

# Idaho Fish Consumption Survey Design

## *Response to Comments*

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DRAFT

## Comments from Arcadis:

#	Comment:	Response:
1	General comment 1: The numbering of questions and the skip patterns need to be carefully evaluated in the final survey instrument. The current draft of the instrument has several redundant question numbers and also some incorrect skips. If this structure is not carefully checked, it can have a substantial effect on data collection.	Thank you for spotting this. It has been corrected.
2	General Comment 2: It appears, based on the background document prepared by BSU, that nearly identical instruments will be used to capture the fish consumption rates of the general population and recreational anglers. While recreational anglers are discussed in the background document, it is not clear if they will be addressed in a separate survey effort, or as part of the effort for the general population. In addition, neither sample size nor specifically how the sample will be collected for recreational anglers is discussed. This information needs to be presented for review.	It is the intention of DEQ to use nearly identical survey instruments to survey the two populations. Depending upon advice from the implementation contractor, there may be some differences in questions, but the goal is to obtain the same information from the two populations. Recreational anglers will be identified in the general population survey but a separate sampling effort will identify them and a separate survey effort will gather information from that separate sampling pool.
3	General Comment 3: Throughout the draft instrument, there are extra boxes in many places that are not needed for the interviewer or for individuals who participate via the internet. It is likely that the extra boxes may lead the interviewer or participant to believe that there is additional information that needs to be filled in. We recommend that all unnecessary boxes be removed to avoid confusion and inconsistent data entry.	During the pilot testing with the implementation team, these discrepancies and idiosyncrasies will be worked out.

<p>4</p>	<p>General Comment 4. The numbering of questions is unnecessarily confusing. Most question numbers are followed by an “A” but there is no “B”. In some places, scripts are numbered when they don’t need to be. Finally, skips often refer to a number that is not actually there. For example, a “no” response to Question 4 skips to Question 9 but there is no Question 9. Instead, there are two areas designated as 9A and one designated as 9B. To keep things simpler and avoid confusion and mistakes in skip patterns, we recommend that all questions be numbered sequentially without an “A” or “B”, except where it is specifically needed, and that scripts not be numbered</p>	<p>The final version of the questionnaire has cleared up many of these issues. No question is numbered with an alpha character unless it is a multi-part question.</p>
<p>5</p>	<p>Introductory Section and Interviewer Summary Notes. This first section is rather confusing and may not be adequate. It appears that an attempt will be made to interview the same individual four times (i.e., there are boxes to be checked indicating first survey, second survey, third survey, fourth survey). In addition, it appears that there will be four attempts made during each survey effort (Try 1, Try 2, Try 3, Try 4) and that the date and time of day of each attempt will be recorded. However, there is only one place to record whether the interview was completed, whether there was no answer, or what “Other” is meant to signify. Assuming that a separate form will be used for each of the four survey attempts, we recommend that the reason that each “Try” failed be recorded as well as the interview date and time. We assume that the interviewer will know in advance how many times the individual has been surveyed previously and will check that box before beginning the interview. This could be set up as follows: Try 1 Date ___/___/___ am ___pm ___ Complete ___ No answer ___ Refused ___ Other ___ Try 2 Date ___/___/___ am ___pm ___ Complete ___ No answer ___ Refused ___ Other ___ Try 3, etc.</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the draft questionnaire.</p>

<p>6</p>	<p>Question 1A. This question description states “If female answers and a male is needed...”. This implies that the interviewer is going to make a determination as to whether he/she wants to interview a male or female. It is not clear how this need will be determined and, depending upon the goals for the survey, this may or may not be appropriate.</p>	<p>It was recommended that we work on a quota basis to establish roughly equal number of men and women being surveyed. For this reason we incorporated a question that asked for gender and allowed the interviewer to modify based on quota needs.</p>
<p>7</p>	<p>It appears, based on the background document, BSU is recommending that the same survey instrument be used for the general population and the recreational angler surveys. It is not clear whether this is a single survey effort (intended to capture the habits of a sufficient number of recreational anglers within this single effort) or whether these are two separate survey efforts. However, if Idaho is like most states, the number of fishing license-holders is likely to be strongly biased toward males. In many states, as many as 85% to 90% of anglers surveyed are males, with a much smaller fraction (10% to 15%) of female anglers. Thus, if the goal is to capture an adequate and representative sample of recreational anglers, the arbitrary selection of male or female participants, based on the composition of the general population, is not likely to yield a representative sample of the recreational angler population.</p> <p>IDEQ may want to consider separating these two efforts, if this is not already planned. One effort could be directed to licensed Idaho anglers selected at random from license records. This random selection would be more representative of the gender composition of license holders. The second effort could be a gender-balanced general population survey that will likely capture some license holders but will not be constrained by the need to obtain a representative sample of recreational anglers.</p>	<p>Thank you for the comment. We will consider this as we work with the implementation contractor in drawing and implementing the sample for the recreational angler survey.</p>

8	<p>Question 1B. This question asks whether the participant would be willing to provide information about his or her fish consumption and provides options of “Yes”, “No”, “Other” and “No adult home”. It is not clear what would be indicated under “Other” and what the interviewer does if this is the appropriate response. It is also not clear what the interviewer is to do if the correct answer is “No Adult Home”. Wouldn’t the call already have been terminated as a result of 1A if no adult was home?</p>	<p>The final version of the draft questionnaire has been changed to address this comment.</p>
9	<p>Question 2A. It is not clear what “Other” is intended to indicate as a possible response to question 2A or why the call would be terminated. Either the respondent will indicate that he or she has or has not eaten fish in the last year and then the interviewer skips as indicated. If the respondent provides an ambiguous answer to the question, then the interviewer needs to have a script to help guide them to a “yes” or “no” answer. In addition it will be important to collect demographic information from all participants so the call should not be terminated at this point.</p>	<p>The final version of the draft questionnaire has been changed to address this comment.</p>
10	<p>Description prior to Question 2B. We recommend that “(including fast food)” be added as a parenthetical after “tuna or other fish sandwiches” in the description. We also recommend that fish sauce used in cooking be added to the list.</p>	<p>The final version of the draft questionnaire has been changed to address this comment.</p>
11	<p>Question 2B. There is no need to go through the list of specific types of fish that might have been consumed, as the collection of this information will take time but will not contribute to the fish consumption rate derivation. Instead, in order to save time and streamline the interview and data entry, we recommend that the description prior to Question 2B be read and the interviewer can simply ask whether the survey participant has had any of these things in the past year, with a simple “yes” or “no” response.</p>	<p>The final version of the draft questionnaire has been changed to address this comment.</p>

<p>12</p>	<p>Question 2B. If the respondent indicates that he or she has not eaten any of these items, the survey instrument directs the interviewer to Question 17. We recommend, however, that the skip go to Question 13 in order to determine why the respondent hasn't eaten fish in the past year and then move forward to collect all demographic information about the individual.</p>	<p>The final version of the draft questionnaire has been changed to address this comment.</p>
<p>13</p>	<p>Question 3. This question asks how often the individual eats fish or seafood on average. We recommend that it be made clear what is included in the fish or seafood category, including fresh, frozen or prepared, freshwater and marine shellfish, such as clams, crustaceans, such as shrimp or crayfish, as well as fin fish. Also, depending on the individual, this "on average" rate may vary by season. Because it is possible that the interviewer will have only one opportunity to interview this person, as they may not be selected for, or may refuse to participate in, a second interview, we recommend that the following questions be added after this question:          Does this frequency of fish meals change at different times of the year? __yes __no          (If yes) What time of year do you eat the most fish? __spring __summer __fall __winter          What is your average frequency during this time? ___ times per ____          What is the time of year that you eat the least fish? __spring __summer __fall __winter          What is your average frequency during this time? ___ times per ____</p>	<p>We will incorporate this comment into the questionnaire. The survey design is incorporating food frequency questions into the survey instrument which will address the first part of this comment, chiefly asking how often on average the participant eats fish and the average portion size. We will consider the additional questions regarding seasonality as best we can while remaining within the constraints of survey time and budget.</p>
<p>14</p>	<p>Question 3. If the respondent indicates only "yes or no or indefinite" as indicated at the bottom, the interviewer needs to have a script to get a more definitive answer from the respondent.</p>	<p>The final version of the draft questionnaire has been changed to address this comment.</p>

15	<p>Question 4A. If the respondent has not eaten fish or seafood in the last 24-hours, the question indicates that the interviewer should skip to Question 9. There is no Question 9. 9A addresses portion size, which is not an appropriate question for someone that has not consumed fish. The next question is also indicated as 9A and it asks about the remainder of the 7-day recall period. Therefore, individuals responding "No" to Question 4A should be directed to the second 9A. As previously noted, the entire survey instrument needs to be reviewed carefully with respect to numbering and all skips should be scrutinized carefully.</p>	<p>The final version of the draft questionnaire has been changed to address this comment.</p>
16	<p>Questions 5A and 5B. We recommend that the questions be revised slightly to include snacks so that minor consumption events are not overlooked. Question 5A can be revised to say "...did you have fish or seafood for more than one meal or snack?" Question 5B can be revised in a similar way.</p>	<p>The final version of the draft questionnaire has been changed to address this comment.</p>
17	<p>Questions 6A, 7A, 8A and 9A. Rather than having 3 separate questions that collect different information about the same meals, we recommend that these questions be combined into a single question and organized by meal. It is difficult for survey participants to jump back and forth between meals and remember details about them. Thus, we recommend that all information about a single meal or snack be collected before moving on to the next meal or snack. This can easily be done using a matrix like the one below, which captures all aspects of a specific fish meal before moving onto the next. An appropriate script will need to be developed to walk the interviewer and participant through each step of the matrix.</p>	<p>The final version of the draft questionnaire has been changed to address this comment.</p>

<p><b>18</b></p>	<p>Question 6A. We recommend that “acquire” be changed to “get” per EPA comments to simplify the language. Also, the third section of existing Question 6A concerning fish that are not caught in Idaho waters is likely to lead to confusion. Individuals may not know whether gift fish come from Idaho or not. At the same time, not all fish purchased in a market or at a restaurant are obtained from waters outside of Idaho. It appears, based on information provided by BSU, that all trout and crayfish consumed will be assumed to be from Idaho waters. Other fish species may or may not be from Idaho waters. It is likely that only the source of sport-caught fish may be reliably identified and that will be captured in the information included in the above recommended matrix.</p>	<p>The final version of the draft questionnaire has been changed to address this comment.</p>
<p><b>19</b></p>	<p>Question 7A. This question indicates that the interviewer should refer to the coding table. However, as indicated previously, a coding table and grouping of species is not necessary. To do so results in lost detail about specific species consumed. The species reported by the respondent can be recorded directly as indicated and will preserve information about individual species, which may be useful later. Grouping of species, if necessary, can be done during the analysis phase.</p> <p>In addition, if the purpose of grouping species is to help identify the types and sizes of portions consumed, this can be addressed differently as discussed in the discussion about Question 9A below.</p>	<p>The final version of the draft questionnaire has been changed to address this comment.</p>

20	<p>Question 8A. We recommend that the specific cooking method used be identified individually, as indicated in the matrix provided above, rather than grouped. For some chemical constituents, cooking may alter the chemical concentration in the fish. Thus, it is important to preserve this information so that it may be used to develop a cooking loss factor for selected chemical constituents, if desired by IDEQ, when developing WQC. Similarly, information about the parts fish eaten has been removed. We recommend that this information be collected. Different chemicals accumulate in different portions of the fish, with some evenly distributed throughout the fish and others concentrated in the fatty tissues and viscera. Thus, when developing chemical-specific WQC, it may be important for IDEQ to understand what parts of the fish are being consumed enabling the Department to make appropriate decisions about allowable concentrations. This information can be collected as indicated in the matrix above.</p>	<p>The final version of the draft questionnaire has been changed to address this comment.</p>
21	<p>Question 8A. We also recommend that stew and soup be added as a potential category for preparation.</p>	<p>The final version of the draft questionnaire has been changed to address this comment.</p>
22	<p>Question 9A (first question labeled as such). In selecting portion sizes, the use of multiple descriptors may be challenging for survey participants. For example, there may be many people who no longer have checkbooks, making that comparison challenging. In addition, it may be difficult for people to determine how many cups of shellfish they have eaten when they are accustomed to visually identifying the number of pieces (i.e., 12 clams) without having any idea how many cups that represents without the shells. If the survey is going to be mailed to potential participants, we recommend that visual representations of different portion sizes be provided to assist respondents in identifying their portion sizes. The script for this, if these are the metrics that will be used in identifying portion sizes, will need to be carefully developed and pre-tested to determine if these comparisons will work.</p>	<p>The final version of the draft questionnaire has been changed to address this comment.</p>

23	Question 9B. Again we recommend that the question be reworded to include snacks as well as meals and that the word “acquire” be substituted with the word “get”, per EPA comments.	The final version of the draft questionnaire has been changed to address this comment.
24	Questions 9B, 10A, 11A and 11B can be combined in the same way as recommended for Questions 6A, 7A, 8A and 9A, above and all of the same modifications recommended for those individual questions can be adopted here as well.	The final version of the draft questionnaire has been changed to address this comment.
25	Question 12. Question 12 is not a question, it is a script. Recommend removing the question number.	The final version of the draft questionnaire has been changed to address this comment.
26	Question 12A. This question implies that the respondent may eat more fish than others, which may or may not be the case. We recommend that the script be modified as follows: “There are many reasons that people eat fish. What would you say are the primary reasons that you eat fish?” We then recommend that the question be asked as an open-ended question so as not to bias the response. Then the interviewer can check off the responses given or, if something different is given as a reason, can indicate that in “other”. We recommend that response “i” be removed as a possible response as it will not be necessary if the question is reworded	The final version of the draft questionnaire has been changed to address this comment.

27	<p>Question 13A. Similar to Question 12A, this implies that someone might be limiting their fish or seafood consumption. We recommend that the script be modified as follows: “There are many reasons that people limit their fish and seafood consumption. If this is true for you, what are the primary reasons that you limit your consumption?” Again, this can be asked as an open-ended question and the nearest response(s) checked.</p> <p>If, however, the lists will be read, rather than using an open-ended question, we recommend that responses “h” and “i” be moved after response “f” to avoid biasing responses. Also concerns about sustainability are very different from concerns about pollution. Because current response option “h” addresses concerns about pollution, we recommend that response “g” be modified to say: “I have concerns about the sustainability of fish resources”. These will allow these very different concerns to be differentiated.</p>	The final version of the draft questionnaire has been changed to address this comment.
28	Question 15. Question 15 is a script, not a question. Thus, we recommend that the question number be deleted. Also, this script should be placed after the following script as it does not appear that demographic information will be collected from individuals who have already provided it in previous interviews.	The final version of the draft questionnaire has been changed to address this comment.
29	Script following Question 15. It is assumed that this is meant to say “IF REPEAT SURVEY...”. Modify as appropriate	The final version of the draft questionnaire has been changed to address this comment.
30	Question 15A. It is better to ask for a specific age, rather than binning the ages. Binning can be completed later.	The final version of the draft questionnaire has been changed to address this comment.
31	Question 16A. The skip leads to Question 23 but should lead to Question 18A.	The final version of the draft questionnaire has been changed to address this comment.
32	Question 17A. This question should only be asked of individuals who indicate that they have some Native American or Alaska Native heritage (positive response in Question 16A).	The final version of the draft questionnaire has been changed to address this comment.

33	<p>Question 18A. Again, income should be asked specifically, not binned. Binning can be completed later. Also, individual income is not relevant. For example, a woman who is involved in raising her children at home may have no individual income, so that her income would be recorded as zero, but her household income may be very high. The important metric for comparisons among income groups and comparisons with other survey results is household income.</p>	<p>In order to remain consistent with US Census data which we will be using to help identify if our survey under or over samples certain parts of the population we are choosing to stick with the bins outlined. In addition, we are being sensitive to the private nature most people associate with their income and not asking for a direct number. Agree that the income question is about the household, and will make this clear.</p>
34	<p>Question 20A. As noted in prior comments, recording weight ranges is not helpful. It is not likely that individuals will respond honestly to questions about weight. In addition, because the metric to be used in developing WQC is g/day, not g/kg-day, this information is unlikely to be used. Thus, we recommend that this question be removed. However, if information about weight is ultimately determined to be needed, for example to compare with other surveys that have recorded consumption rates as g/kg-day, it would be far better to ask for a specific weight than to ask for ranges, as the use of ranges will require that unverifiable assumptions be made about the specific weight of the individual, thereby introducing bias into estimates</p>	<p>The final version of the draft questionnaire has been changed to address this comment.</p>
35	<p>Question 23A. This question indicates that only those individuals who responded affirmatively to Question 4 and or Question 9 may be re-contacted. However, discussions during the October 15 indicated that this would no longer the case and that all participants who consume fish (not just those who consumed in a single one-week period) would have an equal likelihood of being included in the group that receives repeat interviews. Thus, this should refer back to Question 2B instead.</p>	<p>The final version of the draft questionnaire has been changed to address this comment. Implementation of the survey to target those who consumed fish during the first 24 hr recall survey for a follow up interview should increase the probability of a repeat consumption day but will also change the overall statistical approach needed to do the data analysis. DEQ will work closely with the implementation contractor and those doing the data analysis to adjust for any bias that may be introduced.</p>

**Comments from EPA:**

	Comment:	Response:
36	The report would benefit from a thorough discussion of both the sample frame to be used and a brief summary of the data collection plan.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
37	In order to ensure that the target population is reached and the data collected will be useful, studies need to determine the specific research questions that the study will answer. The Idaho Fish Consumption Rate Study should include a focus on high consumers of local fish as well as the general population. If that is the case, it should be specified early and clearly within the document. A study design should be developed that assures overrepresentation of high consumer groups and uses a sampling frame that ensures representation of these groups. Depending on local conditions, high consumers might include tribal populations, various ethnic groups, economically disadvantages, and anglers, for example. Oversampling of the populations of interest could be done by enhancing the sample through lists provided by relevant sources (e.g., tribal rosters) or through a screening process to ensure that high consumers are oversampled. Both approaches may increase the challenges of data analysis, but will ultimately allow the study to answer research questions about high consumers in addition to the GP.	<p>DEQ understands the EPA concern. In order to get an accurate understanding of FCR for Idahoans the survey needs to be valid and reliable. That requires maintaining strict sampling procedures. The high-end consumers will emerge as a consequence of the survey. This will be done during phase two. Targeting high consumers presumes we know who they are in advance. It further assumes the regulatory fish consumption rate should be based on only high consumers. That is a policy choice, but one that should be informed by a broader knowledge of fish consumption rates than for just those that are high consumers. This is further complicated by lack of definition or agreement on what is a high consumer.</p> <p>Oversampling is only necessary if the survey design is not properly implemented or the total sample size is too small to break out percentiles. This is phase two issue.</p>

<p>38</p>	<p>The Boise State Fish Survey is intended to determine the frequency and quantity of local fish consumption among Idaho residents (anglers and non-anglers). A blended approach, combining elements of a 24-hour recall and a FFQ covering a one year time frame may allow reliable assessment of fish consumption, provided the two methods are carefully developed and applied. The proposed approach of collecting intake data for the past seven days is not a validated technique for yielding accurate usual intake estimates.</p>	<p>Our understanding is that a seven-day recall was successfully used in Florida. Also, a 7-day recall period would logically be more reliable than the annual recall period used in food frequency surveys.</p> <p>Seasonality is an issue that will be addressed through conducting surveys throughout a year, regardless of 24 hr or 7-day recall.</p>
<p>39</p>	<p>While obtaining consumption information for varying recall timeframes enables researchers to derive reliable estimates, the proposed methodology may create respondent bias and yield unreliable estimates. For example, question on type of fish, source, preparation method, and amount eaten are typically limited to the previous 24 hours or collected via prospective food dairies/records. In the proposed survey, consumers are asked such questions for the past seven days and this approach can result in inaccurate intake estimates. Additionally, fish intake may vary across seasons and intake in the past day or the past seven days is not representative of usual intake. Even among consumers, fish consumption is known to be episodic – high consumers may vary their intake (amount) with the seasons or for other reasons.</p>	<p>While it is likely that the 6-day recall will be less precise and possibly less accurate than a 24 hour recall, it is not clear from this comment how the 6-day recall is less precise or accurate than food frequency questions that are being put forth as the preferred alternative. DEQ understands and fully accepts that fish consumption varies which is why the survey will be implemented throughout an entire year to help address and correct for these episodic consumption patterns.</p>

40	<p>The selection of the dietary assessment method(s) for a research study should be driven by the research purpose, study design, and population of interest. Each dietary assessment method has strengths and limitations; for example 24-hour recalls allow researchers to obtain detailed information about the foods consumed, meal specific details, and timing of meals but represent intake over a 24-hour period. Similarly, FFQs enable researchers to obtain information on usual intakes but not about the meal specific details, timing of meals, etc. A thorough discussion of dietary assessment methods, their strengths and weaknesses, and settings under which they provide most useful information can be found in Thompson, F. E., and Subar, A. F. (2013). Chapter 1. Dietary assessment methodology. In "Nutrition in the Prevention and Treatment of Disease" (A. M. Coulston, C. J. Boushey, and M. G. Ferruzzi, Eds.). Elsevier: Amsterdam, p. 5-46.</p>	<p>Thank you for your comment.</p>
41	<p>The implications of not being able to obtain sufficient data to employ the NCI method must be considered. IDEQ may want to consider the inclusion of a food frequency questionnaire as a backup should analysis by the NCI method not be feasible.</p>	<p>DEQ understands the concern expressed here that sufficient sample size may be an issue during implementation of the survey. DEQ is not relying solely on the NCI method. Absent sufficient repeated recalls for those that report fish consumption to apply the NCI <i>correction</i>, the agency will still have data on fish consumption rates.</p>
42	<p>The derivation of survey sample size required for each population needs to be more clearly presented.</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>
43	<p>The discussion of the NCI method needs editing to insure accuracy (SEE email forwarded from Dr. Kevin Dodd).</p>	<p>The discussion has been edited.</p>

<p>44</p>	<p>The use of a mixed 24 hour / 6 day recall approach is not recommended. The reliability of information from a six day recall approach differs greatly from that of a 24 hour recall.</p>	<p>Boise State University only offers 7 days as an alternative not the preferred alternative. What the EPA is discussing is the reliability of the instrument. The reliability of the instrument is problematic. Reliability can only be confirmed through resampling several months out with the same individuals. This is an integral part of the NCI [one of its advantages] The EPA is correct that seasonality is an issue as NCI typically resampling within a number of days. There are statistical techniques to separate seasonality out of the within person variance. However, it is important to understand without other studies to baseline, it will only be a statistical separation and there will be variance [some seasonality will be lumped into within person variance or error and vice a versa] that will not be correctly identified. It also must be remembered that the standard adhered to with survey work is that conclusions are more probably than not the correct answer [mean] and you articulate the error [confidence interval].</p> <p>The alternative, if the preliminary results suggest this will be a problem, is to increase the recall period. DEQ respectfully disagrees that people cannot recall over a 7-day period a foodstuff that is intermittently consumed. For daily consumption of a multiple foodstuff I DEQ concurs any longer than 24-hour recall is too long. Pretesting will be able to confirm if this assumption is correct. And if 24 hour recall appears difficult to attain increasing it to 48, 72 hours or longer may be important.</p>
<p>45</p>	<p>If a 6 day recall approach is retained, then it is recommended that the questionnaire focus on collecting information on a meal specific basis rather than collecting it on the basis of information categories (e.g. consumed in Idaho or not). Looping back through all of the meals repeatedly to complete successive information categories will be cognitively difficult for the respondent.</p>	<p>The draft questionnaire has been modified to address collecting information on a meal specific basis. This draft questionnaire may undergo further modifications based on the outcomes of the pilot study done by the implementation team.</p>

46	Information to be collected in the survey needs to be mapped back to the objectives of the survey to insure that sufficient, but not extraneous data are collected.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
47	Please be clear about the population you are trying to protect. Is it people who eat fish from Idaho waters, people who eat any kind of fish, or both? The current document is confusing as to what is the population of interest. In some places it implies that the population of interest is the individuals consuming fish or shellfish from Idaho waters, but there are statements throughout the document that appear to refer to the consumption of total fish (including canned tuna for example).	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
48	Discuss why the survey is not addressing children's fish consumption. Children may be at disproportionate contaminant associated risk during development and may have higher intake rates per unit body weight than adults.	There are ethical considerations that make questioning children more difficult. Furthermore, if we did interview children it would be imperative we know and adjust for their weights as the criterion calculation is based on an adult body weight.
49	Discussion of how each population of interest (i.e. general population and recreational anglers) will be surveyed needs to be separately and clearly presented. Whether the same questionnaire will be used for each population needs to be specified. The choice of a telephone, mail or internet approach for the survey needs to be explicitly and clearly defined. The report seems to suggest a mail contact to ascertain interest followed by a telephone interview, but references to other survey approaches create confusion.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
50	Is only one person per household to be interviewed? Several? If several are to be interviewed, how will correlation be dealt with?	We are no longer using the household the unit of sampling, the unit of sampling will be individual adults.

51	Though background materials discuss general strengths and weaknesses of various survey approaches, there should be a discussion of the strengths and weaknesses of the survey approaches to be used by IDEQ specifically in relation to collecting information on the target populations for the Idaho survey (i.e. recreational anglers and the general population).	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
52	Further work needs to be done to examine how well the proposed portion size models can be used to quantify fish consumption. If mail or internet modalities are used, the use of image based portion size representations should be considered.	This will be done during the implementation phase of this project with the contractor responsible for doing the pilot testing.
53	The question skip/flow pattern of the survey does not seem appropriate in some cases and should be carefully examined.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
54	It is still unclear why the survey attempts to bin responses into ranges and groups rather than asking for specific values for data items (e.g. age, body weight, specific species consumed). Grouping and binning leads to loss of information. Precise responses can be grouped later into any categories deemed appropriate.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.

<p>55</p>	<p>On page 9 of the draft report, the authors discuss the NCI Method. The paragraph is a bit confusing. While it is correct that the NCI Method assumes that all respondents are consumers, this can easily be adjusted for by excluding never consumers from the analysis. Never consumers would need to be defined based on a survey question asking if the respondent ever consumes fish or gets at whatever the survey's definition of fish consumer is (e.g., never consumes fish from Idaho waters, never consumes any fish, never consumes more than incidental fish, etc.).</p> <p>The draft report also states that the NCI Method “assumes that the in-person variation is greater day to day than the between-person variation.” This is an incorrect statement. The NCI Method estimates both the in-person variation and the between-person variation from the data, either one could be greater; they are measured directly from the data. The draft report also implies that the NCI Method does not assume that the 24-hour recall is an unbiased estimator of the usual intake. This is also incorrect. The NCI Method implicitly states that it assumes that the 24-hour recall instrument is an unbiased estimator of usual intake.</p>	<p>Our survey includes a question on fish consumption frequency, separate from the dietary recall questions, specifically to help us better identify who consumes fish and who does not.</p> <p>We have revised the discussion of the NCI method and its assumptions.</p>
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<p>56</p>	<p>On page 6 of the draft report, the authors suggest a sample design requiring 7,000 surveys to reach statistical confidence. It is unclear how the sample size of 7,000 was calculated. It is again stated on page 7, based on NHANES and referencing a 2011 EPA analysis of NHANES data, stating that NHANES samples 7,000 residents a year. The sample size for NHANES is calculated for 2-years and data are released in two-year sets. Thus any analysis of NHANES data includes a minimum of two years (thus 7,000 sampled persons if considering those 18 and older), unless the researchers receive permission from NCHS to use only one year.</p> <p>While it is not clear, it is assumed that the 7,000 is referring to sample size and not number of completed cases. NHANES also has requirements to target and identify specific population groups and oversamples from within these groups – something BSU is recommending against.</p> <p>The NHANES sample sizes are influenced by the high cost of completing in-person medical visits and not necessarily ideal levels of precision for a specific research question on fish consumption. More evidence needs to be provided that this sample size will meet the needs for IDEQ. This is especially true given the need to identify high frequency fish consumers. It is important to note that NHANES is an intensive in-person survey with substantial resources for maximizing survey response. This level of success, in 2011-2012 interviewed response rate was 72.6% and examined response rate was 69.5% , should not be expected, especially if a different mode of data collection is used, or resources are limited (e.g. see response rates listed for surveys on page 8 of BSU document).</p>	<p>Sample size, to get the mean of a percentile, DEQ will need 50-60 completed surveys for each percentile mean they desire. This would imply that 200 completed surveys will be required. It is my understanding that for within person variance DEQ may well be able to use 60 double 24 hours recall samples</p>
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<p>57</p>	<p>Telephone-Mail/Internet-Telephone Approach – page 29-30: It is not clear why this approach is suggested as it has little basis in the survey literature (see work by Edith de Leeuw and work by Don Dillman). Generally multi-mode survey approaches begin with the most inexpensive mode and move to more expensive modes (usually involving an interviewer). That approach minimizes costs and uses additional modes to maximize response. As described here, this approach is likely to realize the lowest overall response as respondents must participate in multiple phases (phone then mail; phone then web) and some attrition is likely between phases. Response rates are calculated as the product of the yields of the various contacts, thus more contacts inevitably reduces response rates. The proposed approach would reduce cost at the expense of response. The idea of ‘the mixed method’ is grossly misinterpreted (why switch someone to mail if they are ready and willing to respond once reached by phone?).</p> <p>Mixedmode designs use a series of sequential modes to target non-respondents. In the suggested approach respondents must first be contacted (and essentially recruited) by telephone before completing the survey of interest in a different mode.</p> <p>Additionally, telephone sampling frames (land or land plus cell) will have the lowest coverage properties compared to area samples (in-person) or address based samples (mail, in-person). There is ample work that has illustrated hybrid methods that use addressed based sampling (ABS) frames with telephone data collection. These are desirable in cases where the interview must be computerized due to complexity or looping (repeating portion of the interview) –while maintaining the beneficial coverage properties of ABS frames. Hybrid approaches match the address to telephone number, and then collect a telephone number by mail for those that are ‘unmatched’. Match rates of 40 to 50 percent can be expected, and it should be noted that response can be low to requests</p>	<p>The M-T- I was proposed as a method to increase the participation rate. This researcher has had positive experience with preparing respondent. It also used by US Census for a variant on preparing the participant. EPA simply may not understand how this approach is used. One does not start with phone then move the respondent to Internet. Ultimately this will be a second phase issue.</p> <p>A further comment, the ideal is of course in person interviews for this type of survey. It is represented that this is not possible. A mail interview has a host of it issues. Because the nature of the NCI approach is time sensitive, mail is a poor vehicle. This forces the second best alternative. Boise State University proposes a dual frame approach because of these problems. FL used the telephone as well as other efforts with success for FFQ. It is logical that the same success can be achieved with 24-hour recall. But there is some risk as pointed out by EPA. This is the nature of the project.</p>
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	<p>for telephone numbers. The authors include cost-effectiveness as strength of this method (Strength 3, page 30). However, this is only cost-effective relative to in-person or a telephone-only interview. Cost savings may not be realized with the additional costs of mailing and developing a web instrument.</p>	
<p>58</p>	<p><b>Executive Summary – page 7</b> BSU does not recommend that IDEQ take extraordinary efforts to attempt to identify [sample] these groups [hard to reach subgroups] beyond those captured in the sample frame. BSU provides as their reasoning for this that they will have a better idea of how well this group has been captured [identified as respondents], and ‘to the extent possible’ weighting adjustments can be made. There is little information on the sample frame that BSU plans to use. The probability that hard to reach populations will be sampled will depend upon the frame used. Undercoverage of some hard to reach groups (e.g. low income; minority) is well established within RDD landline frames as well as their reduced response propensities. Applying weights to these groups may increase the variance of estimates and reduce precision of estimates. It is important to determine to what extent hard to reach groups consume fish in different patterns than other groups. If hard to reach groups are more likely to be fish consumers, they should be oversampled.</p>	<p>The frame question raised by EPA will be determined in phase two. This is not part of phase one though there is overlap. EPA has provided no evidence that these sub populations, for which they are concerned, have consumption patterns different that the rest of Idahoans. R-10 has been dealing with AK WA and OR that have coastlines where subsistence fishing can provide significant contribution to a household nutrition. This is simply not the case in Idaho. Additionally, if a household is using Idaho waters for subsistence living, they will be captured in the angler survey. This is a function of rivers v coastlines. DF&amp;G can be more efficient in enforcing licensing. And, finally, the tribal survey will provide the most probable population that uses Idaho rivers for subsistence catching. Between the angler and tribal surveys EPA should gain a measure of comfort that this class of people will be captured.</p>
<p>59</p>	<p><b>Idaho Resident – page 10</b> This definition may not be as straightforward as suggested. Newly located residents recently moved from another area/state may differ from longer term residents. At the least it may be worthwhile to collect the length of time the sampled person has lived within the state.</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire. Unless you create a sample panel for this question you may not collect sufficient numbers. Another question adds to the length the questionnaire and increases the compliant raised by other members of the negotiated rule making committee about collecting data not directly germane to the purpose of the survey.</p>

<p>60</p>	<p><b>Suppression rates – page 12-13</b> It is not clear what is meant by the recommendation to ask the suppression question “as a positive and as a negative to verify for consistency”... However, the comments of September 24, 2013 (attached) advised against asking hypothetical questions about changing circumstances which could lead to more or less consumption. Pg. 20 says “The questionnaire queries Idahoans’ perception of whether their current consumption is different than their past consumption or their desired consumption.”</p>	<p>One question asks it in the affirmative and the next question asks a similar question in the negative. Respondents may or may not be consistent in their answers. Perception questions are difficult to have internal validity as people often make up their feelings on the spot. This is why Boise State questions the necessity of this line of questions. Having said this, it is at the direction of the DEQ that some question be inserted to explore this issue.</p>
<p>61</p>	<p><b>Fish consumption vs. total diet – page 13</b> The plan is to focus only on fish consumption rather than total dietary intake. The arguments presented are certainly valid – asking about all foods consumed increases respondent burden as well as the cost.</p> <p>However, it’s not clear how the final two sentences in the paragraph justify this. Also, it is common for respondents to forget about ingredients of mixtures when reporting about single food items. The instrument would need to be carefully considered – there are validated instruments available that ask only about fish consumption which BSU should consider using or building from.</p>	<p>Boise State University primarily used the Florida and Washington questionnaire to build the questions. The deviations from these surveys occurred because these questionnaires focused on ocean fish that are of a secondary concern to IDEQ. Additionally these questionnaires were not concerned with developing a recall sample which impacts the nature of the questions. The Colville study did attempt the NCI method however this was an in-person interview that has different parameters for their questions.</p>

<p>62</p>	<p><b>Survey respondents – page 15</b> The statement that “the data collected from the two methods will be comparable” should explain how this will be ensured. One approach will use the household unit, where if understood correctly one individual responds for the entire household. This will be subjected to bias as the household member may not know of all consumption activities for all household members (e.g., foods consumed in a school cafeteria or by another adult eating a lunch at work). Further telephone data collection will have higher nonresponse than in-person increasing the potential for bias in the telephone mode. More thought should be given to the decision to use telephone data collection, since this is driving the data collection unit (household/individual). While telephone data collection is less costly compared to in-person data collection, telephone response rates have been decreasing for the past decade and with the rise of cell phone use, RDD landline frames have increasing coverage problems (possibly higher than 20% undercoverage). While these frames can be supplemented with cell-only frames, these also suffer from low response. Discussion should be provided for how this undercoverage will be dealt with or how it will affect estimates.</p>	<p>Idaho is no longer considering the household as the sampling unit, the sampling unit will be adult individuals.</p> <p>EPA’s concern about comparability is valid and shared. For the demographics this is not an issue. However, the fish categories and how the questions are asked are up to the tribes. Should EPA wish to “ensure compatibility” EPA will have to insure that the survey instrument by the tribes match that of DEQ’s. This is beyond the control of Boise State University or IDEQ.</p>
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63	<p><b>Portion Groupings – page 19</b> Empirical evidence should be provided that the “deck of cards” and “slice of bread” approaches for estimating portion size are: 1) valid measures and can be used consistently across respondents; and 2) are not cognitively difficult processes for respondents. The Academy of Nutrition and Dietetics recommends using the comparisons found here: <a href="http://www.eatright.org/kids/article.aspx?id=6442468830&amp;terms=tennis%20ball">http://www.eatright.org/kids/article.aspx?id=6442468830&amp;terms=tennis%20ball</a>. A publication used tennis balls and golf balls: <a href="http://www.ncbi.nlm.nih.gov/pubmed/15250844">http://www.ncbi.nlm.nih.gov/pubmed/15250844</a>. Additionally, consider using the methods provided in What We Eat in America, the dietary interview component of NHANES, which uses the items shown here (there may be a fee): Food Model booklet: <a href="http://www.cdc.gov/nchs/nhanes/measuring_guides_dri/2002/fmb.htm">http://www.cdc.gov/nchs/nhanes/measuring_guides_dri/2002/fmb.htm</a> Measuring cups and spoons: <a href="http://www.cdc.gov/nchs/nhanes/measuring_guides_dri/2002/measuring_cup_spoon.htm">http://www.cdc.gov/nchs/nhanes/measuring_guides_dri/2002/measuring_cup_spoon.htm</a> household spoons: <a href="http://www.cdc.gov/nchs/nhanes/measuring_guides_dri/2002/spoons.htm">http://www.cdc.gov/nchs/nhanes/measuring_guides_dri/2002/spoons.htm</a> For in-person interviews, these guides would just be carried by the interviewer. For telephone interviews, they can be mailed to the respondent.</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>
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64	<p><b>Gender Proportionality – page 21</b> Gender balance is not necessarily important for estimating consumption rates for each gender. However, it will be necessary to complete a desired number of interviews with each gender to make estimates with a given level of precision. There are a number of sampling methods available (for telephone data collection) that will randomly select an adult within the household. It should be noted that with telephone modes, even with random sampling methods, females tend to respond and say they are the selected person more so than males.</p>	<p>This is a nonissue, should there be a gender imbalance in the sample, as long as it is not too large the results can be weighted to account for the difference. However, the closer to the actual proportion less potential error will be introduced from weighting.</p>
65	<p><b>Age Scale – page 21</b> Aside from consent <i>issues</i>, should respondents under age 18 be interviewed? Most surveys typically ask for older minors to respond for themselves (with parental permission). Perhaps this is logistically difficult by phone, but is anything being lost this way? Parent proxy data can be problematic as described above. See NHANES guidelines on proxy interviews for child participants: <a href="http://www.cdc.gov/nchs/data/nhanes/nhanes_11_12/Dietary_MEC_In-Person_Interviewers_Manual.pdf">http://www.cdc.gov/nchs/data/nhanes/nhanes_11_12/Dietary_MEC_In-Person_Interviewers_Manual.pdf</a></p>	<p>There are ethical issues in interviewing children. This would greatly increase the survey length without a commensurate increase in the information that the survey would produce.</p> <p>We are not surveying children. See previous response to comment 48.</p>
66	<p><b>Idaho Caught Fish – page 25</b> Empirical evidence should be provided (e.g. identify surveys/data confirming these statements) for the source of fish for restaurants and markets. This may vary based on restaurant (chain vs. local) or market type (chain grocery or specialty market). These data will also be useful for providing an adjustment factor for those that report the source of the fish was unknown (if they report restaurant or market).</p>	<p>Empirical evidence would be interesting however; it is beyond the scope of this report.</p>

<p>67</p>	<p><b>Food Frequency Questions – page 25</b> The plan includes a 24-hour recall, and then asking about consumption over the past 7 days excluding the past 24 hours. Our previous comments indicated that this is a difficult and likely error-prone cognitive task for the respondent. Why does the plan not include a longer period of observation for infrequently eaten foods? The plan for capturing seasonality of consumption is not clearly defined (pg. 6).</p>	<p>Our survey does include food frequency questions.</p>
<p>68</p>	<p><b>In Person Interviews – page 28 – limitations</b> It is unclear why shorter questionnaires are listed as a limitation. While longer questionnaires will impact overall costs, the link between survey length and response is somewhat mixed in the survey literature. Generally shorter questionnaires are preferred for any mode, but if a longer questionnaire is necessary, in-person modes are optimal. This is due to the availability of an interviewer to motivate response.</p> <p>Limitations to sample size are only limited based on costs (see limitation 1). In-person modes generally require clustering of samples within areas to manage costs. This will reduce the effective sample size reducing precision or requiring larger samples.</p> <p>While participant acceptance for allowing a stranger into their home may be a reason for nonresponse, in-person modes generally enjoy higher response than other modes. This would be an unfounded limitation when compared to other modes.</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>

<p>69</p>	<p><b>Telephone Surveys – page 28</b> They mention “respondents who have been randomly selected for participation” but do not indicate how this will be done. Does this involve HH screening and enumeration?</p> <p>Strength 3: this is only relative to in-person modes.</p> <p>Strength 4: this overstates the relative success of telephone data collection. In-person modes will generally achieve higher response than telephone modes. Further, recent advances in address based (ABS) methods have shown mail data collection approaches to yield equivalent or better response than telephone approaches. (for more see: Brick, J.M., Andrews, W.R., Brick, P.D., King, H., Mathiowetz, N.A., and Stokes, L. (2012) Methods for Improving Response Rates in Two-Phase Mail Surveys. Survey Practice, 5(3))</p> <p>Limitation 1: The mention of caller ID as a reason for reduced telephone mode response rates needs empirical support. It is not clear that any literature states caller ID is used by respondents to avoid unsolicited calls. While this is widely accepted, what literature is available shows no support for the claim that caller ID has affected response.</p> <p>Limitation 3: it is not clear what is meant by ‘random dialing’. If this refers to RDD landline frames, this limitation will not be addressed due to increased undercoverage of landline frames (generally due to increase cell-phone usage). While dual-frame sample designs can alleviate this, they are more costly and suffer from increased non-response</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>
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<p><b>70</b></p>	<p><b><i>Mail or Internet Surveys – page 29</i></b> Strength 4: while social desirability is reduced in self-administered surveys, the extent to which such bias may be present for fish consumption surveys may be low.</p> <p>Strength 5: it is not clear what is meant by a ‘wider range of questions,’ which can be asked in selfadministered mode. Given the generally accepted increased response for in-person modes, the greatest burden (i.e. length, or number of questions) and cognitively difficult tasks would be better suited for inperson. For self-administered surveys it is generally necessary to simplify questions and tasks because of the lack of an interviewer or in the case of mail surveys, lack of computerization.</p> <p>Limitation 1: While not at the level of in-person surveys, many mail surveys have been shown to meet or exceed the level of response achieved by telephone surveys.</p> <p>Limitation 3: This is true for internet/web surveys. However, for mail surveys the rise of address based sample (ABS) frames using the United States Postal Service Delivery Sequence File have been shown to have high coverage of the U.S. population. ABS frames far surpass RDD landline and cell phone frames in terms of coverage of the population. There has been shown to be some concern with rural and multipoint drops (e.g. high-rises apartment complexes).</p> <p>Limitation 4: It is unclear how this is different from limitation 1.</p> <p>Limitations of internet surveys do not mention lack of internet access for some portion of the population. However, it appears that telephone interviews will also be an option.</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>
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71	<p><b>Budget and Sample Size – page 32</b> It is assumed that 80% of Idahoans eat fish monthly and therefore, 2 recall questionnaires from 1 respondent will yield sufficient data. However, on pg. 33, it states that “Idahoans reflect the national average that about 50% seldom or never consume fish.” Maybe this refers to just fish from Idaho, but it is not clear.</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>
72	<p><b>Conclusion – page 36-37</b> The conclusion suggests a survey targeting all adult Idahoans and Idahoans with a fishing license. The discussion should provide information on the source of the sample frame, expected coverage of the population (Idaho), and potential issues (likely undercoverage). The discussion should also describe if there will be any oversampling or stratification of particular areas (e.g. areas near bodies of water; rural areas; areas with high minority concentration).</p>	<p>Boise State does not propose that IDEQ do any over sampling by water body or by minority. IDEQ was clear they are interested in a statewide average by consumption percentile. Should IDEQ revise their goals then these recommendations would warrant a second look.</p>
73	<p><b>Intro to Questionnaire</b> It should not tell respondents that it will take longer if they report eating Idaho fish. This could bias the respondents to under-report consumption. It should instead say something like, “the length of the interview will depend on your answers, but it could take from 5-15 minutes.”</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>
74	<p><b>24-hour Recall [comment included in previous review]</b> The “last 24-hours” may vary based on when it is asked and how people think about meals within the last 24 hours. Standard 24-hour recalls ask about the previous day, from 12:00AM to 11:59PM.</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>
75	<p><b>Q6A, Q7A, Q9B, Q10A [comment included in previous review]</b> Consider using wording of a lower grade level or more conversational words (e.g. get vs acquire; eat vs consume). More conversational terms will be more widely understood by respondents.</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>

<p>76</p>	<p><b>Q9A (first instance) &amp; Q11B [comment included in previous review]</b>                  While the purpose of the size prompts (deck of cards) is to make it easier for respondents to report what they ate, as structured the current prompts used may be cognitively difficult. If the interviewer is completing the task for the respondent there may be acquiescence bias. The respondent may be unable or unwilling to check the interviewer's math and will agree with whatever the interviewer provides as a reasonable answer. While this is a paper version of the telephone questionnaire, for Q9A the response categories do not allow for precise fish weights to be entered. E.g. if the respondent says 6 ounces, will the interviewer be required to convert to checkbooks or deck of cards? This is not clear in the paper version provided.</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>
<p>77</p>	<p><b>Q9A (second instance) [comment included in previous review]</b>                  24 hour versus 7 day recall. A 24-hour recall of foods is a standard method of collecting short term dietary intake; research clearly shows that asking respondents to report actual intake more than 48 hours from the time of reporting decreases accuracy and reliability. As mentioned above, a combination of a 24-hour recall to capture specific information about the type, preparation and portion of fish eaten combined with an FFQ is more likely to yield reliable data. The period of time for the FFQ does not need to exclude the time for the 24-hour recall; attempting to do so is cognitively difficult for respondents.                  Note that a standard 24-hour recall means the previous day, from 12:00AM to 11:59PM, and is not based on the time of reporting.</p>	<p>Please see the response for comment 44.</p>

78	<p><b>Q12A &amp; Q13A</b> As written this question is a single yes/no. That is, the list is read then the respondent is asked if any of these reasons apply to them. This will require the interviewer to re-read the list, or the respondent may interrupt the interviewer while the list is read. Suggest rewording to: "Some people eat more fish or seafood than others for a variety of reasons. Tell me if any of these reasons apply to you." READ EACH ITEM IN LIST AND WAIT FOR RESPONSE. For respondents who are incidental fish consumers, for example, eat fish because it was part of what they were eating (anchovies on pizza), or an ingredient in an appetizer. Suggest adding a response category, it was on/part of something else I was eating. Question 13A, to a small degree, presupposes the respondent limits, or tries to limit their fish consumption. Suggest first asking a filter question as to whether or not the respondent limits their fish consumption. Further these reasons may vary between fish and seafood (e.g. shellfish). Consider whether or not it is important to measure both.</p>	This question has been revised.
79	<p><b>Q16A[comment included in previous review]</b> As written this item does not follow current OMB standards for collect ethnicity and race. While for this study it may not be necessary to follow OMB guidelines, comparison with other study results will be needlessly complicated by the different approach. OMB guidelines first ask Spanish, Hispanic, Latino origin, then race and it should be mark all that apply. See <a href="http://www.whitehouse.gov/omb/fedreg_1997standards">http://www.whitehouse.gov/omb/fedreg_1997standards</a></p>	Thank you for the comment. DEQ will evaluate the recommendations and make corrections accordingly after consultation with the implementation contractor.
80	<p><b>Q17A[comment included in previous review]</b> This question should be separated into two items. The first question asks if the respondent is a member of an Idaho tribe. If yes, then ask which tribe.</p>	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.

81	<p><b>Q21A</b> Why not ask for the entire zip code? This does not appear to be a very sensitive item and it may be easier for respondents to just say entire zip, or they may do so regardless.</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>
82	<p><b>Q23A</b> Asking for permission to call back is not recommended. Instead, just inform the respondent that they will be called back in a few months.</p>	<p>While the EPA may find this acceptable, both the university and ISO international standards would disagree with this advice.</p>
83	<p>Will there be a final study design document prepared after review and discussion of these documents that will clearly summarize how the survey will be conducted and how the data will be evaluated? The current documentation is a mixture of background material and a discussion of potential development choices for the Idaho survey. The specifics of the Idaho survey need to be clearly presented for both the general population and recreational anglers.</p>	<p>Yes, there will be a final study design document. But we also expect the survey questionnaire will undergo further refinement in pilot testing in the implementation phase.</p>
84	<p><b>P5, outline item 2a:</b> The 90th percentile and potentially others should be included as well. It may be worthwhile to characterize the distribution of the data too.</p>	<p>Our plan is to have our results shown as a distribution of fish consumption rates.</p>
85	<p><b>P5, Executive Summary, 1st para:</b> More specifically, IDEQ did not consider data on high fish consumers.</p>	<p>We disagree, but have moved on to getting Idaho specific fish consumption data.</p>
86	<p><b>P6, para 2:</b> The document states that “up to 7,000 surveys” will be required. This is quite vague. Can more detail be provided? Do you mean that the sample design will include a sample size (up to 7,000 surveys) that is sufficient to reach pre-determined levels of statistical confidence? What if 7,000 is not sufficient to reach an acceptable level of confidence?</p>	<p>More detail is provided in the final study design document.</p>
87	<p><b>P6, para 3:</b> Also add discussion of bias introduced by using a survey methodology that is potentially not accessible to individuals without access to the internet or stable addresses?</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>

88	<b>P6, 2nd to last para:</b> Not clear as to what increasing the research design means.	This has been revised in the final study design document.
89	<b>P6, final para:</b> Distributing administration of surveys over the seasons of interest would seem appropriate. Re-interviewing individuals in each of the three seasons would also be another approach.	Our plan is to administer the survey throughout a year. Using a panel approach, re-interviewing a select cohort in each season, is still an option.
90	<b>P7, 1st para:</b> Some discussion of U.S. census data and the small percentages of unique ethnic groups present in the Idaho population would seem to be appropriate. Further, there should be some analysis of the fraction of the population that has internet access.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
91	<b>P7, para 1:</b> The end of the 2nd sentence of this paragraph should say “whose culture traditionally includes consumption of fish.” The word “decent” in the last sentence of the 6th paragraph should be “descent.”	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
92	<b>P7, FCR Survey and Articles, general comment on section:</b> Please add reference citations for the studies in this section (e.g., CRITFC, Washington Dept. of Ecology, etc.).	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
93	<b>P7, FCR Surveys and Articles:</b> In the 2nd paragraph on NHANES it says, “The consumption of food frequency can be reliably estimated; it is more problematic to derive the quantity of fish consumed.” Please explain. Also, the last sentence of this paragraph refers to “this survey”, but it is not clear to which survey it refers; do you mean the NHANES survey?	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
94	<b>P7, final para:</b> To the best of my knowledge, NHANES did not use the NCI method. The State of Washington has re-analyzed the NHANES data using the NCI approach.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.

95	<p><b>P8, WA Dept. of Ecology Fish Consumption Rates:</b> Identify the technical support document and identify the individual surveys that WA has relied on.</p> <p>At the end of the paragraph on the Washington study, it states that the surveys produced a mean range is 6 g/day for fresh water fish to 214 g/day for the Squamish tribe. Does the mean of 6 g/day for freshwater fish apply to the general population; is the 214 g/day for the Squamish Tribe also for fresh water fish? Without some clarification the reader does not know if these values are comparable in terms of the type of fish or population represented.</p> <p>Editorial: various populations.</p> <p>Not clear as to what the point is here. Ecology's TSD reviewed studies that have already been completed.</p> <p>Might be useful to add a table including additional statistics.</p> <p>Change to Idahoans or Idaho.</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>
96	<p><b>P8, IDFG Annual Angler Survey:</b> In the section on IDFG Annual Angler survey, it is not clear what the following statement means: "The relatively high response rate may be due to the involved stakeholders with the health of fish populations."</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>
97	<p><b>P9, Behavioral Risk Factor Surveillance System:</b> The word survey at the end of the 2<sup>nd</sup> sentence should be plural, and in the 3<sup>rd</sup> sentence the word 'about' should be inserted between "the survey asked" and "both the frequency."</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>
98	<p><b>P9, A New Statistical Method...:</b> In the section on A New Statistical Method..., the word 'method' should be inserted after "NCI" in the 4<sup>th</sup> sentence. It is not clear what is meant by the last sentence in this section.</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>

99	<p><b>P10, target population</b> - Why not include children in the study; like other studies, adults could be asked about children in their household (i.e., are they eating the same fish as the adults, how do their portion sizes and frequencies differ from those of the adults?)</p>	See response to comment 48.
100	<p><b>P10, survey respondent</b> – The last statement in this section says that the survey will target individuals as the survey unit, but this appears to contradict what is said on page 15 under Survey Respondents where it says that IDEQ desires to collect data by household. It is not clear to me who is being surveyed, the household or the individual.</p>	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
101	<p><b>P11, Non-Fish Consumer:</b> IDEQ's quantitative analysis of the impact of misclassification of consumers vs. non-consumers needs more rigorous review and should not be cited as accurately characterizing this issue until such a review has been conducted.</p> <p>What is the 90th or 95th percentile mean?</p> <p>The statement that “The potential of the error significantly shifting the 90th or 95th percentile mean significantly is remote” may be true when you consider anyone who eats fish (as indicated by the discussion in the slides presentation), but may be not be true when only consumers of Idaho fish are considered (43% are non-fish-consumers).</p>	The analysis is hypothetical – albeit based on known consumption patterns; don't see where the issue of accuracy comes into question. The analysis can be repeated with actual data obtained from our surveys, but still the effect will be a relative comparison of what including or excluding identified non-consumers does to the statistics. Accuracy can be assessed only if we somehow know for sure everyone's true fish consumption rate.
102	<p><b>P11, Idaho recreational angler:</b> Youth anglers will be excluded, but why can't adults be asked about their children's fish eating habits?</p>	EPA seems to underestimate the ethical issues in interviewing children.

<p>103</p>	<p><b>P12, minority populations:</b> This section states that if representation is a concern, census data will be examined after the data are collected. Why not evaluate the census data beforehand and target a representative sample? Subpopulations have members that are high fish consumers?</p>	<p>DEQ is targeting a subpopulation that is anticipated to be a high-end consuming population with the recreational angler survey. The agency will also rely upon the collaboration with the tribes to supply further information on presumed high-end consumers. Due to time, budget, and resource constraints, those are the only two presumed high-end consumer populations that will be targeted. Implementation of the survey will not stratify based on ethnicity, suspected household income, or other common stratifiers as that would increase the required sample size to one that cannot be supported with current time and budget constraints.</p>
<p>104</p>	<p><b>P10, Survey Respondent:</b> Would you try and get multiple individuals from the same household? If so, then there needs to be discussion about how potential correlation in consumption rates could be addressed.</p>	<p>Idaho is no longer considering the household as the sampling unit, the sampling unit will be adult individuals.</p>
<p>105</p>	<p><b>P12, Suppression Rates:</b> Editorial: Change to suppressed rates? More specifically, suppressed fish consumption chiefly relates to populations that may have decreased their fish consumption over time. Suppression may result from a number of factors. These factors include: changes in habitat reducing fish populations, reduced access to fisheries resources due to land ownership restrictions, fear of contamination in fish, and changes in family social structure that preclude spending time harvesting fish. The phenomenon of suppression is often discussed in relation to the consumption of fish by Native Americans. Questions could be included to determine whether intake was less than during previous periods or less than desired and why. A list for the respondent to choose from of possible reasons for not eating at the same rate might include: health concerns, concerns about contaminants, availability of species, changes in leisure time, loss of access, difficult access, etc.</p>	<p>Our survey questionnaire includes questions aimed at identifying if suppression occurs and why. No attempt is made to quantify suppression. It is not the purpose of this survey to quantify suppression due to accessibility, sustainability, health concerns or other potential reasons for eating or not eating fish. The purpose of this survey is to quantify usual intake in order to help set water quality criteria.</p>

106	<b>P13, 1st paragraph:</b> The Wabanaki study addressed how to establish a baseline of resource use, but didn't really review and discuss the factors contributing to suppression.	Thank you for the comment.
107	<b>P13, bulleted list:</b> Is the intent to ask survey respondents if these factors are modifying their fish consumption?	Yes.
108	<b>P14, survey methodology:</b> Will there be an issue with consistency in the interpretation of results if different survey methods are used?	Possibly. This issue will be analyzed and addressed in the analysis of survey data.
109	<b>P15, minority populations:</b> How will this issue be addressed?	DEQ will ask participants to identify ethnicity. However, this survey will not stratify based on ethnicity, gender, social status or other factors except perhaps location. This decision was made in order to fit within the confines of budget and time. DEQ will rely on the recreational angler and tribal studies to quantify consumption of presumed high-end fish consumption sub-populations.
110	<b>P15, consumption suppression:</b> How will this issue be addressed?	Questions have been re-written as suggested in the Arcadis comments to identify suppression. Suppression of fish consumption however will not be quantified as that analysis is outside the scope of this project.
111	<b>P15, Survey Respondents:</b> SEE page 10. This seems to be in conflict with Idaho's earlier definition of survey respondent.	Thank you for the comment. This has been corrected.
112	<b>P16, 2nd para:</b> Wouldn't seasonal variation potentially be a factor contributing to within person variance?	Yes, and we will do our best to account for this.
113	<b>P16, including respondents' weight:</b> It would be useful to collect self reported body weight data so that the intake rates could be normalized to body weight. Since intake rate and body weight are correlated, it makes sense to express the FCR on a body weight basis.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.

114	<b>Page 16; 5th para:</b> Reference where the NCI method is explained.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
115	<b>P18, 1st para:</b> Define “incidental” and “non-game.”	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
116	<b>P18, 2nd para:</b> It is still unclear to me as to why coding is needed at a group level. If species are identified, then grouping can be done after consumption is recorded. Grouping species together and using a code for consumption of all species within a group results in loss of information.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
117	<b>P19, Portion Groupings:</b> the text states that there is no real way of determining the quantity eaten for mixtures. Would it help to consult EPA/OPP’s Food Commodity Intake Database for recipe information? If the survey is going to use the internet, might it not be possible to use portion size images?	DEQ will look into this during the pilot testing of the questionnaire with the implementation consultant.
118	<b>Page 20; 5th line from the top:</b> What survey methodology will be used? It is implied here that there will be an in-person interview. The impression created earlier is that the survey was a mailed contact with a telephone follow up.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
119	<b>P20, Demographics:</b> Another purpose for collecting survey demographics is to determine how well the survey population reflected characteristics of Idaho’s population. If the survey and State populations don’t compare well, it may be necessary to collect more data.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
120	<b>P21 Gender Proportionality:</b> Gender will be selected at the beginning of the survey to ensure representativeness. Why not race and other factors?	DEQ has chosen to re-evaluate the need for a gender quota. This will be discussed in more detail in the final draft survey design documentation. It is not the aim of this survey to identify various fish consumption rates for various populations within Idaho but to help identify a fish consumption rate that can be used in development of water quality criteria.

121	<b>P21, Questionnaire Introduction:</b> Discuss how introducing the survey may bias the response.	Thank you for the comment. The discussion has been edited to clarify.
122	<b>P21, Age Scale:</b> It is still unclear as to why ages simply can't be recorded and then categorized after the fact.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
123	<b>P24, Weight Scale:</b> Why not simply record the body weight? Use of body weight classes will add uncertainty to computations of consumption in terms of grams of fish per kilogram per day.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
124	<b>P25, Food Frequency Questions:</b> Previous comments have noted that the quality of intake information greater than 24 hours will differ from that of 24 hour recall. There should be some discussion of this issue.	Thank you for the comment. The discussion has been edited to clarify.
125	<b>P25, Idaho Caught Fish:</b> Adding a question as to whether or not each fish item consumed is from Idaho waters would simplify this.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
126	<b>P25, Portion Size:</b> This section is inconsistent with the discussion of portion size characterization in the portion groupings section.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
127	<b>P26, Survey Methods:</b> Should identify the target populations again and note that the utility of these approaches is being discussed for the target populations of interest. Further, this broad discussion of survey methods should be followed by a discussion of the strengths and weaknesses of the specific methods chosen for Idaho populations.	Thank you for the comment. The discussion has been edited to clarify.
128	<b>P27, Creel method limitations:</b> Additional issues include angler willingness to complete the survey, the fact that only fish caught up to the time of the interview are recorded, and that the angler may not be the person who prepares the fish, thus leading to inaccuracies in characterizing fish consumption.	Thank you for the comment. The discussion has been edited to clarify.

129	<b>P27, Diary method limitations:</b> Additional issues are that the literacy of the sample population is required and that daily recording of intake may alter dietary behavior. Additionally, extracting diary information may be expensive.	Thank you for the comment. The discussion has been edited to clarify.
130	<b>P28, In Person Interviews:</b> What does “geographically constrained” mean?	This phrase has been removed from the document and appropriate changes made.
131	<b>P28, Personal Interview Limitations, B2:</b> Disagree. Personal interviews which can be arranged in advance in either the individual’s home or a comfortable location offer the best support for posing a longer, more detailed questionnaire.	Thank you for the comment. The discussion has been edited to clarify.
132	<b>P28, Personal Interview Limitations, B4:</b> This can be ameliorated if the sample population is cohesive (e.g. a tribe or ethnic community), the population is briefed to improve their cooperation including support from community leaders and the interviewers are members of the population from which the sample is drawn.	Thank you for the comment.
133	<b>P28, Telephone survey limitations:</b> Other issues are that there are no visual aids for species identification or portion size characterization. Further, individuals without phones cannot participate in the survey. Finally, survey length is limited by the fact that individuals may not wish to be on the phone for a long period of time.	Thank you for the comment. The discussion has been edited to clarify.
134	<b>P29, Limitations mail or internet surveys:</b> Additional limitations include literacy of the target population, need for stable addresses – mail survey, and access to a computer/computer literacy/internet connection – internet survey.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
135	<b>P29, Limitations mail or internet surveys, B5:</b> Disagree. Portion size and species photos can be provided for both mail and internet surveys.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.

136	<b>P30, Bias from Respondent and Researcher:</b> why is bias lower for an internet survey relative to a phone survey?	Thank you for the comment. The discussion has been edited to clarify.
137	<b>P31, Sample Design:</b> This section should be clear as to what are general aspects of sample design and what is specific to the Idaho survey.	Thank you for the comment. The discussion has been edited to clarify.
138	<b>Page 32, Budget and Sample Size:</b> A point to consider is that regulators may not wish to use the mean to compute standards, but rather some other statistic (e.g. an upper percentile). Consequently, it is useful to consider how sample size affects uncertainty in other statistics. It is recognized that relating sample size to characterizing the mean is well developed relative to investigations of sample size to characterization of other statistics (e.g. upper percentiles). The RMWL team identified an approach for relating sample size to uncertainty in upper percentiles.	Thank you for the comment. The discussion has been edited to clarify.
139	<b>P32, Sample Sizes for the Surveys:</b> Sample size computations should be developed separately and transparently for both the Idaho general population and Idaho anglers. It is unclear how the sample size equation is used. What values are to be used to solve for sample size. What fraction of the population has to have two days of consumption in order to conduct statistical modeling?	Thank you for the comment. The discussion has been edited to clarify.
140	<b>P32, Log Normal Distribution:</b> Transparently present how the needed number of completed surveys was determined.	Thank you for the comment. The discussion has been edited to clarify.
141	<b>P33, NCI Approach:</b> Sample size computations based on precision of the mean and data requirements for statistical modeling need to be reconciled. Expand on this. Transparently explain why 50 to 60 surveys are required.	Thank you for the comment. The discussion has been edited to clarify.

142	<b>P33, Idaho Population Sample:</b> It is agreed that oversampling is important. However, current Idaho frequency of fish consumption information should be relied on to a greater degree than old national data. Expand on: "If we assume that there needs to be 15%..."	Thank you for the comment. The discussion has been edited to clarify.
143	<b>P34, Idaho Fish Sample:</b> Editorial: IDEQ seeks to characterize consumption of fish obtained from the waters of Idaho?	Thank you for the comment. The discussion has been edited to clarify.
144	<b>P35, Minimizing Sample Size:</b> Derived using assumed lower frequencies of sample size?	The discussion has been edited to clarify.
145	<b>P37, Conclusion:</b> The issues associated with combining 24 hour and the following 6 days of consumption data have not been addressed. Earlier, it was noted that suggestions for accounting for seasonality were outside the scope of this document. The document should discuss seasonality.	Please see responses to comments 44, 45 and 77.
146	The number of required surveys is presented for the general population survey? How about the recreational anglers? Earlier ranges of required numbers of surveys were identified, why not present those here?	Thank you for the comment. The discussion has been edited to clarify.
147	<b>P44, Central Limit Theorem:</b> Define what the null hypothesis is in this context.	Thank you for the comment. The glossary has been updated.
148	<b>P45, Normal Distribution:</b> Define using the formula	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
149	<b>P45, Probability Density Function:</b> Is the function describing the probability that a variable will have a particular value.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.

150	<b>P46, Single Tailed Distribution:</b> Right skewed distribution occurs when the median is less than the mean.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
151	<b>Q1A:</b> Why is a male needed? How will the interviewer know if a male is needed?	Thank you for the comment. This question has been re-written.
152	<b>Q2A:</b> How about do you eat seafood at all?	Thank you for the comment. This question has been re-written.
153	<b>Q2B:</b> Do they really mean to refer the respondent to question #17? Is it 17A? Shouldn't it be go to question 12?	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
154	<b>Q3:</b> Specify that seafood includes shellfish.	Thank you for the comment. We will implement this suggestion in phase two.
155	<b>Q3:</b> There appear to be too many columns associated with ascertaining frequency.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
156	<b>Q3:</b> The need for the "check for yes" column is unclear. The row specifies which time period over which frequency is being ascertained.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
157	<b>Q4A:</b> It was previously mentioned that one might wish to anchor the time frame for the 24 hour survey. For example: "From 8 AM yesterday to 8 AM today..."	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
158	<b>Q4A:</b> If no seafood has been consumed in the past 24 hours, what is the purpose in skipping to question 9?	This question has been re-written.
159	<b>Q6A:</b> Seems like there are too many columns here. Why not provide a list of codes to be entered describing source of food for each meal (e.g. C – caught in ID waters, N – not caught in Idaho waters, U – unknown)?	Thank you for the comment. The questionnaire has been re-written.

160	<p><b>Q7A:</b> It is still unclear as to why group coding needs to be introduced for species at this point. If species are properly identified, then they can be grouped after information has been entered into a database. What is the recall period for question 7A?</p>	Thank you for the comment. The questionnaire has been re-written.
161	<p><b>Q8A:</b> The table format seems to use a great deal of space. Why not provide code values to identify various preparation types? It is not clear why preparation methods are being collected. Potential reasons could be to convert cooked to uncooked weight or to examine contaminant exposure to individuals as a function of cooking method. For example, broiling would result in loss of fat and lipophilic contaminants. In this regard, consumption of soups and stews might be recorded, as contaminant loss for these methods during cooking is low. Again, this should be a topic for a comparison of survey objectives and data to be collected.</p>	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.

<p>162</p>	<p><b>Q9A:</b> Prompt for consumption of recipes that may contain seafood (e.g. stews).                  An alternate approach would be to identify the model and then the multiples of the model consumed. Perhaps the interviewer might have a table identifying which model is associated with which species. If the Web is going to be used to support the survey, it is possible that more realistic portion size mages might be used.                  If the respondent chooses to specify a specific fish weight, rather than use a model, how/where would that weight be recorded?                  The prompt should be more descriptive about the relationship between models and portion size. For example:                  “I am now going to determine how much fish you ate for your meal. I am going to do this by using common household objects to help determine the amount of fish you consumed. For example comparing the portion size you ate to a deck of cards: Was what you ate half the size of a deck of cards, equal to the size of a deck of cards, two times the size of a deck of cards, three times the size of a deck of cards, etc.                  Seven Day Recall: Moving between collecting information on categories of information over multiple meals may be cognitively difficult for the respondent. Likely the respondent will remember information on a meal specific basis. It is true that this may be a more difficult approach to collecting data, but this can hopefully be addressed by use of trained interviewers.</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>
<p>163</p>	<p><b>Q11b:</b> How will consumption of soups, stews or other mixtures be recorded?</p>	<p>We have added an additional field for collecting this information.</p>

164	<p><b>Q12a/13a:</b> It may be appropriate to specifically ask women their feelings about consuming more fish for the health of the fetus or not consuming fish because of risks to the health of the fetus associated with contaminants in fish. These questions might also delve into consumption of self caught fish. Questions, related to characterizing suppression of consumption by anglers are as follows:</p>	<p>The purpose of this survey is to define a usual intake for fish within the general population of Idaho to further the development of water quality criteria. While it would be nice to have data on suppression and other issues, the accompanying data analysis and general ambiguity of qualitative data such as recommended by this comment is beyond the scope of this work.</p>
165	<p><b>Q15A:</b> It is unclear why there is a need to bin ages as ranges rather than provide actual values. The collection of specific ages offers the flexibility to bin the data for comparison with other data sets. The rationale for binning should be provided and discussed.</p>	<p>Thank you for the comment. The questionnaire has been re-written.</p>
166	<p><b>Q16A:</b> What is the rationale for skipping to Q23 for non-Native Americans? Skipping to Q18A seems logical.</p>	<p>Thank you for the comment. The questionnaire has been re-written.</p>
167	<p><b>Q18A:</b> Clarifying the purpose of questions is important. As previously mentioned, the survey should collect only the information needed to meet survey objectives. This analysis should precede the survey instrument.</p>	<p>Thank you for the comment. The questionnaire has been re-written.</p>
168	<p><b>Q20A:</b> It is unclear why there is a need to bin body weights as ranges rather than provide actual values. The collection of specific body weights offers the flexibility to bin the data for comparison with other data sets. The rationale for binning should be provided and discussed</p>	<p>Thank you for the comment. The questionnaire has been re-written to incorporate an open-ended question for body weight.</p>
169	<p><b>Q21A:</b> Determination of spatial variation in fish consumption is useful and will also allow determination of geographic coverage of the State. However, it would be useful to have more background information provided for the intended use of the data.</p>	<p>Thank you for the comment. There is no intention to stratify the sample by geography at this time. The draft survey design document has been edited to hopefully clarify the point being made here.</p>

## Comments from Mountain Whisperlite:

#	Comment:	Response:
170	The sampling frame is not described at all, but its nature and coverage are important, so I hope we will see more about that.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
171	How about some more detail on the use of households as the unit of sampling? I am concerned about the potential bias from taking the adult who answers the phone as the respondent. Also, it will be good to put more in the report about the analysis plan to accommodate sampling by household but analysis by person.	Idaho is no longer considering the household as the sampling unit, the sampling unit will be adult individuals.
172	Stratification is only briefly mentioned, but stratification seems like a helpful method to be representative of the Idaho population and monitor under-reporting (and later correction for it) for some population groups.	We are still considering stratification, but there are limits to how much we can stratify and so we want to be selective, have good reason for any stratification we do.
173	Sample size justification is usually in terms of precision, and it would be good to see more in the report about that.	Thank you for the comment. This section has been edited for clarification.
174	The portion display section seems like a work in progress. The recent email from Dr. Amy Subar suggests some display options.	Thank you for the comment. We have edited this section.
175	The questionnaire seems to rely wholly on the NCI method for estimation of quantitative consumption rates. You may wish to have some brief FFQ (food frequency questionnaire) items (including quantities), in case the NCI method assumptions don't fit well, and, also, in order to be able to provide rates for sub-groups (which can also be done with the NCI method, using covariates, if the NCI assumptions hold and there is a large enough sample with two recalls including fish.)	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
176	P5 Project Overview – I presume you will calculate other percentiles.	Yes, any percentile of interest.

177	P6 Executive Summary – The method needs two or more 24-hour recalls, but the consumption of fish (or non-consumption) on each recalled day is according to the person's normal habits. If there are two days, consumption may happen on both days, one day or on neither day. What drives the sample size (your next sentence) is that there needs to be enough "two-hit" paired days—among all of the paired days—for estimation of certain model parameters.	We acknowledge this. This is being captured in the revised section on sample size in the survey design supplemental document.
178	P7 Executive Summary – Yes, good, use the post-stratification method in case some strata have a low response rate. The appropriate weighting needs to be applied to each stratum. See, for example, Groves et al. Survey Methods, 2 <sup>nd</sup> edition or other survey textbooks.	Thank you for the suggestion.
179	P9 FCR Surveys and Articles – I understand that the NCI method developers are adapting their method to accommodate never-consumers. Please check with them.	Thank you for the comment. DEQ has remained in contact with Drs. Kevin Dodd and Amy Subar during the revisions to the draft survey document.
180	P9 FCR Surveys and Articles – I do not believe that this is a requirement. We have read about and computed with the NCI method and I have never seen this assumption. Also, statistically, the method does not need this assumption. There is indeed, an assumption that there is a within-person component of variation and a between-person component of variation....but there is no need to specify a relationship between the magnitude of the within-person and the between-person component of variation.	We have revised our discussion of the NCI method.
181	P10 FCR Surveys and Articles – I suggest being in touch with Dr. Kevin Dodd to work through some of the issues with the NCI (and other) methods. Also the Idaho Tribal surveys will likely be using the NCI method, and the two survey implementation teams can collaborate on inquiries with and dialog with Dr. Dodd and other methodologic [sic] experts as has been happening so far.	Thank you for the comment. Please see the response to comment 179.
182	P10 Target Populations – Do you have a restriction to adults for either population?	Yes, we will only be sampling adults, those 18 years or older.

183	P 11 Survey Respondent – It will be important to describe sub-selection of respondents within a household and then, statistical handling of the clustered sampling approach during analysis, if you take more than one person per household.	Idaho is no longer considering the household as the sampling unit, the sampling unit will be adult individuals.
184	P11 Idaho Resident – It sounds like a case of the unknown – no evidence for or against an effect of inclusion or exclusion. It is acceptable to just define the population as persons residing within Idaho households. You should probably add something about institutional populations and those not residing in a household (homeless people, etc.).	Thank you for the comment. Those population will be addressed as best we can identify them during phase two (implementation) of the fish consumption survey.
185	P11 A Fish Consumer – Dr. Dodd (one of the NCI method developers) has commented that they are working on methodology to address non-consumers within the sample.	This will likely be helpful.
186	P12 A Fish Consumer – This reduction of the mean would be the case for the “per capita” fish consumption distribution. For the distribution of consumers-only	Yes.
187	P12 A Fish Consumer – This section has some interesting points, and I suggest that it be statistically reviewed and modified. The adjustment in relation to the BRFSS survey results may be quite technical, and it would be good to outline the ideas for that here.	This section has been edited and reviewed.

<p>188</p>	<p>P12 Idaho Recreational Angler – It seems fine to make a practical decision that the Idaho angler population, for the purposes of this survey, includes all people who have had a license within the past 18 months (or some other period.) However, if the licenses are annual, then you may have people who had a license 17 months ago but who have become non-- consumers since then. That (and cases like it) needs to be addressed, even if it is a small number of people. Also, if the license is annual, then the current consumption survey will encounter people who had a license then but not now; their consumption rate from Idaho waters will probably be lower than the consumption rate of a current license---holder. You are heading into a messy mixture of “anglers” with and without licenses at the time of the survey. Can you just go with current license holders? Will that leave out some people you would like to call “anglers”? And,. There may be people who get a license but never fish. Can you superimpose a definition of angler on top of this scheme? How about having a question, for example, to determine if the person has gone fishing within the last year? This whole issue needs some more specification. And, will you limit the angler population to adults?</p>	<p>This is further clarified in the final study design document.</p>
<p>189</p>	<p>P12-13 Idaho Recreational Angler – In your questionnaire you can (and perhaps do) identify non-consumer “anglers” (e.g., people who got the fishing license incidentally – as part of a package – but who do not consume fish.) This whole survey is about eating fish, so it will be important not to let non-consumers leak into the analysis dataset. The licensing of anglers is just a way of getting at people who go out and catch fish and eat the fish. The licensed population per se is of no interest. The people who catch and eat fish (i.e., true anglers) are of interest.</p>	<p>We disagree that the whole survey is about just fish consumers, furthermore there are serious concerns about how we define or identify true non-consumers.</p>

<p>190</p>	<p>P 13 Idaho Recreational Angler – If there is a lot of illegal (unlicensed) fishing and people just occasionally get a license, then the wide window for licensing is good. However, then you need some kind of working definition of “angler” to screen out people who are not actually fishing. ie., they are not really anglers.</p>	<p>We are not going to screen out those that do not eat fish. In large part this is because of the difficulty in knowing, in advance, who truly eats no fish. But also because we strongly believe it is important to know what the complete distribution of fish consumption rates is, so as to be able to compare that to fish consumers or even those further right on the distribution of rates if that is defined.</p>
<p>191</p>	<p>P13 Idaho Recreational Angler – Can you give a specific age restriction?</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>
<p>192</p>	<p>Minority Populations – It would be good to specify in advance (in outline form) how this merging of a new sample with the original sample will happen. Also, the issue is not minority vs. majority ethnicity. The issue is more vs. less accessible populations. If you can define a stratum that includes the less--accessible and if you know or can estimate this group as a proportion of the whole population, then you can do a post---survey sampling of them (using the outreach you describe.) By the way, I searched the document for use of stratification in sampling, and I did not see anything. I highly recommend stratified sampling to help you end up with a more representative sample.</p>	<p>It is not a merging, it is simply a portion of the larger, whole population, sample.</p>
<p>193</p>	<p>Suppression Rates – I am guessing that you mean the perception questions would not be used to adjust quantitative rates. I.e., the consumption rates in g/day would not be changed. However, responses to the suppression questions (12A and 13A) can be considered as part of policy---makers’ determinations. I don’t think that you mean the perception data will be collected and then ignored. In the questionnaire I did not see any questions about limiting fishing due to environmental or pollution concerns. Will that be included in the angler survey? And, how about something in the questionnaire about changes in behavior due to the various concerns? It is, indeed, a cross---sectional study, but you can ask about change in consumption or fishing (plus or minus) and reasons for it.</p>	<p>That is correct; we plan no attempt to quantify suppression, or unsuppressed rates.</p>

194	Common Core Data Elements – I did not see gender among the survey questions. I strongly recommend that you add it. You will have to have a polite way of determining gender. I would not suggest relying on voice quality alone.	Thank you for the comment. The questionnaire includes a question on gender.
195	Survey Respondents – Please clarify and amplify how respondents will be selected from within the household. And, if all are selected, describe how the clustered sampling will be addressed in the analysis. Also, what is the sampling frame that will be used to identify households? Who has the list of households and what are the descriptive items (variables) included in that list? These variables might be used for stratification. How up-to-date is the list? Also, please offer some discussion on who or what kinds of people or households may not be reachable through that list. Is it a serious omission? How will those households or people be reached? The description of the sampling frame and a discussion of its strengths and limitations is one of the most important features of the design.	Idaho is no longer considering the household as the sampling unit, the sampling unit will be adult individuals.
196	High Consumption Population – You might report the rate of fines or convictions for poaching as supporting evidence that there are few poachers. Comparing the number of poaching fines/convictions vs. the number of angler licenses would be informative. Also, if there is much angling for non-game fish, how will you capture that? It would be helpful to see some examples of the most common non-game fish species. We need to know if non-game fish is a non-issue or needs to be addressed. E.g., are there places where non-game fish are plentiful and people go there to fish without a license?	Thank you for the comment. Idaho law requires those harvesting fish or shellfish to have a license. We have relied on our sister agency, Idaho Fish & Game, to provide us with this information and it is their conclusion that poaching is a non-issue.
197	Including Respondents Weight – The design of the tribal surveys includes collecting respondent weight. In some reports grams per kilogram per day (g/kg-day) has been used. It may be a tough question over the phone.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.

198	NCI Method Implementation – However, in the second 24 hour recall assessment it will be possible to oversample (sample at higher rate) the respondents who (by some plausible reasoning) are more likely to be eating fish in that second 24 hour assessment period. The oversampling (and under-sampling for others) can be based on the responses to the first 24 hour recall and the FFQ.	Thank you for the comment.
199	Questionnaire – The questionnaire appears to be headed toward complete reliance on the NCI method for estimation of consumption rates. Have you considered adding some sort of food frequency questions (FFQ—with quantities)? If the assumptions of the NCI method don't seem to hold or if you need rates for sub--groups (e.g., gender, age groups, etc.), you can estimate them from the FFQ. The FFQ is an acceptable method and can be “insurance” for the survey. If the NCI method works out, and if its assumptions hold, then that will be excellent. However, the NCI method is still relatively new to the policy world, so you may wish to have something “tried and true” available, as well.	Thank you for the comment. The questionnaire has been edited to include some FFQ questions.

<p><b>200</b></p>	<p>Demographics – It may be very helpful to stratify the sample to insure a better representation of the Idaho population and to increase precision of your estimates. It also helps you to monitor response rates during execution. True, your large sample size would give good representation of the Idaho population, if the probability of a response (vs. no response/no participation in the survey) is the same for all individuals. That uniform response rate is unlikely to happen. The precision of estimates will improve if the strata represent different rates of consumption. If you do urban/rural stratification, that may pay off in better precision. You might stratify by county groups or by other factors that are considered to be potentially predictive of consumption. You can then use weighting after the sample is in (post---stratification) to make up for strata with lower response rates. You also need to plan in advance, perhaps in outline form, the steps you will take to fold in the extra sampling for under---responding populations—an issue that you mentioned earlier.</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>
<p><b>201</b></p>	<p>Gender Proportionality – Here is an example where stratification can help. Why not stratify on gender? You will have a specified sample size per gender (in combination with any other stratifying variables, e.g., season) and you can continue sampling of randomly selected households until you reach your gender number per stratum. If you just interview whomever answers the phone in a household, you may have a) some pretty serious post---stratification work to do, and b) (not mentioned previously) you will have a potential selection bias in respondents, due to differences in people who answer the phone vs. those who tend not to.)</p>	<p>DEQ will attempt a quota survey to help insure equal numbers of male and female respondents within the general population survey. We will not attempt to stratify the sample a priori based on gender. Due to the nature of the recreational angler population (typically a male dominated sport) this will not be done for that sub-population.</p>

<p>202</p>	<p>Income Scale – It is good to do the stratification in advance, if possible, minimizing the “make---up” work after the survey. Also, asking income will not insure proportional representation. Some kind of stratified sampling plan would be needed to achieve that. As stated elsewhere, the information available in your sampling frame will be a guide to stratification.</p>	<p>Additional stratifiers will require the overall sample size to grow to a point that the agency is no longer able to support the survey. Therefore although it would be helpful to do this stratification a priori, the agency does not have the resources to do so. More importantly, the overall goal of this survey is a single fish consumption rate for the state, not a series of fish consumption rates that are applicable to various ethnicities, social status, or other factors.</p>
<p>203</p>	<p>Food Frequency Questions – The seven day window seems too wide. In an email exchange with Dr. Amy Subar, an NCI dietary survey expert, Dr. Subar responded (11/8/13) to the following question posed by me. Q. “There has been some discussion around the table about using longer periods than 24 hours, in order to increase the frequency of "hits" (a person consuming fish) and two "hits" (consumption during both of the recall periods.) For me, yesterday's diet is hard enough to remember, but what do you feel about a more extended period? We are currently planning only 24---hour recalls for the tribal surveys.” Dr. Subar's advised against using a period longer than 24 hours. Dr. Kevin Dodd, an expert on the NCI method, also responded negatively about using an extended period. Here is an additional comment, which is an interpretation of Dr. Dodd's response. The 24---hour period (“yesterday”) is a well---defined time concept for virtually everyone. And, virtually the only source of error will be the respondent's uncertainty about consumption during that 24---our period. However, when the period is expanded to six or seven days, then additional sources of error creep in, namely, a) uncertainty about when that period begins, and, b) compared to the 24---hour period, there will be poorer memory about day---by- -day consumption during that period. Since the NCI method depends on a specified period of time for the recall, common among all of the respondents, the fuzziness of the respondents' time perception of 6 or 7 days duration plus the memory error for the extended period seems like a serious problem.</p>	<p>Please see the response to comments 44, 45, and 77.</p>

204	<p>Idaho Caught Fish – can see the value of finding out if fish are caught in Idaho State, but for the eventual use of these survey data in water quality regulation, you may wish to find out if the fish are caught anywhere (vs. purchased.) Also, some of the distinctions between caught in Idaho and caught in other States (such as Washington) can be rather gray. For example, the Snake River borders ID and WA, so if an Idaho angler happens to catch a fish on the Washington side of that river will that not be counted as Idaho---caught? And, if an Idaho river or stream enters another State and an Idaho angler catches a fish there, how will you count that? IDEQ may certainly like to make a distinction between Idaho---caught and fish caught elsewhere, but I understand that the larger picture of water quality regulation needs information on fish harvested in any State. I am not an authority on water quality regulation and just offer this as something to look into.</p>	<p>The survey instrument allows the participant to identify the source(s) of fish consumed. There will be “grey” areas in this information just as there is variance in the other parameters collected in this survey. One of the policy decisions that will be made over the course of the next year is whether to evaluate all fish consumed or simply look at only fish from Idaho waters that are consumed. The survey instrument attempts to collect all data necessary to help support any policy decision that will be made.</p>
205	<p>NCI Approach – The need for at least 50 – 60 respondents with two days of positive fish consumption is to estimate the within-person variance of log consumption with reasonable precision.</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>
206	<p>Idaho Population Sample – A lot of numbers are calculated and mentioned here. It will be helpful to describe the calculations in more detail.</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>
207	<p>Idaho Fish Sample – The calculations behind the numbers is not clear here and in the next paragraph. Because the sample size is so critical, it would be good to spell out the calculations in more detail.</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>
208	<p>Conclusion – While a precision equation was offered earlier, it would be good to have some computations of precision for the chosen sample size. Precision for the NCI method will be difficult to present, but some precision calculations for the estimates based on food frequency would be good to include.</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>

<p><b>209</b></p>	<p>Appendix D – If there is an inflated within--person variance (compared to actual consumption) of episode to episode consumption, it would reduce the estimated between--- person variance in the NCI method. In a practical sense it would reduce the 95<sup>th</sup> percentile and other high percentiles calculated by the NCI method. This is just a fact of life that probably has to be accepted.</p>	<p>Thank you for the comment.</p>
<p><b>210</b></p>	<p>Appendix D – This is an interesting section, but it would be good to clear up the connections between photos, tables, representative volume objects (deck of cards, bread, etc.) and the questionnaire. It may all be here, but bringing it all together more succinctly will be helpful. Also, it seems like some new methodology for portion sizing is being proposed so piloting this will be important.</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>

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Comments from Idaho Aquaculture Association, Inc.

#	Comment:	Response:
211	<p>Idaho Caught Fish - We believe the last sentence in the paragraph above is misleading and will lead to erroneous interpretation of the results collected from survey questions 6A and 9B.</p> <p>The purpose of the fish consumption rate survey requested by IDEQ is to determine if the fish consumption rate found by the survey is protective of all who consume fish from Idaho surface waters. Idaho farm-raised trout (defined as market trout) are not grown in "Idaho waters" according to the designation of Idaho waters in this negotiated rule making. For the purposes of this specific survey, "Idaho waters" refer to rivers, lakes, streams or reservoirs where fish that belong to the state are caught for recreation and/or subsistence, and subsequently consumed. These same rivers, lakes, streams and reservoirs may be contaminated with substances that may affect the health of people who eat those fish. This negotiated rule making relates to the amount of fish consumed that are taken from state surface waters and whether or not state water quality criteria are protective based on a state-wide fish consumption rate.</p> <p>Idaho farm-raised trout should not be confused or identified with trout taken from state waters with regard to this rule making, including the survey instrument. Idaho farm-raised trout are grown in spring water-fed ponds under very controlled conditions. The U.S. Food and Drug Administration (FDA) has the primary federal responsibility for the safety of seafood products in the US, including Idaho farm-raised trout. In 1997 the FDA adopted a regulation (21 CFR Part 123) that required all seafood processors to utilize the preventive system of food safety controls known as HACCP (Hazard Analysis Critical Control Point). Seafood was the first food commodity in the U.S. to utilize this science based system of preventive food safety controls.</p>	<p>Thank you for the comment. The overall purpose of DEQ fish consumption survey is to identify the rate(s) of consumption of the general population and recreational anglers in Idaho. This will help inform policy decisions that will be made during the course of negotiated rule-making to allow the agency to set water quality criteria that protect those who consume Idaho fish. It is the intent of the agency to identify sources of fish so to better inform the rule-making committee of where the fish that are being consumed come from. This information will then be used by the committee to help decide some of the questions raised by this comment. The purpose of gathering information on source of fish is specifically to help answer the policy question being identified in this comment.</p> <p>The draft document and questionnaire have been re-written to address this comment as well as the many others received. The survey will identify market bought fish as different from sport caught to the best ability of the respondent to remember.</p>

<p><b>212</b></p>	<p>Survey questions 6A and 9B attempt to make the distinction between farm-raised (market) trout and trout caught from state surface waters that may or may not be contaminated with harmful substances. We believe, however, that verbiage on page 25 will prejudice the interviewer to lump market trout and wild-caught trout as having been grown in Idaho waters of the same quality. Doing so will harm the reputation of Idaho farm-raised trout and will not provide an accurate representation of the source of fish consumed by the public.</p>	<p>Thank you for the comment. The questionnaire has been re-written to incorporate this and the many other comments received regarding identification of source of fish consumed.</p>
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## Comments from Idaho Fish and Game

#	Comments:	Response:
213	Page 11: Idaho Recreational Angler – On the question of “can a holder of a fish license be considered a never fish eater?” The answer would be “yes.” Many anglers who hold Idaho Fishing licenses, only practice catch-and-release fishing and never harvest fish. We have no information as to whether this means they don’t consume fish.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
214	Also, in this same section, there is a statement that says, “Boise State University recommends that any holder of an Idaho resident fishing license be considered an angler.” We recommend that you consider holders of combination (hunting and fishing) along with Sportsman’s Pack licenses, as “anglers,” as well. Antidotally, people who buy combination licenses are probably more avid outdoor people and have a higher likelihood to consume fish caught in Idaho waters than people who just buy a Fishing license. We offer a number of adult combination licenses and can help identify specific license groups to pull samples from once a vendor is selected.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
215	Page 12, paragraph 2 – Clarification – You need to purchase a license to fish for game or <u>nongame</u> classified fish in Idaho. In the legal sense, fishing is defined as: “any effort made to take, kill, injure, capture, or catch any fish or bullfrog within Idaho.”	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
216	Page 19, Coding of Fish and Shell Fish Chart – Prompts – On the Idaho Fish Codes, we suggest the following changes to consolidate groups of fishes that are more closely related:	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.

217	Page 19 – Portion Groupings – a “check-book” may not be an item that younger generations can relate with because most don’t carry a check book. You might want to add a second comparison item like a “smart phone” or describe the portion size as equal to “the palm of your hand.”	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
218	Page 20 – Don’t worry about a definition of a “sea run trout.” These are actually classified or called “steelhead” and the information should be captured under code B.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
219	Page 25 – Idaho Caught Fish – We didn’t see in the survey a field for specific waterbody where Idaho fish were caught. If there is a goal, as stated in the section, “to identify the water from which the fish was caught,” then a field should be added to the survey for the information.	Thank you for the comment. The attempt to identify the water from which the fish was caught refers only to the distinction between Idaho waters and non-Idaho waters. The agency is not trying to identify a specific water body from where the fish was harvested.
220	Page 34 – Idaho Fish Sample – There are some wording issues in this paragraph (i.e. IDEQ seeks to identify the consumption behavior of Idaho fish.).	Thank you for the comment. This discussion has been edited.
221	Page 44 – Idaho Fish(ing) License holder – This should be defined as “an Idaho resident who has been domiciled in the state for at least 6-months and has purchased a fishing, hunting, or Sportsman’s Pack license.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
222	Page 45 – Poacher – because we are looking solely at anglers, it should be defined as someone who violates or does not follow the rules presented in the 2013 – 2015 IDFG Fishing Seasons and Rules booklet. This would include failure to purchase a fishing license, exceeding bag limits, utilizing illegal gear, etc.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.
223	Page 48 – Recommend using the above Fish Coding chart.	Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.

<p>224</p>	<p>Page 57 – Demographics – if an angler sample is pulled from the IDFG license database it will already show the age and weight of the person being surveyed – at least as reported the last time the individual purchased a fishing or driver’s license. It may not be necessary to have individuals answer these questions.</p>	<p>Thank you for the comment. We have incorporated your suggestion into the final version of the survey design and draft questionnaire.</p>
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Comments from Northwest Food Processors Association

#	Comments:	Response:
225	<p>However, we feel the current survey design is overly complicated, which could result in the validity of the research being questioned. A telephone survey design with the questions asked for this research serves little purpose as an adequate tool for the issues being examined. The United States Environmental Protection Agency (USEPA 1992) recommends that telephone interviews only be used as a follow-up to collecting information, that the number of questions be limited, and that combined mail/telephone techniques be used to provide questions, visual aids and other information before interviews are conducted. Many people do not have land line phones and the use of “caller ID” enables people to easily screen or avoid survey calls, thus further skewing the population sample and results of this research.</p>	<p>We are aware of issues with landlines versus cell phones and other difficulties with getting responses from people, It will be up to our survey implementer to do their best to get the responses we need.</p>
226	<p>One other issue that continues to raise concern is the collection of information on other sources of fish or seafood; those sources that are not wild caught in Idaho waters. The ultimate purpose of this effort is to update Idaho water quality criteria and standards. Therefore, we would echo the concerns previously expressed by others on this point, that data collection should not be tainted by collection of data on fish that comes from markets, restaurants or brought in from other states, from other water bodies outside of Idaho.</p>	<p>This is a policy choice yet to be decided, but in order to ascertain what fraction of fish is Idaho caught we need to ask about, account for all sources.</p>

<p><b>227</b></p>	<p>Finally, we would also raise concerns that the scope of the survey is too lengthy for being administered by telephone to produce accurate results and the survey design will not adequately correlate the two populations it is intended to measure. It is important for the IDEQ to carefully review both the survey and sampling design to ensure the results of this research are valid for determining the use of the information. NWFPFA stands behind the importance of WQS but we are concerned about the prospect of following other states down the path of creating unattainable standards based on questionable survey results.</p>	<p>We are doing our best to collect scientifically sound, minimally biased data on fish consumption, in Idaho.</p>
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