

REPORT ON FOCUS GROUPS FOR CENTRAL VALLEY ANGLER SURVEY

Qualitative testing objective: To evaluate the content, clarity, and flow of draft versions of the survey instrument.

Members of the general public were recruited to voluntarily participate in focus groups in Sacramento, California. These participants were recruited from a list of individuals who purchased a recreational fishing license in Sacramento County in the past 12 months. This list is compiled by the California Department of Fish and Wildlife (CDFW) and was provided to the National Marine Fisheries Service (NMFS) for the purposes of this project only. The qualitative testing period for this data collection was from late July through early August 2014.

Qualitative testing provided NMFS researchers with the following information:

- how information in the survey (including the map) was understood and perceived
- whether Central Valley anglers fished in one or multiple types of water bodies (rivers/creeks, lakes reservoirs, Delta)
- how confidently participants could recall number of trips and days fished in the past 12 months
- confirm whether the list of freshwater target species was complete and relevant to Central Valley anglers
- considered landscape/water characteristics and recreational amenities that affect angler's choice of fishing location
- how confidently participants could recall fishing trip expenditures in the last 12 months as well as expenditures from their most recent fishing trip
- how well the cost categories in the expenditure tables reflect their fishing expenses
- possible improvements to other elements of the survey instrument noted during focus group discussions.

The information collected from these focus groups helped to shape iterations of the survey instrument over the course of the qualitative testing period. Specific objectives and lessons learned from each focus group are summarized and detailed below. Moderator guides, original notes, and audio recordings from these groups are available upon request.

Focus group overview

Focus group participants were recruited from the Sacramento area by a research firm contracted by NMFS. Focus group participants were predominantly male, reflecting the fact that the majority of anglers are male. Participants tended to be skewed toward more avid anglers. Most participants were highly engaged in the discussion and offered many helpful suggestions.

Focus groups were selected as follows:

- Twelve individuals were recruited for each focus group to help ensure that at least nine participants showed up for each group.
- Sacramento area residents were recruited using random recruitment methods. The specific method was left to the discretion of the contractor in charge of recruitment.
- A recruitment screener was provided to the contractor by NMFS researchers. Participation in recreational fishing in California's Central Valley in the last 24 months was the initial critical screening criterion. Other characteristics such as location of fishing (river/creek, lake/reservoir) and whether they targeted salmon in the Central Valley were also used to screen participants. These characteristics were noted to ensure that each group consisted of participants with a range of fishing experiences in the Central Valley. Focus group screeners for each set of groups are available upon request.

Focus groups were conducted as follows:

- No more than nine participants per focus group
- One moderator (NMFS researcher) per group
- One observer (NMFS researcher) per group
- Two focus groups were conducted on each of two nights.
- Each focus group met for 90-120 minutes.
- All groups were audio recorded with the consent of participants.
- Draft survey instruments and moderator guides are available upon request.

Focus groups - 29 Jul 2014

What we did

There were nine participants in the first group (one female) and seven participants in the second group (all male). Issues and concerns that emerged during the first group helped to shape the focus and discussions in the second group.

For each focus group, the survey instrument was broken up into four handouts: one map and Sections A through C.

The map and Section A introduced the geographic scope of the survey and the types of fishing locations we were interested in (rivers, lakes/reservoirs). Questions in this section related to fishing effort in the last 12 months at specific rivers and lakes/reservoirs, as well as target species.

Section B focused on the most recent fishing trip in the Central Valley. Questions asked included the specific river or lake/reservoir where the trip occurred, target species, fishing mode (riverbank, private boat, rental boat, hired guide), activities enjoyed other than fishing (if applicable), and why they chose that particular fishing location. Expenditure information for their most recent trip was also collected for either a day or overnight trip (whichever one was their most recent) and how many people were covered by each expense. These questions, their format, and the response categories were all evaluated.

Section C focused on other fish- or water-related activities anglers might have engaged in over the last three years. Also, a hypothetical question was posed regarding salmon habitat restoration and whether anglers would be interested in fishing at a newly restored location if salmon became available. Other questions were asked about their general fishing activities during the last 12 months (freshwater outside the Central Valley, saltwater inside and outside of California). Lastly, they were asked to fill out an expenditure table which listed expenses related to freshwater fishing in general that were incurred in the last 12 months.

What we learned

The first handout included a map of the Central Valley and Section A of the survey instrument. It took participants approximately 6-8 minutes to fill out this section. Some participants noted that it was not clear from the map which areas were inside or outside the Central Valley. Some questioned whether the Central Valley went as far north and south as depicted on the map. Others mentioned that CDFW published maps that designated different fishing regulations for different areas. The map did not define the San Francisco/San Joaquin Delta nor did this version of the survey inquire about Delta fishing. Participants in both groups asked whether and how their Delta fishing fit into the survey.

Suggested changes to Section A included the following: Provide more write-in space for the “Other” option for Questions A2 and A4. Note in the instructions that the rivers/reservoirs/lakes listed do not represent a complete list of possible fishing locations. Since anglers indicated that estimating the number of days fished in 12 months was not easy; it would be easier if a range of options (1-5 days, 6-10 days, etc.) was provided for them to simply check. For Question A3, some anglers suggested adding catfish, carp, rainbow trout, brown trout, and kokanee to the target species list. They also suggested adding ‘striper’, which is another name for a striped bass.

Section B collected information about the angler’s most recent fishing trip in the Central Valley. It took participants approximately 8-9 minutes to fill out this section. It was noted in both groups that emphasizing the skip patterns a bit more would be helpful for some participants. That is, some participants filled out sections even though they did not have to, had they noticed the skip pattern instructions. Also, it was noted that “recent trip” should be emphasized in all questions because some participants did not notice that this was the focus of all questions in this section. One participant suggested adding language such as “exclude all other trips even if they were in the Central Valley” to further emphasize the “recent trip” focus of these questions.

Other comments and suggestions included the following: For Question B1, again the question of where the Delta sloughs fit into the survey was asked. One participant in the first group also asked how she should answer this question because she fished in both a river and a lake/reservoir on the same fishing day/trip. For Question B3 (similar to Question A3), it was suggested that we add the following target species: catfish, carp, rainbow and brown trout, and kokanee. For Question B7, there were suggestions to add “BBQ-ing” to the “Picknicking” category, add camping and hunting as categories, and add “wakeboarding” or an “etc.” to the “Water skiing or jet skiing...” category. A few anglers mentioned that fishing reports influence their choice of fishing location, the focus of Question B8; this might be added as an additional choice. One angler mentioned that he might sleep in a “hunting blind” when on a fishing trip. Other participants mentioned that they might sleep in their truck, camper, or car but not in a formal RV park or parking lot; they might simply pull over on the side of the road. Regarding travel cost,

the following suggestions were made: specify "fuel for car" versus boat fuel; add "other activities" such as whale watching; add clothing, toiletries, camping supplies, and dog/petsitter cost categories; and add entry fees (to drive into a reservoir/lake), day use fees, and fees per fish (apparently relevant at some fishing locations).

It took participants approximately 12-16 minutes to fill out Section C. After filling out this section, one angler suggested adding a question about how the cost of gas affected the frequency of fishing trips. He noted that the cost of fuel limited his fishing activities.

Participants suggested the following changes to Section C. For Question C1, the following categories were suggested: add "nonprofit organization" (e.g., Project Kokanee); add "fishing tournaments for pros" (vs. fishing derby for amateurs); add "e.g., Fishing in the City program" to the "Volunteered for kids' fishing event" category; and add reservoir cleanup to "Volunteered for Central Valley river cleanup" category. For Question C2, some participants were skeptical as to whether salmon habitat could be improved so they were not sure how to answer this question. We may want to consider removing the reference to salmon habitat restoration. However, since a major purpose of the survey is to elicit feedback on habitat qualities and/or site amenities that are appealing to anglers, re-wording this question may be more appropriate. Participants mentioned the following amenities as ones they look for in a new or existing fishing location: increased accessibility (boat launch/ramp, parking, handicap accessibility, etc.), food availability, bait/tackle availability, bathroom, fuel, and campground. Safety was a concern for some; two individuals mentioned that their car or truck had been broken into at some fishing locations. Other participants mentioned that existing regulations at some locations might discourage fishing regardless of whether or not amenities at those locations improved. Another important factor to anglers was whether the location was known to have high catch rates. If this was known, anglers indicated that they and others would go to those locations.

Some participants were not sure how to answer Question C2. One suggestion was to change the order of the choices, to have the positive one first (i.e., "I may be interested...") and the negative one second (i.e., "I may not be interested..."). Having several suboptions under each of these positive and negative responses was also confusing; some individuals (incorrectly) answered the options listed under both. For Question C4, some anglers suggested using a range of fishing days (e.g., 1-5, 6-10) rather than asking for a specific estimate. This was consistent with previous comments in the other sections. One person also suggested reordering these categories by geography (i.e., inside or outside the Central Valley) rather than by type of water (i.e., freshwater vs. saltwater). Defining what was meant by "saltwater" was also discussed. For Question C5, a change in wording was suggested: "How many years have you been fishing...?" rather than the current "How many years of freshwater fishing experience...?" The phrase, "fishing experience" threw off some people. They thought it referred to more formal fishing experience (e.g., licensed or when they were good at it) rather than all their experiences, including fishing as a kid.

Participants in both groups struggled a little bit with the expenditure table in Question C7. One suggestion was to focus only on expenditures inside the Central Valley rather than both inside/outside the Central Valley. Some people asked how this table and its categories differed from the recent trip expenditure table in the previous section. We may also want to consider separating expenditures for day trips versus overnight trips (e.g., different tables for each). Some participants suggested adding the following categories to this table: annual boat passes and DMV registration (includes inspection sticker). Confidence in the expenditure estimates they indicated

for this table were mixed so we might consider adding a question following C7 that gauges the participant's confidence in their estimates (e.g., very confident, confident, somewhat confident, not confident at all).

Lastly, when asked whether these participants would fill out a survey such as this one if it was mailed to them, some responded positively while others did not. Some suggested that the cover letter accompanying the survey was important. As long as it clearly introduced the agency sponsor, that agency's mission/purpose, why they were receiving the survey, why it was being conducted, and how the results might be interpreted or used, many participants indicated that they would take the time to fill it out.

Focus groups, 5 Aug 2014

What we did

Our second set of focus groups provided an opportunity to test the changes to the questionnaire that we made since our first groups. For each focus group, the questionnaire was broken up into six handouts: two maps and Sections A through D. Each group included nine participants. There were three females in the first group and two females in the second group. Handouts were not updated between groups; however, the second group was focused on clarifying any issues that came out of the first group.

Two maps were presented to our focus group participants. The first map more clearly defined the Central Valley for the purposes of this survey. The second map included a boundary for the Delta area within the Central Valley. Section A was similar to what was presented in the previous focus groups except for the following changes: questions were added regarding the extent of fishing in Delta waterways (as well as rivers and lakes/reservoirs). The previous version of these questions asked anglers to write in the number of days fished; categorical options (1-2 days, 3-6 days, etc.) were tested for these groups based on feedback from the previous week's focus groups.

Similar to the first draft of this survey, Section B asked for location, target species, expenditures, and other information about an angler's most recent fishing trip in the Central Valley. "Delta waterways" was added to rivers/creeks and lakes/reservoirs as a potential fishing location. The list of rivers/creeks and lakes/reservoirs, the list of possible target species, and the trip expenditure table were all modified based on feedback received the week before.

Section C was shortened relative to the version tested in our previous groups. This version consisted of three questions: how many years anglers have been fishing in the Central Valley; the number of fishing trips taken in the past 12 months at various locations and as day or overnight trips; and a table of their fishing-related expenses over the last 12 months.

Section D was new for these focus groups but contained questions previously included in the version of Section C tested the previous week. This section included four questions. The first question pertained to activities other than fishing that engaged anglers in the Central Valley area. The second question pertained to the angler's potential interest in fishing at a location that was hypothetically restored or enhanced; the wording and format of this question was revised based on previous feedback. The last two questions asked anglers about their fishing experiences outside the Central Valley. Rather than ask about the number of days fished in these areas

outside the Central Valley (a task that our previous focus group participants found difficult), this question asked whether they did or did not engage in fishing in those areas.

What we learned

The first handouts were a map of the Central Valley and Section A. The purpose of the map was to graphically define the Central Valley area for the purpose of this survey. Specifically, it was to help orient anglers to the geographic area introduced in Section A. Generally, we received mixed reviews about this map. There were still questions about exactly where the Central Valley boundaries were (e.g., relative to highways or bridges), how they related to established CDFW fishing regulations which are defined by area, and where the Delta area was. The second map was then passed out to the group. This map attempted to define the boundaries of the Delta. Some participants suggested that the boundaries be defined relative to known landmarks. Suggested landmarks included Montezuma Slough, Hawk Bay, West Bank, Decker Island, Mothball Fleet, and “the water tower”. One angler asked at what point did the Sacramento and Stanislaus Rivers become the Delta; he was not sure whether his fishing location was considered a “river” or a “Delta waterway”. Several anglers asked where the Sierra District was relative to the map and how it fit into our definition of the Central Valley. Additional water bodies that participants suggested for inclusion in the map included the Cosumnes River, Collins Lake, and Lake Berryessa.

It took participants approximately 6-10 minutes to fill out Section A. Participants indicated that the categorical responses included for Questions A2, A4, and A6 helped to make these questions easy to answer. This is an improvement over our first focus groups. Some participants in both groups suggested that a “0” or “none” response category be added to these questions. This would help those who did not fish in a particular river/creek, lake/reservoir, or Delta waterway and were unsure what to do next. Other participants, however, disagreed and indicated that it would be too much work to mark “0” next to all the water bodies where they did not fish. Some additional lakes/reservoirs mentioned by participants included Lake Swan, Tulak, Collins, Pardee (close to Comanche), Amador, Silver Lake, and Rollins Lake.

For Question A5, some participants were unclear as to what area the “Delta waterways” encompassed. Similar to the comments about the maps, a more detailed definition of this area may be helpful.

For Question A7, some participants did not realize they should go across each row and check all that applied. We may consider adding instructions such as, “Check all that apply in each row.” It was also suggested that a row for “Whatever I could catch” or “I don't know” be added for those anglers who did not care what they caught or were not able to identify a particular fish to species (e.g., a specific type of bass or trout). We may want to consider adding the categories, “Bass, don't know what kind” or “Trout, don't know what kind” to aid these anglers. Regarding targeted species, both groups mentioned pike as an additional species that might be caught. However, in the first group, it was also mentioned that targeting them was illegal. Crawdads were another species some said they might target, at least for bait. It was also suggested that the word, “striper”, be added to the “Striped bass” row. One participant suggested it would be easier to find target species if the list was re-worded: for example, “Largemouth bass” instead of “Bass, largemouth” as it is currently listed. Also, the first group suggested removing “Walleye” from the

target species list but the second group did not mention this as a problem. These suggestions would also apply to Question B5 in the next section.

It took participants approximately 8-11 minutes to fill out Section B. Similar to our previous groups, it was suggested that the skip pattern instructions (in italics) be emphasized even more than they are currently, perhaps in bold. Some participants also suggested that throughout this section, emphasis in bold for the phrase "most recent" would help to focus them on just the most recent trip. For Question B1, bold type could be used to clarify the wording in several ways: "Thinking about your **most recent** fishing trip in the Central Valley, where did you do **most** of your fishing?" The first bold phrase would emphasize that we want them thinking about their single, most recent fishing trip and the second bold phrase would emphasize that we wanted information about the location where they did most of their fishing (for cases where they fished in two or more locations on the same trip).

One angler in the second focus group was not sure how to answer Question B4 because he was unsure where in the Delta he was fishing. We may want to consider adding instructions such as, "If you're not sure where you were fishing in the Delta, please name the closest landmark or town."

Relative to Question B7, there was some discussion in both groups about amenities that they would like to see at sites where they currently fish (e.g., trash cans, new structures in the water that create habitat for fish) or would like to fish (e.g., security cameras related to safety concerns, increased shore access). Some mentioned that they do not fish at certain locations due to their reputation for not being safe (e.g., Garden Highway, Hogback) or the cost of fishing at that location (e.g., day use fee, fee per fish). We might consider adding an open ended question that asks anglers to provide more detail, such as: "Are there any improvements you would recommend for existing sites where you currently fish or would like to fish?"

Other suggestions for Question B7 included: adding "such as a campground" to the "Overnight accommodations" category; add a category for "Fish planting and stocking information" or "Local fish reports (radio, internet, etc.)", or merge these with the "Species availability" category; add a "Water quality" category or something similar which would broadly include water clarity ("muddy water" was mentioned) as well as lack of debris that might harm a boat (boating safety); explicitly mention boat, shore, and car/parking access in the "Easy access to water" category; and consider adding a category that indicates that the location chosen was where the angler's boat was moored. This last suggestion was made by a participant who chose his fishing location because his boat was moored there (he did include this explanation in the "Other" row). Lastly, the category, "Good place to get away from other anglers" might be too narrowly focused on only anglers when in fact, participants might be trying to get away from people or crowds in general. This was a point that was made clear by one participant when comparing his responses in Question B7 relative to Question D2.

For Question B9, there was a suggestion to change the wording to "single day trip" and "multi-day/overnight trip" rather than "day" or "overnight" trip. Some participants in both focus groups were not sure how to differentiate between these phrases. For example, one participant spent three consecutive days fishing but returned home at the end of each day to sleep. She categorized this as an "overnight" trip when we would categorize this as three separate day trips. If the

wording of these categories are changed, this would also apply to Question C2. Similarly, we may want to emphasize in bold font the word "away" in Question B10.

Regarding "Entry/day use fees" in Question B17, the second group in particular mentioned that often "fees" include camping, boat launch, parking, and other day or multi-day use fees. Currently, these fees are separated in this table and some participants were not sure how to break up the one, bundled fee they paid. One angler also suggested adding "fishing license" to this table for cases where a license is purchased just for that day/trip. Other suggestions included removing "launch fees" from the "Private boat" row, and separating "parking fees" from the "Gas for vehicle..." row. It was also pointed out that for the "Total Estimated Trip Cost..." row, the "Number of people" column should be blacked out to emphasize that this cell need not be filled out.

Section C took our participants approximately 8 minutes to complete. Participants in both groups had suggested changes and improvements for the three questions in this section. For Question C1, we may want to consider adding a phrase such as, "Please include years spent fishing in the Central Valley as a child" because some participants did not include those years when responding to this question. Though participants appreciated the response categories provided in Question C2, participants varied in how they distinguished "day" and "overnight" trips. It was suggested that this wording be changed to "single" and "multi-day" trips, to clarify the difference. We may want to consider splitting this question into two: one for single day trips and a second for multi-day/overnight trips. It was also suggested that a "0" or "None" response column be added for those who did not take any fishing trips at a particular water body type.

Participants in the second group were asked about differentiating these existing trip type categories into boat versus shore modes. As currently worded and formatted, participants felt that adding fishing modes would be too confusing. However, if the question was split into two questions (for example), differentiating between fishing modes might work.

Question C3 was an expenditure table that asked anglers to estimate how much they spent on various categories of items. Some participants asked why gas (car or boat fuel), guide fees, and other items included in the previous expenditure table (Question B17) were not included here. Explicitly differentiating this table from the previous one would likely reduce these types of questions. When asked which expense categories in this table, if any, were difficult to estimate, some participants mentioned that the "Fishing equipment" category was harder because these items were purchased frequently. Participants found the "Boat-related" and "Truck, camper..." expenses to be easier to estimate because these payments were made less frequently. When asked whether they included car payments in this table, some participants in the second group indicated they included these payments. When asked whether that vehicle was used primarily for fishing, they indicated that it was their only vehicle so it was used for everything. We ask this question about frequency of use because we want to be able to attribute these vehicle payments either for fishing activities (if used primarily for this) or exclude them. Differentiating between these is an ongoing challenge for this and other recreational fishing expenditure surveys. We may consider adding response categories for gaining information on the proportion of time an item is used for fishing, e.g., "0-50%" or "51-100%".

Our last section, Section D, took participants in both groups approximately 5 minutes to complete. The first question, D1, was fairly straightforward for participants. It was suggested

that “fishing seminars (e.g., Fisherman's Warehouse)” might be an additional option not currently listed. Several anglers noted that they would like to participate in organizations/activities that inform them about water issues (e.g., why water is allocated the way it is) or new water projects (e.g., changes made to a dam but hearing about this after the project was completed). However these topics go beyond the scope of this survey.

Both groups still had difficulty with Question D2, partly due to the format of the response categories, despite changes we made since the first set of focus groups. That is, some anglers thought that they were to respond to all primary and secondary choices listed in the question, rather than choose one primary response (yes, no, I don’t know) and then consider the associated secondary choices. Further improvements to the formatting of this question are still needed.

For Question D4, we may want to consider adding a “None of these” option. Otherwise, we could simply assume that if this question was left blank, no fishing outside of the Central Valley occurred within the last 12 months.