

**SUPPORTING STATEMENT
CALIFORNIA RECREATIONAL GROUND FISH SURVEY
OMB CONTROL NO. 0648-XXXX**

A. JUSTIFICATION

1. Explain the circumstances that make the collection of information necessary.

In 1995, President Clinton signed [Executive Order \(E.O.\)12962](#) (as amended by [E.O. 13474](#)) which directed federal agencies to further existing efforts to “conserve, restore, and enhance aquatic systems to provide for increased recreational fishing opportunities nationwide.” Several steps to achieve this were highlighted including “providing access to and promoting awareness of opportunities for public participation and enjoyment of United States (U.S.) recreational fishery resources.” The National Oceanic and Atmospheric Administration’s (NOAA) [Next Generation Strategic Plan \(2010\)](#) reflects this view in the context of the [Magnuson-Stevens Fishery Conservation and Management Act](#) (MSFCMA 2007) by stating that “[e]xpanded recreational and commercial fishing opportunities” is a metric by which to measure progress toward the objective of achieving “sustainable fisheries and vibrant communities.” In addition, improving “socio-economic data collection will allow [fisheries] managers to evaluate and improve the social sustainability of recreational and commercial fishery programs.”

The proposed survey will provide socioeconomic data that will contribute to enhanced understanding and improvement in management of one of California’s most diverse and complex fisheries – the recreational groundfish fishery. This fishery includes over 20 species of rockfishes, as well as greenlings, cabezon, lingcod, and scorpionfish. Four rockfishes taken in the California recreational fishery (cowcod, bronzedspotted, canary, and yelloweye) have been declared overfished by the Pacific Fishery Management Council. To help rebuild these stocks, the California Department of Fish and Wildlife (CDFW) has devised a complex suite of regulations (bag and size limits, season/area/depth closures, non-retention of overfished stocks) to reduce encounters with overfished and other weak stocks while maintaining some opportunity to fish the healthier stocks that co-mingle with weak stocks in the fishery. Because different groundfish stocks have different life histories, the distribution of individual stocks varies widely along the California coast. To account for these differences, CDFW has refined its management by dividing the state into five areas and customized some of its regulations to suit the particular mix of groundfish stocks caught in each area.

The objective of this survey is to obtain data on California’s recreational groundfish fishery that is currently lacking and is being sought by the National Marine Fisheries Service (NMFS) and CDFW in order to better manage the fishery. The survey will address a number of recurring questions regarding: 1) the effects of groundfish regulations on angler behavior; 2) groundfish species preferences, and 3) preferences/attitudes regarding potential regulatory changes. Also, CDFW routinely collects data that are used to estimate total groundfish “fishing effort” (angler trips). However, information on participation (number of groundfish anglers) is lacking. The proposed data collection will provide estimates of groundfish fishery participation, as well as up-to-date estimates of expenditures per angler trip. Participation estimates are important in regulatory analysis for defining the universe of anglers potentially affected by regulatory

changes. Expenditures are important for estimating the economic impact of the fishery on local economies (i.e., jobs and income generated through the multiplier effect).

2. Explain how, by whom, how frequently, and for what purpose the information will be used. If the information collected will be disseminated to the public or used to support information that will be disseminated to the public, then explain how the collection complies with all applicable Information Quality Guidelines.

How this information will be collected

The proposed data collection is a new, one-time data collection. The survey will be implemented once in the spring of 2014, pending OMB approval, following protocols outlined by Dillman et al (2009) for implementing a mail-based survey. Mail-based surveys are a common mode used by NMFS for the collection of fisheries-related data.

Justification for using a mail-based mode of data collection

For this data collection, a voluntary, mail-based survey instrument is the preferred mode. The survey questionnaire is 15 pages, including cover page and cover letter.

Other survey modes were considered but deemed less suitable for this data collection for the following reasons:

- A Web-based survey was not possible for this data collection due to the nature of the sample frame, which will be provided by CDFW and the Pacific State Marine Fisheries Commission (PSMFC). CDFW and PSMFC do not collect e-mail addresses of recreational anglers during their routine data collection activities. They collect only names, telephone numbers, and mailing addresses. A Web-based survey may not be suitable in any case, as survey results would likely be biased by systematic exclusion of anglers who do not have access to the Web or are less adept at using the Web.
- A telephone survey was considered inappropriate for this data collection due to the number of questions and the multiple scenarios that anglers are asked to consider in responding to some of the categorical questions – which would be difficult to convey on the telephone. Additionally, hiring and training interviewers to conduct a telephone survey would have been cost-prohibitive.
- Similar to the telephone survey, in-person interviews were also not well suited for this data collection due to the cost-prohibitive and time consuming efforts of hiring, training, and deploying interviewers statewide.

Identifying an appropriate sample frame

Identifying an appropriate sample frame is critical for ensuring that survey results are credible and representative of the angling population. CDFW and PSMFC are crucial partners in this survey. PSMFC conducts a routine telephone survey of saltwater anglers randomly selected from CDFW's electronic database of all fishing license holders in California. CDFW conducts routine dockside sampling of anglers randomly selected at fishing sites along the California

coast. These two data collection programs will provide the sample frame for the proposed survey. Specifically, based on information provided by anglers contacted in these two programs, CDFW and PSMFC will provide NMFS with names and addresses of anglers who targeted groundfish in the 12 months prior to the survey.

Survey implementation

The survey instrument will be mailed to groundfish anglers who targeted groundfish in the previous 12 months. The sample will be stratified by management area – reflecting differences in species mix and regulations among areas. The implementation protocol will be based on methods suggested by Dillman et al. (2009), which includes the following mailings: an advance notice letter, the survey questionnaire, a thank you postcard, a replacement survey, and a final thank you postcard.

Justification for individual questions

The following provides information about the contents of the mailing that respondents will receive (cover letter, survey instrument, self-addressed stamped envelope) and a section-by-section description of the survey instrument itself.

Cover letter

The survey instrument will be sent with a cover letter that provides information about the survey, why the data collection is necessary, the survey's agency sponsor and the name, phone number, and e-mail address of someone to contact if they have questions or comments about the data collection.

Introductory page of survey instrument

The first page of the survey introduces the respondent to the survey topic, sponsor, type of information to be collected, the voluntary nature of this data collection, and the OMB Control Number and expiration date. It will also define the scope of the study: recreational groundfish fishing in California waters.

Section A – Your Saltwater Sportfishing Experiences in California Waters

Questions A1-A3 (past fishing experience, boat ownership, days fished in the past year) reflect the respondent's overall fishing avidity. These avidity variables are expected to correlate with the number of groundfish trips made per year, anglers' knowledge of groundfish regulations, their opinions regarding groundfish regulations, and the extent to which groundfish regulations constrain their fishing (i.e., how often they reach bag limits).

Question A4 (range of target species pursued by angler) will help explain respondent attitudes toward groundfish regulations. For instance, anglers may not be as concerned with groundfish regulations if they also target other species.

Section B – Your Groundfish Fishing Experiences in California

CDFW routinely collects data that are used to estimate aggregate groundfish fishing effort (angler days). However, data needed to estimate participation (number of groundfish anglers) is not available. *Question B1* will allow estimation of groundfish participation – i.e., by dividing aggregate groundfish angler days (as estimated by CDFW) by the average number of groundfish days per angler (as derived from *Question B1*).

Question B2 provides information regarding the management area(s) fished by each respondent. Area fished may affect angler attitudes toward groundfish regulations. For instance, anglers who fish in areas with more stringent regulations may be less satisfied than anglers who fish in other areas. Attitudes toward regulations may also be affected by the number of areas fished, as anglers who fish in one area may feel more constrained by area-specific regulations than anglers who fish in multiple areas.

Section C – How California Groundfish Regulations Affect You

Question C1 will help fishery managers evaluate the effectiveness of groundfish regulations. For instance: (a) A longstanding issue for managers is the extent to which bag limits actually constrain angler catch; this question is expected to shed light on that issue; (b) Angler encounters with sublegal-size fish typically increase when a large year class enters the fishery; this question will help determine how often such encounters occur for scorpionfish, greenlings, cabezon and lingcod, and (c) The frequency with which anglers catch overfished species (cowcod, bronzespotted, canary, yelloweye) will be useful for gauging the effectiveness of depth and season regulations in reducing angler encounters with these species.

Question C2 provides insights into angler catch preferences. The premise of the question is that anglers who are less inclined to keep all the legal groundfish they catch have more selective species preferences and/or are less motivated by a desire to catch large numbers of fish.

Question C3 provides insights into how anglers respond to groundfish regulations (i.e., move to another location when encountering prohibited groundfish, release prohibited fish, use a descending device) and angler attitudes toward regulations (i.e., groundfish and lingcod bag limits). Deepwater rockfishes have swim bladders that inflate when they are brought to the surface; if released at the surface, these fish often die because they are too buoyant to descend quickly. Fishery managers are encouraging the use of descending devices, which allow anglers to release rockfishes at sufficient depth that the bladder deflates quickly (due to water pressure), allowing the fish to recover and swim away. *Question C3* allows managers to gauge angler familiarity with and use of descending devices.

Question C4 focuses on rockfish, which comprise a large majority of groundfish catch. This question is helpful for determining the extent to which anglers are concerned about numbers of rockfish caught and specific rockfish characteristics (i.e., size, taste).

To help protect overfished rockfish stocks, CDFW closes the groundfish fishery at those depths and in those months when overfished stocks are most likely to occur on the fishing grounds.

These depth/season closures are customized by management area to reflect the differential distribution of overfished stocks. An unintended consequence of the depth closures has been increased fishing pressure on stocks in the now smaller, open areas. To alleviate some of this pressure, fishery managers may consider expanding the open areas in exchange for shortening the season. *Questions C5a-C5e* are intended to gauge angler receptivity to such changes.

Question 6 will help fishery managers interpret the angler preferences expressed in *Questions C5a-C5e*.

Section D – Your Most Recent Groundfish Trip

Section D asks respondents for detailed information about their most recent groundfish trip. Although it would have been desirable to ask similar details for all groundfish trips, that was deemed too burdensome; moreover, focusing on the most recent trip was expected to minimize recall bias. The questions asked in Section D are intended to improve understanding of how particular characteristics of the trip affect angler satisfaction.

Questions D1-D3 pertain to important trip characteristics (mode, duration, location) that are expected to affect trip costs, catch and overall trip satisfaction. *Question D4* asks anglers about the cost of their most recent trip. This question is asked in itemized form (rather than asking for total trip costs) to facilitate recall and ensure that anglers are considering a common set of cost elements in their response. In addition to being a factor affecting angler satisfaction, trip costs will also be used to estimate the economic impacts of groundfish fishing. *Questions D5-D7* focus on catch aspects of the trip; only anglers who indicate that they can identify the species that they targeted/caught on their most recent trip are asked to do so. *Question D8* brings together all the details elicited in *Questions D1-D7* by asking anglers to weigh trip costs against trip satisfaction. *Question D9* is intended to help pinpoint why anglers did or did not find their most recent trip worthwhile. *Question D9* distinguishes between catch and non-catch aspects of the trip and will help managers determine how much catch contributes to the overall quality of the groundfish fishing experience.

Section E – About You and Your Household

Questions E1-E7 pertain to demographic variables that are hypothesized to affect respondents' interest in fishing, the extent of their groundfish participation, their preferred fishing mode(s), how much they spend, and their attitudes/preferences regarding regulations. Past surveys suggest that saltwater anglers are disproportionately middle-aged, white and male relative to the California population as a whole. Education is expected to affect knowledge of groundfish regulations and attitudes/preferences regarding regulations. Household composition and income are expected to affect frequency of fishing, mode choice, and fishing costs. That is, we would expect to see differences in the types (i.e., choice of fishing mode which is related to cost) and frequency of fishing trips relative to different income levels. The response categories used for *Question E7* were chosen for consistency with previous NMFS recreational fishing surveys. The different gradations between the lower, middle, and upper income categories were retained because lower income households may be more sensitive to smaller changes in income than higher income households.

End of Survey

The last page of the survey thanks respondents for their participation and asks those who are interested in receiving a summary report on the survey to provide a mailing or email address. Anglers are also given an opportunity to provide comments regarding the survey, fishing regulations, and their fishing experiences. These comments may increase awareness of managers regarding issues important to anglers. Providing an opportunity to comment may also encourage anglers to fill out and return the questionnaire. All comments will be transcribed (in anonymous form) and included in the final survey report.

Reporting of survey results and Information Quality guidelines

Results from this data collection will be analyzed using standard QA/QC procedures for survey research. Economists from the NMFS will analyze the data using standard statistical software such as STATA or R, and appropriate statistical procedures. Results from the data collection may be used in scientific, technical, and general information publications. At minimum, a report describing the sampling methods, survey completion rates, and descriptive statistics will be prepared. The report will be posted on the NMFS Web site (<http://www.st.nmfs.noaa.gov/economics/index>). This summary will also be distributed to respondents if requested; the opportunity to request such a summary is provided at the end of the survey. It is anticipated that results may also be reported through peer-reviewed publications and presentations at conferences.

NOAA Fisheries Service will retain control over the information and safeguard it from improper access, modification, and destruction, consistent with NOAA standards for confidentiality, privacy, and electronic information. See Question 10 of this Supporting Statement for more information on confidentiality and privacy. The information collection is to meet all applicable information quality guidelines. Prior to dissemination, the information will be subjected to quality control measures and a pre-dissemination review pursuant to [Section 515 of Public Law 106-554](#).

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological techniques or other forms of information technology.

This proposed data collection is voluntary and mail-based. A self-addressed, stamped envelope will be provided to each respondent so that their completed survey questionnaire can be mailed back to NMFS without the respondent incurring mailing fees. Electronic submission of responses will not be possible. The mail-based mode of data collection was considered to be the best option due to the availability of names and addresses that will be provided by CDFW and PSMFC. Currently, CDFW and PSMFC do not collect e-mail addresses from California anglers. The results of this data collection will be made available to the public in summary form from the NMFS website.

4. Describe efforts to identify duplication.

NMFS economists at the Southwest Fisheries Science Center (SWFSC) and the Northwest Fisheries Science Center (NWFSC), as well as colleagues at CDFW, were contacted and informed of plans to conduct this data collection. It was determined that no other similar survey efforts are being planned for California by either NMFS or CDFW in 2014 or in the foreseeable future.

Previous data collections by NMFS and other Federal and State agencies provide some information related to saltwater fishing activities in California. However, information collected and/or reported from these past efforts differ from the proposed data collection due to its specific focus on anglers who target Pacific groundfish species in waters off of California's coast. None of the previous data collections provide information about groundfish-specific recreational fishing behavior or attitudes/preferences regarding groundfish species or regulations.

The following is an overview of these other data collection activities.

National Marine Recreational Fishing Expenditure Survey (NMRFES)

The National Marine Recreational Fishing Expenditure Survey (NMRFES) is administered by the NMFS, Office of Science & Technology and many state resource agency partners (OMB Control No. 0648-0052, expires 12/31/2014). It is a periodic survey, conducted approximately every five years. Initially implemented in the Northeast Region in 1998 and then the Southeast Region in 1999, the survey was first implemented in the Pacific Region in 2000. It was then implemented nationwide to all coastal states in 2006 and 2011. Similar to preceding surveys, the 2011 NMRFES collected data on marine recreational fishing participation, associated expenditures, and angler demographics. State, regional, and national estimates of fishing activity and economic impacts are derived from these surveys. Results of the 2006 and 2011 surveys are reported in Gentner and Steinback (2008) and CIC Research (2012).

While both the NMRFES surveys and the proposed survey target saltwater anglers, the surveys differ in important respects. The NMRFES covers fishing associated with all target species (not just groundfish), includes detailed questions on all fishing expenditures, and does not include any questions regarding fishing regulations. The proposed survey is targeted at groundfish anglers only, considers expenditures only as they relate to the most recent groundfish trip, and focuses largely on angler behavior and preferences as they relate to groundfish species and regulations.

National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (FHWAR)

The National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (FHWAR) is administered by the U.S. Fish & Wildlife Service and has been conducted since 1955. It is a periodic survey, implemented about every five years, and serves as the basis for state, regional, and national estimates. It is implemented in all 50 states and the most recent survey was conducted in 2011. A national report and state reports are currently available online: <http://www.census.gov/prod/www/fishing.html>. Saltwater recreational fishing is covered in the

survey, in addition to other outdoor activities such as freshwater fishing, hunting, and wildlife-watching.

While both the FHWAR and the proposed survey include saltwater anglers, the surveys differ in important respects. The FHWAR focuses on expenditures associated with a broad range of outdoor recreational activities. Saltwater fishing trips are categorized in FHWAR by type of fish (i.e., salmon, striped bass); however, groundfish is not an explicit category but rather lumped with “another type of saltwater fish”. The proposed survey targets one particular type of recreation (groundfish fishing) and focuses largely on regulations rather than expenditures.

5. If the collection of information involves small businesses or other small entities, describe the methods used to minimize burden.

The proposed data collection does not involve small business or other small entities.

6. Describe the consequences to the Federal program or policy activities if the collection is not conducted or is conducted less frequently. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.

As stated in Part A, Question 1, this proposed collection will improve NMFS’ understanding of recreational fishing behavior and preferences, and address some of the recreational fishing priorities highlighted in NOAA’s Next Generation Strategic Plan (2010). Specific information from this collection will help to answer questions about changes to California groundfish angler behavior, including species targeting strategies, in response to possible changes to regulations (i.e., depth closures and season length). This information is also of interest to CDFW, our state agency partner in this region. If this data collection was not conducted, the current gap in our collective knowledge of groundfish angler behavior and preferences would continue to be unfilled.

7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.

The data collection will be conducted in a manner consistent with OMB Guidelines.

8. Provide information on the PRA Federal Register Notice that solicited public comments on the information collection prior to this submission. Summarize the public comments received in response to that notice and describe the actions taken by the agency in response to those comments. Describe the efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

A Federal Register Notice published on June 26, 2013 (78 FR 38297) solicited public comment. No comments were received.

Feedback was solicited from a number of Federal, State, and academic colleagues regarding management issues that should be addressed in the survey, as well as wording and formatting of the survey instructions and questions. The Federal and State agency collaborators, in particular, are very involved in groundfish management and familiar with questions that come up on a recurring basis regarding the effects of current and potential regulations on angler behavior and satisfaction. More information regarding efforts to consult with persons outside of NMFS is included in Part B, Question 3 of this Supporting Statement.

9. Explain any decisions to provide payments or gifts to respondents, other than remuneration of contractors or grantees.

No payments or gifts associated with this data collection will be made by NMFS to respondents.

10. Describe any assurance of confidentiality provided to respondents and the basis for assurance in statute, regulation, or agency policy.

Once this data collection is completed, NMFS researchers will adhere to the following policy related to data confidentiality: “The data that is collected will remain confidential as required by Section 402(b) of the Magnuson-Stevens Fishery Conservation and Management Act as amended in 2006 (16 U.S. C. 1801, et seq.) and [NOAA Administrative Order 216-100](#), Confidentiality of Fisheries Statistics. The data that is collected will not be released to the public except as aggregate, summary statistics.” Information in the survey cover letter states: “Your responses are voluntary and will be kept confidential. That is, your responses will never be publicly associated with your name or mailing address.”

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.

With the exception of Question E7 regarding income in the survey questionnaire, this data collection does not contain questions of a sensitive nature. Please see Question A2 above for a discussion of Question E7.

12. Provide an estimate in hours of the burden of the collection of information.

For this proposed one-time data collection, 4,285 potential respondents across California will be contacted. They will be asked to complete one survey questionnaire per respondent. A response rate of 35% is expected, resulting in 1,500 completed responses statewide (annualized to 500). A 35% response rate was considered a reasonable estimate based on previous NMFS recreational fishing surveys that achieved response rates in California of 36% (Gentner and Steinback 2006) and 35% (CIC Research, 2012). These previous data collection efforts sampled California recreational anglers who will likely be very similar or identical to the anglers who will be contacted for the proposed collection.

Each survey questionnaire is expected to take 25 minutes to complete, resulting in 625 burden hours. This time estimate was derived from experiences gained during focus groups that were

conducted for developing the survey instrument. More information about these focus groups can be found in a supplementary document summarizing this activity. When annualized over three years, this data collection will result in approximately 208 burden hours per year. Applying an hourly mean wage rate of \$25.17 per hour for California (Bureau of Labor Statistics 2012), these annualized burden hours result in a labor cost of \$5,261 per year (Table A-1).

	Table A-1. Total burden hours annualized over three years					
	Number of expected responses*	Responses annualized	Minutes per response	Burden hours	Burden hours annualized	Labor cost annualized**
Respondents who have participated in groundfish fishing during 2013	1,500	500	25	625	208	\$5,261

*Based on an estimated 35% response rate.

**Based on an hourly mean wage rate of \$25.17 per hour for “All Occupations” in California (BLS 2012).

13. Provide an estimate of the total annual recordkeeping/reporting cost burden to the respondents resulting from the collection (excluding the value of the burden hours in Question 12 above).

No additional cost burden will be imposed on respondents aside from the labor cost.

14. Provide estimates of annualized cost to the Federal government.

Total annual cost to the Federal government is approximately \$50,000, annualized over a three year period. The estimate is based on the current funding available for this data collection, which is approximately \$150,000. The estimate includes the cost of: (a) assisting with survey design and formatting; (b) printing and mailing survey questionnaires and associated reminder and thank you postcards; (c) monitoring survey progress (mailouts and returns); (d) data entry and quality assurance and quality control (QA/QC) procedures to ensure accuracy of data entry; (e) preparation of datasets and metadata, and (f) a contractor report describing survey procedures, response rates, and summary statistics.

15. Explain the reasons for any program changes or adjustments.

This is a new program.

16. For collections whose results will be published, outline the plans for tabulation and publication.

This report, and any other report or publication resulting from this data collection, will be subject to internal agency review. Outside peer review will be sought as necessary (i.e., for peer-reviewed publications). Data will be made available to the general public on request in summary form only. Any agency reports resulting from this data collection will be made available to the public from the NMFS website.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons why display would be inappropriate.

Not Applicable.

18. Explain each exception to the certification statement.

Not Applicable.