Recreation Area. Such general management and area plans are required for all units of the National Park System and must be based on data concerning park use and users. The proposed study will help develop these baseline data. It will also help the park and its partners develop visitor use indicators and standards (required in all GMPs), monitor visitor use, become better informed about areas needing improvement, and understand how best to engage visitors in park stewardship.

Visitor Use Research to date has focused on developing this baseline at Muir Woods and Muir Beach (Manning, 2005), Alcatraz (Manning et al, 1998, 2007), and San Mateo (Manning, 2007a). Other research has been completed for trails (Tierney, 2004, 2005, 2006), a key recreation user group (Farrell, 2003), ethnic minorities (Roberts, 2007), pet management (Solop, 2002), and to aid in transportation planning (Transportation Management Plans, 2002a, 2002b). Similar baseline data for key park sites (Ocean Beach, Lands End, Presidio and Crissy Field) in San Francisco County are missing, and collection of this information is needed to support development of visitor use profiles and indicators for key San Francisco sites, and the park in general, as part of the park's General Management Plan process in 2008.

 Survey Methodology: (Use as much space as needed; if necessary include additional explanation on a separate page.)

Summary:

The methodology for the Golden Gate National Parks Visitor Survey consists of a two-phase survey. In the first phase, an eight-minute on-site intercept questionnaire will collect trip characteristics, basic patterns and preferences for site use, and demographic information. The on-site intercept also utilizes bilingual or multilingual survey personnel and questionnaires in three languages to increase the response rate from persons with limited English language proficiency. Two of the four park sites have significant visitation from Spanish-speaking and Chinese-speaking visitors. Each respondent who completes the on-site intercept will be asked to participate in a second follow-up telephone interview for more in-depth feedback, as recommended by a design panel of social science experts convened at the park in January 2008. This approach represents a good balance between cost-effectiveness, desired response rates, and the need to get stronger baseline information for these popular park sites.

The research methodology, including the two-phase design, the survey instruments, and the sampling plan, was developed using a design panel comprised of three survey research specialists and a six-person team of program and planning professionals from the parks. The research specialists included Dr. Dan Stynes from Michigan State (Professor emeritus), Dr. Fred Solop from Northern Arizona University, and Dr. Chase Harrison from Harvard University. Additional information about the design and administration of the Golden Gate National Parks Visitor Survey is provided below. The intercept and follow-up survey instruments are attached. Introductory scripts and reporting log are included as well.

Determining the research modes for the two-phase survey

Telephone interviews and self-administered questionnaires are the two most common survey research modes used in park research. Dillman (2007) notes that through the late 1970s telephone surveys using TDM (Total Design Method) techniques often achieved higher response rates than self-administered mail surveys. Since then, response rates for most surveys have declined, and both mail and telephone surveys require more persistence to achieve acceptable response rates (Dillman, 2007).

When industry-standard survey design techniques and protocols are used in general population surveys, response rates between 50% and 70% can be obtained with either type of survey. The response rate variation within a particular mode is generally larger than the between-mode variation. General population mail-back survey response rates range between 35% and 70% (Johnson, 2005). Random digit dialing (RDD) telephone survey response rates range from 35% to 60% (Johnson, 2005). Further, all survey researchers have noted declines in participation rates in recent years, regardless of the mode selected. Dillman (2007) indicates that special population surveys often exhibit response rates that are eight to ten percentage points higher than general population surveys. He also details a variety of techniques that can increase response rates, and reports numerous examples of special population surveys with returns rates between 70 and 75 percent (Dillman, 2007). This research effort is a special population survey; so higher return rates in the 65% to 70% range can be anticipated.

These return rates are consistent with recent surveys in national parks and at the Golden Gate National Recreation Area. In 2006, for example, the University of Idaho completed eleven Visitor Service Project surveys in national parks. These surveys were distributed on-site at national parks where people were requested to complete and return them by mail. Contact data were collected to send reminders. Response rates ranged from 63.3% to 81.1%. Seven of the survey response rates

ranged between 64.0% and 78%. (Data retrieved from the University of Idaho Park Studies Unit website).

Recent written on-site surveys at the Golden Gate National Parks have reported return rates of 60% to 70% (Manning, 2003, 2004, 2005, Tierney, 2004) and in the most recent 2007 Visitor Survey Card (NPS customer satisfaction survey), response rate at the park exceeded 90% (University of Idaho, 2007.) The telephone response rate for a recent GGNRA-sponsored general population telephone survey on GGNRA management topics also was 64% (Solop, 2002). These findings suggest that a follow-up survey response rate of 60% - 65% is achievable.

The design team recommended an on-site intercept as the preferred mode for the first phase of the survey. After careful consideration of each method, a telephone interview was selected as the mode for the follow-up survey. The follow-up telephone interview will be initiated within three to five days of the on-site survey using contact information provided by the intercept respondents. (A small sample of non-respondents will also be contacted and asked four questions (two forced choice and two attitudinal) to identify non-response patterns other than those associated with observable characteristics.) Other measures to assess and address non-response are described in that section below.

Among the primary reasons for this decision:

- 1) Overall response rates for both survey modes have been comparable in studies in the GGNRA.
- 2) All three professional public opinion survey organizations responding to the park's request for proposals recommended a telephone interview for the follow-up survey.
- The cost differences between the two follow-up survey modes were minor.
- 4) The major issues that have made random digit dial (RDD) surveys more challenging in recent years (e.g., unlisted numbers, fax machines and other equipment requiring dedicated telephone lines, the proliferation of multiple numbers within a single household, large numbers of mobile telephones, and increased individual reluctance to participate in telephone interviews) are not factors in this visitor study since participants will be recruited and can provide their preferred telephone contact numbers during the on-site intercept exchange.
- 5) Survey response rates are generally lower for ethnic minorities, immigrants, persons with lower levels of education and income, and persons with limited English language skills (Census, 2003, 2004; CHIS, 2003; Link, Mokdad, Stackhouse, Flowers, 2006; Galea & Tracy, 2007; Griffin, 2002), and mailback surveys among minority populations have been known to be especially difficult (APA, 2000; Floyd, 1999; Henderson, 1998; McAvoy, Winter, Wilson-Outley, McDonald, & Chavez, 2000; Stanfield & Dennis, 1993). Alternative approaches, such as telephone surveys, are recommended (Floyd, 1999, 2001; Gramann, 1996; Henderson, 1998; McAvoy et al., 2000; Stanfield & Dennis, 1993; Wicks & Norman. 1996).
- 6) McAvoy et al. (2000) suggested that telephone surveys are more appropriate than mailed or internet surveys for minority communities, and Roberts (2008, personal communication) stated that "interviewers matched by ethnicity and language skills are desirable and, more importantly, essential for greatest response."
- 7) Tierney, Dahl, and Chavez (1998) conducted telephone interviews of culturally diverse Los Angeles residents regarding outdoor recreation and stated: "An important survey concern with sampling diverse cultures is the language of the interview. We minimized bias against non-English speakers by translating the survey and making interviews available, in

English, Spanish, and Mandarin."

8) Experienced bilingual surveyors are readily available, offering a cost effective means to learn more about LEP urban visitors to the large, high volume urban GGNRA.

The use patterns and experiences of LEP park users are particularly valuable in an urban setting with high percentages of LEP and/or immigrant residents. Bay Area counties have substantial numbers of residents with limited English proficiency (LEP), with higher levels of oral fluency (compared to written fluency) in Spanish, Cantonese, and Mandarin.

(a) Respondent universe:

The respondent universe is all adult visitors, 18 years of age and older, visiting one of the four survey sites during the sampling period.

At park sites anticipated to be visited by large numbers of people with Limited English Proficiency (LEP), translated versions of the surveys will be available in up to three languages: Spanish, Chinese/Mandarin, and Chinese/Cantonese. Bi/multilingual intercept surveyors (English/Spanish, English/Mandarin, English/Cantonese) will be employed to help increase the participation rate of LEP visitors.

(b) Sampling plan/procedures:

Intercept Survey:

The population for the Golden Gate National Parks Visitor Survey will consist of a stratified random sample of adult visitors to the Golden Gate National Parks during the time period of June 15, 2008 through November 30, 2008. These months reflect the peak and shoulder seasons of the park sites.

The design panel recommended a stratified, dual-stage cluster sampling design. Visitors at four park sites (Crissy Field, Lands End, Ocean Beach, Presidio) in San Francisco County will be surveyed. Intercept points will include vehicle parking lots, trailheads, transit boarding areas, and pedestrian and bike exit gates. The sampling period includes peak and shoulder use periods at the parks.

A stratified, even random sample of weekends and weekdays will be selected for the four park area. A minimum of five weekdays and five weekend days of sampling will be completed at each of the sites, with sampling periods from 8 am -7:30 pm, given the park's visitation patterns.

To ensure a valid and reliable sample, approximately 1,600 initial on-site contacts will be made at each of the above four park sites, with an anticipated response rate of 60%. This will result in 960 completed intercept surveys at each park site. During each sampling day, at least one trained surveyor and one assistant, will be stationed at four intercept points within each of the four park sites.

During a sampling period, the surveyor will approach every nth visitor/visitor group to exit the site. [Note: the sampling intervals will be determined by site managers' field knowledge and actual counts, e.g., n=10 at sampling points with between 76-125 visitors per hour, n=5 at points with 31-75, and n=1 visitor/visitor group following a completion, where there are ≤ 30 visitors or visitor groups per hour]. If a surveyor encounters a group, he/she will seek the person in the group who is 18 or older old with a birthday closest to each month of year on a rotating basis (i.e., start with January, then for the next group February will be used, etc.) and ask that individual to participate in the survey. After completing this contact, the surveyor will ask the nth exiting visitor/visitor group to participate in the survey.

At each intercept sampling point, counts and refusal information will be recorded. Observable information (day, date, time, party size, gender, presence or absence of children in group) will be collected in a log. Reasons offered for non-participation (e.g., lack of time, lack of interest, language difficulties) will also be noted on the refusal log. This information can be used to address differential rates of participation in the intercept survey. A copy of the log is included.

Visitors will complete an on-site, self-administered questionnaire in the presence of a trained surveyor who will answer questions. Questions that are likely to emerge will be addressed during surveyor training. Park staff will also prepare a reference/fact sheet to assist the interceptors with common questions.

Intercept questionnaires will be collected on-site as they are completed. Respondents who agree to complete the follow-up survey will provide contact information so the research staff can contact the respondents for the follow-up telephone survey. Contact information (e.g., mail/email addresses and telephone numbers) and preferences for the follow-up survey (e.g., time of day, language of follow-up interview) will be collected. A brief rationale for complete contact information follows.

Mail/email addresses (in addition to telephone numbers) will enable the survey team to contact respondents by alternative means if a telephone number is illegible or if a telephone number is disabled, inactive or changed during the course of the survey. Mail and email addresses will also enable the survey team to provide additional park information to respondents who indicate a desire to learn more about events, activities, and opportunities in the parks. A wealth of printed and electronic information is available from the park, and "lack of information" is a commonly reported barrier to increased visitation, especially in underrepresented communities (Chavez, 2001; Roberts, 2007; Solop, Hagen, & Ostergren, 2003).

Mail/email addresses will also make it easier to identify international visitors to ensure proper arrangements to complete the follow-up survey. The interceptor will be able to ascertain the person's international status at a glance by looking at the mailing address and/or suffix on the email address (e.g., .fr for France, .uk for Great Britain, .de for Germany) on the Appreciation and Contact Information Card. The interceptor will then be able to discuss the most convenient means to complete the follow-up survey. The international visitor, for example, may prefer to complete the follow-up survey via her/his mobile telephone while still in the U.S. Or, s/he may prefer to complete the follow-up survey after returning home. International calling cards and telephone over IP now make global calling affordable and feasible for international guests speaking English, Spanish, Cantonese, or Mandarin. Also worth noting, since these are self-identifying respondents for the follow-up survey, the random digit dialing (RDD) protocols used in most general populations surveys will not be required and international visitors will not be excluded due to RDD of only domestic calls.

The site coordinator will collect completed intercept surveys each day and ensure that the contact cards and intercept surveys are properly prepared for further processing.

Follow-up Survey:

The major issues that have made random digit dial (RDD) surveys more challenging in recent years (e.g., unlisted numbers, fax machines and other equipment requiring dedicated telephone lines, the proliferation of multiple numbers within a single household, large numbers of mobile telephones, and increased individual reluctance to participate in telephone interviews) are not

factors in this visitor study since participants will be recruited and can provide their preferred telephone contact numbers during the on-site intercept survey.

Using contact information provided on-site, a follow-up telephone interview will be initiated within three to five days of the intercept survey. A telephone interview mode was selected for the follow-up for the following reasons:

- A telephone interview will minimize recall associated with time passage.
 Using a telephone mode for the follow-up will enable the park to
 complete both phases of the survey within one week of the initial
 intercept survey for the majority of survey respondents.
- 2) A prior general interest, telephone population survey for the park (Solop, 2002) yielded a high (64%) response rate. The response rate for the follow-up can be expected to exceed that of a general interest telephone survey since respondents have already indicated a willingness to participate and have provided a preferred contact number.
- 3) Telephone surveys are reported to have higher participation rates from groups typically under-represented (e.g., lower income and educational attainment levels, non-native speakers of English, persons of color) in national park settings (see above citations).
- 4) Bay Area counties have substantial numbers of residents with limited English proficiency (LEP), with higher levels of oral fluency (compared to written fluency) in Spanish, Cantonese, and Mandarin. Knowledge of the use patterns and experiences of LEP park users are particularly valuable to the NPS in an urban setting with high percentages of LEP and/or immigrant residents.
- 5) Experienced bilingual or multilingual surveyors are utilized and readilyavailable in the Bay Area, offering a cost-effective means to learn more about LEP urban visitors to large, high-visitation urban national parks.

The park is interested in generating valid and reliable visitor use information at each of four park sites. Toward that end, approximately 405 telephone interviews will be completed for each site. That is, of the 960 anticipated respondents on-site during the intercept survey (i.e., 60% of 1,600 initial contacts), 624 (65%) are expected to agree to do the follow-up, and approximately 405 (65% of those already agreeing to do follow-up and providing their contact information) will actually complete the follow-up telephone interview for each of the four sites. This will yield an estimated total sample for the telephone survey of 1,620. Contact information provided by visitors intercepted on-site will be utilized within 24 hours of their visit. A CATI system will be employed for the follow-up telephone interview. Bilingual interviewers will be available for survey respondents who indicate a desire to complete the follow-up survey in Spanish, Mandarin, or Cantonese. A comprehensive record will be maintained and provided on the disposition of each contact.

Established protocols will be utilized to increase survey response rates, including multiple follow-up contacts and conversion strategies for non-respondents to maximize completions. More information on the proposed administration of both survey instruments is summarized in the next section.

(c) <u>Instrument administration:</u>

Intercept Survey:

The Design Team recommended an exit survey for the on-site intercept. Visitors leaving the site will be approached and read this script by a trained surveyor: "Hello. I am [name and affiliation]. We are undertaking a study on behalf of the National Park Service to help improve this park site. Have you already been approached and asked to participate in our study?"

If yes, thank you for your time.

If no, continue with script.

"Would you be willing to participate in an eight minute survey? Participation is voluntary."

If visitor replies "YES", the surveyor will continue with: "Thank you. Here is the questionnaire. Please answer all the questions that apply to you. If you have any questions, please ask me. These maps will help you locate trail names and facilities for some of the questions."

If the visitor replies "NO," the surveyor will say: "Thank you. I hope you enjoyed your visit."

Note. Translated versions of the intercept survey will be available for visitors with limited English proficiency (LEP). Bilingual field staff will be recruited for park areas where site managers have noted frequent visitation from Spanish-speaking or Chinese-speaking persons with LEP.

Intercept Data Analysis and Reporting:

Intercept surveys will be assigned unique identification numbers for tracking. The site coordinator will review surveys for completeness and legibility. Open-ended responses will be coded using a coding table. When the survey fielding process is completed, data will be coded and entered into a statistical package for data analysis. Files will be reviewed for accuracy and cleaned to reflect proper variable and value labels.

Follow-up Survey:

The follow-up survey will be administered as a telephone interview to approximately 405 visitors initially contacted at each park: Crissy Field, Lands End, Ocean Beach, and Presidio. A certified, public opinion research center will conduct data collection, data entry, and data analysis using proven techniques in telephone survey research. Professional survey research staff will oversee the project, including training, fielding the survey, and analyzing and reporting the information. The research center will adhere to established telephone survey research design methods for quality control and data integrity.

A research administrator will oversee administration of the survey, certifying adherence to accepted professional standards for management of the survey research process. Established telephone survey protocols, including callback procedures, conversion protocols, and techniques to deal with other non-response issues will be utilized. These protocols have been tested and found to be effective in maintaining sample representativeness and reducing non-response bias and errors from certain groups of people not being available at particular times of the day. Bilingual interviewers will be available for survey respondents indicating a desire to complete the follow-up survey in Spanish, Mandarin, or Cantonese. In an effort to recruit hard-to-reach respondents, ensure adequate response rates, and minimize the potential for non-response error, interviewers will make a minimum of six callback attempts to each active telephone number in the sample database. To the extent possible, callback dates and times will be schedule to best match respondents' availability. Pre-screener hang-ups, post-screener break-offs, and initial (soft) refusals will receive up to three refusal conversion attempts.

When the survey fielding process is completed, data will be exported from CATI to a statistical analysis package. Files will be reviewed for accuracy and cleaned to reflect proper variable and value labels. All verbatim questions will be coded using a coding table. The data file can then be weighted, if necessary, to accurately account for nonrandom sampling error or to more accurately reflect the demographics of the visitor population at the park site.

A complete record and documentation of data management steps and procedures, including final response rates, number of contacts, and response rates by question will be included in the final report. The final report will include an analysis of the information obtained in the original intercept study as well as a substantive analysis of the data from the follow-up telephone survey.

A CATI system will be used. CATI systems automatically limit interviewers to valid responses, display scripts in the respondent's preferred language, branch to appropriate questions based on previous responses, and transfer data from completed interviews to a password-protected database on a secure server. CATI system administration enhances consistency between interviewers and enables them to enter respondents' answers, including verbatim responses to open-ended questions, directly into the database. CATI programming also displays essential administration instructions, including appropriate and standardized probes, and allows interviewers to enter special notes to explain any unusual circumstances or respondent comments. The CATI system also automatically records sample release dates, contact attempt data, and completion dates for each sample record.

(d) Expected response rate/confidence levels:

Intercept survey: Based on previous experience in conducting similar intercept surveys in the park (Alcatraz, 2006), it is expected that about 60% of visitors (or about 960 of 1,600 contacted at each of four sites) will be willing to participate. This represents a total for all sites of 3,840 completed intercepts. Findings from phase one are expected to have a margin of error of +/- 3.3 percentage points at the 95% confidence interval for each site. This is critical for each park area to be able to establish representative visitor inputs into its decisions on visitor-use indicators and standards and to determine what constitutes desirable visitor experience conditions for each of these sites in its new General Management Plan.

Follow-up survey: The expected response rate to the follow-up telephone survey is 65%. Findings in phase two are expected to have a margin of error of +/- 5 percentage points at the 95% confidence interval for each of the four sites. This precision level is critical for determining site-specific visitor use indicators and standards for each of the four areas and to provide a stable baseline for future monitoring..

(e) Strategies for dealing with potential non-response bias:

Non-response bias will be addressed in three ways. First, a comprehensive strategy will help maximize survey response rates by using well-trained survey teams, bilingual staff and instrumentation, and comfortable settings to complete the intercept survey. Bilingual instruments and staff, multiple callbacks, and refusal conversion techniques (Dillman, 2007) will also help to improve the response rate on the telephone follow-up.

Second, a small sample of non-respondents to the follow-up telephone survey will be contacted and asked to answer four questions (two forced choice and two attitudinal) to identify non-response patterns on attitudinal parameters of key interest to the park. The attached refusal conversion protocol for the follow-up survey describes the approach and questions to be asked.

Third, non-response bias will be examined by comparing selected characteristics of the sample population with characteristics observed and recorded for every group intercepted on-site (e.g., group size, gender, transportation/access mode) for the intercept and follow-up surveys. If necessary, data collected from respondents in the initial intercept survey can then be weighted (using cell-based post-stratification weighting procedures) to account for non-response on key demographic characteristics. The sample of follow-up respondents can also be

weighted to match the characteristics of the intercept sample. The results of the check for non-response bias in both the intercept and follow-up surveys will be reported and the implications for interpreting the results of each will be discussed.

(f) Description of any pre-testing and peer review of the methods and/or instrument (recommended):

All aspects of the research effort were designed and/or reviewed by one or more members of the team of social science experts formed to develop and advise on research methods, instrument design, and sampling (Dr. Dan Stynes, Dr. Fred Solop, and Dr. Chase Harrison. The intercept and follow-up surveys contain questions asked in previous NPS surveys.

Attachments:

- Literature Review
- On-site Intercept Survey (including the Appreciation and Contact Information Card)
- Follow-up Telephone Survey
- Refusal Conversion Protocol for the Follow-up Telephone Survey

Total Number of 10. **Initial Contacts** | **Expected Respondents:**

| a. | a. |
|------|------|
| 6400 | 3840 |
| b. | b. |
| 2496 | 1620 |

Estimated Time to Complete Initial Contact | Instrument (mins.):

| a. |
|------|
| 8 |
| min. |
| b. |
| 12 |
| min. |
| |

12. Total Burden

1109 Hours:

Reporting Plan: 13.

The results of this information collection will be presented in an internal agency report and will be available upon request. The report will include a summary of findings and question-by-question analysis of results. Univariate statistical distributions from each survey question will be included in the report, along with a number of cross-tabulations. Selected subgroup analyses will be completed. A complete record and documentation of data management steps and procedures, including response rates by question, will be included in the final report. A copy of the technical study report will be archived with the Social Science Program of the National Park Service for inclusion in the Social Science Studies Collection.

Combined list of references cited in expedited form or attached literature review.

American Psychological Association. (2000, January). Guidelines for research in ethnic minority communities. Council of National Psychological Associations for the Advancement of Ethnic Minority

Census Bureau. (2004). Meeting 21st Century demographic data needs—Implementing the American Community Survey report 11: Testing the use of voluntary methods-Additional results. Washington, DC.

Census Bureau. (2003). Meeting 21st Century Demographic Data Needs—Implementing the American Community survey report 3: Testing the use of voluntary methods. Washington, DC.

Chavez, D.J. (2001). Managing outdoor recreation in California: Visitor contact studies 1989-1998. USDA Forest Service General Technical Report 180. U.S. Government Printing Office.

CHIS (2003). The CHIS 2001 sample: Response rate and representativeness. California Health Interview Survey-Technical paper # 1. Available from the California Health Interview Survey, UCLS Center for Health Policy Research, 10911 Weyburn Avenues, Suite 300, Los Angeles, CA 90024.

CTMP. (2002a). See Transportation Management Plan.

CTMP. (2002b). See Transportation Management Plan.

David Binder Research (2000, November 16). Visitor count at Crissy Field. Unpublished report available from the Golden Gate National Parks Conservancy, Fort Mason, Building 201-3rd Floor, San Francisco, CA 94123.

David Binder Research (2002, February). Presentation to the Golden Gate National Park Association Marketing Committee. Unpublished report available from the Golden Gate National Parks Conservancy, Fort Mason, Building 201-3rd Floor, San Francisco, CA 94123.

- David Binder Research (2001). Member Survey. Unpublished report available from the Golden Gate National Parks Conservancy, Fort Mason, Building 201-3rd Floor, San Francisco, CA 94123.
- Dillman, D. A. (2007). Mail and internet surveys: The Tailored Design Method 2007 Update with New Internet, visual and mixed mode guide. John Wiley & Sons, Inc. Hoboken, New Jersey.
- Farrell, S. (2003.). Recreation values of community-based stewardship within the field of ecological restoration. Unpublished masters thesis, San Francisco State University.
- Floyd, M.F. (2001). Managing national parks in a multicultural society: Searching for common ground. *The George Wright Forum*, (18)2, 41-51
- Floyd, M. (1999). Race, ethnicity and use of the National Park System. National Park Service, 1: 1-24. Washington, DC: Department of the Interior.
- Galea, S. and Tracy, M. (2007). Participation rates in epidemiologic studies. Annals of Epidemiology, 17: 643-653.
- Golden Gate National Recreation Area (2002, March). Transportation Management Plan for the Marin Headlands and Fort Baker. Unpublished research report prepared by Nelson/Nygaard and Fehr & Peers and available from the Golden Gate National Recreation Area, 201 Fort Mason, San Francisco, CA.
- Gramann, J. H. (1996). Ethnicity, race, and outdoor recreation: A review of trends, policy, and research (Miscellaneous Paper R-96-1). Vicksburg, MS: U.S. Army Engineer Waterways Experiment Station.
- Griffin, D. H. (2002). Measuring survey nonresponse by race and ethnicity. Available from United States Bureau of the Census, 4700 Silver Hill Road, Washington, DC 20233-8700 (asa02 DG.pdf)
- Henderson, K. A. (1998). Researching diverse populations. Journal of Leisure Research, 30(1), 157-170.
- Johnson, D.R. (2005, October). Addressing the growing problem of survey nonresponse. Pennsylvania State University, Survey Research Center. Retrieved on April 2, 2008 from www.ssri.psu.edu/survey/Nonresponse1.ppt
- Link, M.W., Mokdad, A.H., Stackhouse, H.R., Flowers, N.T. (2006). Race, ethnicity, and linguistic isolation as determinants of participation in public health surveillance surveys. Preventing Chronic Disease, 3(1), 12 pages.
- Manning, Robert (2007a). Park use and users of San Mateo County units of the Golden Gate National Recreation Area.

 Unpublished report available from the Golden Gate National Recreation Area, Strategic Planning. Golden Gate National Recreation Area Division of Planning and Technical Services, Fort Mason, Building 201, San Francisco, CA 94123.
- Manning, R. (2007b). Alcatraz Island visitor survey. Unpublished data tables available from the Golden Gate National Recreation Area Division of Planning and Technical Services, Fort Mason, Building 201, San Francisco, CA 94123.
- Manning, R. (2005). Muir Woods visitor survey. Unpublished research cited in Manning, R., Budruk, M., Valliere, W., Hallo, J. (no date). Research to support visitor management at Muir Woods National Monument and Muir Beach. Unpublished research report available from the Golden Gate National Recreation Area Division of Planning and Technical Services, Fort Mason, Building 201, San Francisco, CA 94123.
- Manning, R. (2004). Muir Woods visitor survey. Unpublished research cited in Manning, R., Budruk, M., Valliere, W., Hallo, J. (no date). Research to support visitor management at Muir Woods National Monument and Muir Beach. Unpublished research report available from the Golden Gate National Recreation Area Division of Planning and Technical Services, Fort Mason, Building 201, San Francisco, CA 94123.
- Manning, R. (2003). Muir Woods entrance and exit studies. Unpublished research cited in Manning, R., Budruk, M., Valliere, W., Hallo, J. (no date). Research to support visitor management at Muir Woods National Monument and Muir Beach. Unpublished research report available from the Golden Gate National Recreation Area Division of Planning and Technical Services, Fort Mason, Building 201, San Francisco, CA 94123.
- Manning, R., Budruk, M., Valliere, W., Hallo, J. (no date). Research to support visitor management at Muir Woods National Monument and Muir Beach. Unpublished research report available from the Golden Gate National Recreation Area Division of Planning and Technical Services, Fort Mason, Building 201, San Francisco, CA 94123.
- Manning, R., Lawson, S., Wang, B., and Valliere, W. (1998). Research to support visitor management at Alcatraz Island. Unpublished research report available from the Golden Gate National Recreation Area Division of Planning and Technical Services, Fort Mason, Building 201, San Francisco, CA 94123.
- McAvoy, L., Winter, P.L., Wilson-Outley, C., McDonald, D., & Chavez, D. (2000). Conducting research with communities of color. Society and Natural Resources, 13, 479-488.
- National Park Service. (2002). Visitation NPS Stats: National Park Service Public Use Statistics Office. Retrieved in 2007 from the National Park Service web site: http://www2.nature.nps.gov/stats.
- NPS Customer Satisfaction/ Visitor Service Card Project. (2007). University of Idaho Park Studies Unit. Retrieved from http://www.psu.uidaho.edu/vsc.htm.
- Presidio (2000, December). Trails and bikeways user survey report. Unpublished research report available from the Presidio Trust Planning Department, P.O. Box 29052, San Francisco, CA 94129.
- Presidio (1999). 1999 pedestrian and bicycle count program technical memorandum. Unpublished research report available from the Presidio Trust Planning Department, P.O. Box 29052, San Francisco, CA 94129.

- Roberts, N.S. (2007.) Visitor/non-visitor use constraints: Exploring ethnic minority experiences and perspectives. General Technical Report, Golden Gate National Recreation Area, National Park Service. San Francisco, CA: San Francisco State University.
- Solop, F. (2002, December). Public opinion research telephone survey regarding golden gate national recreation area pet management issues. Unpublished report available from the Golden Gate National Recreation Area Division of Planning and Technical Services, Fort Mason, Building 201, San Francisco, CA 94123.
- Solop, F.I., Hagen, K.K. and Ostergren, D. (2003). The National Park Service comprehensive survey of the American public: Ethnic and racial diversity of National Park System visitors and non-visitors technical report. Retrieved February 28, 2007, from National Park Service Social Science website: http://www.nature.nps.gov/socialscience/products.cfm
- Stanfield, J.H. & Dennis, R.M. (1993). Race and ethnicity in research methods. Newbury Park, CA: Sage Press.
- Tierney, P. (2007a). Trail use and strategies to reduce social trails; Point Bonita and North Rodeo Beach study areas, Headlands District, Golden Gate National Recreation Area. Unpublished report available from the Golden Gate National Parks Conservancy, Fort Mason, Building 201-3rd Floor, San Francisco, CA 94123.
- Tierney, P. (2007b). Crissy Field visitation levels and visitor characteristics, fall 2000 and 2006. Unpublished report available from the Golden Gate National Parks Conservancy, Fort Mason, Building 201-3rd Floor, San Francisco, CA 94123.
- Tierney, P. (2005a). Summary and conclusion of Lands End Trail visitors project. Unpublished report available from the Golden Gate National Parks Conservancy, Fort Mason, Building 201-3rd Floor, San Francisco, CA 94123.
- Tierney, P. (2005b). Results of Lands End Trail Visitors Survey. Unpublished report available from the Golden Gate National Parks Conservancy, Fort Mason, Building 201-3rd Floor, San Francisco, CA 94123.
- Tierney, P. (2004, May 27). Visitor characteristics and opinions: Mori Point and Sweeney Ridge areas, Golden Gate National Recreation Areas. Unpublished report available from the Golden Gate National Parks Conservancy, Fort Mason, Building 201-3rd Floor, San Francisco, CA 94123.
- Tierney, P.T., Dahl, R., Chavez, D.J. (1998). Cultural diversity of Los Angeles County residents using undeveloped natural areas. Research Paper PSW-RP -236. Albany, CA: Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture; 76 p.
- Transportation Management Plans/CTMP (2002a). Transportation management plan for the Marin Headlands and Fort Baker. Unpublished research report available from the Golden Gate National Recreation Area Division of Planning and Technical Services, Fort Mason, Building 201, San Francisco, CA 94123.
- Transportation Management Plan/CTMP. (2002b, June). CTMP intercept interviews. Unpublished research report available from the Golden Gate National Recreation Area Division of Planning and Technical Services, Fort Mason, Building 201, San Francisco, CA 94123.
- Water Shuttle (2003, January). Technical Memorandum 2.6: Market demand survey—Analysis of survey results, GGNRA water shuttle access plan study. Unpublished report available from the Golden Gate National Recreation Area Division of Planning and Technical Services, Fort Mason, Building 201, San Francisco, CA 94123.
- Water Shuttle (2007, February). Technical Memorandum 2.7: Market demand survey–Summary report and data delivery, GGNRA water shuttle access plan study. Unpublished report available from the Golden Gate National Recreation Area Division of Planning and Technical Services, Fort Mason, Building 201, San Francisco, CA 94123.
- U.S. Census Bureau. (2005). American community survey. Quick facts summaries of nine San Francisco Bay Area counties retrieved February 2007 from the Census Bureau website: http://www.census.gov/acs/www/
- Wicks, B.E. & Norman, K.A. (1996). Improving African American survey response rates for leisure marketing and planning studies. Journal of Park and Recreation Administration, 14(2), 1-15.
- University of Idaho. (2007). NPS Customer Satisfaction/ Visitor Service Card Project. University of Idaho Park Studies Unit. Retrieved from http://www.psu.uidaho.edu/vsc.htm.
- University of Idaho Park Studies Unit. (2007). Visitor Service Project (VSP) studies. Retrieved from http://www.psu.uidaho.edu/vsp.reports.htm