Monitoring Boaters' Experiences on the Snake River in Hells Canyon: Responses to Comments August 20, 2003 Troy Hall & Ed Krumpe

Source	Comment	Response
Robert Lee	Study should validate the ROS designations; ROS may not reflect people's actual experiences and activities	The HCNRA planning process established management goals for desired experiences. The purpose of monitoring is to determine whether those experiences are obtained, rather than to determine what current visitors would desire. Nevertheless, the study design will permit us to evaluate what experiences people actually seek (by virtue of an explicit set of questions on the front-end contact card included in the revised study plan). We also altered one question in the mail survey to ask the extent to which boaters sought and attained each experience. Additionally, managers have the option to use study results to revise management. For example, if they find that people are obtaining experiences different from current plan prescriptions, they may choose to amend the plan. **Action: Front-end contact cards were amended to ask visitors what types of experiences they**
		seek (launch contacts) and attained (take-out cards)
	"Experiences such as 'solitude' are elusive and highly variable subjective social and psychological states that are not determined by the physical setting and, as	While it is true that such experiences are elusive and subjective, we believe that visitors are the people best able to determine whether they have such experiences. If a visitor claims to have experienced solitude, s/he experienced it, even if his/her definition of solitude differs from that of other people. Therefore, we think it is useful and valid to ask directly about such experiences, rather than asking visitors to provide a generic evaluation of management and setting conditions.
	such, should perhaps not be a management objective"	Forest Service direction instructs managers to establish goals for experience opportunities, and this approach is widely used by recreation managers (USDA Forest Service 1982). In fact, prominent recreation researchers have argued that physical setting and activities in combination do provide opportunities for specific experiences, even if they do not guarantee the attainment of such experiences (see, for example, Driver et al. 1987). Given this policy direction and research concurrence, we feel it is important to focus on experiences, despite their elusive nature. We will be able to analyze correlates of those experiences, for example number of encounters with other boaters and perception of specific conditions.
		Action: Questions were not reworded. Correlational analyses will be conducted to help interpret visitors' attainment of different experiences

Asking primary season visitors about their use in the secondary season will yield invalid estimates of	Surveys are not intended to function as use estimation devices. (The FS records are quite complete and probably much more accurate.) Therefore, the reviewer's concern does not appear to be an issue.
secondary season use.	However, sampling designs were amended to include more secondary season sampling days. This should allow direct analysis of the views of secondary season users. Nevertheless, it is possible that low and variable use in the secondary season could result in smaller than desirable samples. Therefore, we plan to continue to include the questions about secondary season use on the survey for all visitors.
	Action: Sampling was amended to survey more secondary season visitors directly. A question was added about use during the secondary season and reasons for such use.
Are off-season use level data available to inform sampling?	Year-long use data for every day of calendar year 2001 were obtained and utilized to revise sampling. (See the revised study plan – pages 6-16 – for a much expanded and detailed description of sampling.)
	Action: Sampling was amended to survey during the secondary season
Will contact cards be given to all visitors? In particular, will children be sampled?	We intend to survey only visitors 16 years and older. Initially we had planned to survey all boaters on sample days and later subsample from the contact cards to obtain our sample for the mail survey. After examination of the expected number of visitors each day, we determined that it would be more effective and efficient to obtain interval samples of visitors on site, rather than later. We will survey every other private power boater, one-in-five commercial power boaters, and every float boater. This approach allows us to sample over more days of the year and increases the likelihood of being able to contact the target number of boaters each day. (It would be difficult for the surveyor to interact with every boater on large trips; interval sampling will remedy this problem.)
	Action: Sampling has been substantially revised (See study plan revisions pgs. 6-16)
The survey should include questions about where boaters stopped, what they did, and how they felt about their experiences in each setting	Because there are hundreds of sites that visitors could enjoy, it is impractical to include questions about all specific stops. However, the survey does include questions about perceptions of historic sites in general, prehistoric sites, and developed facilities. In addition, we added questions specifically about evaluations of Cache Creek and Pittsburg Landing in the revised instruments.
The study should not use	Action: Minor additions to questionnaire items. We propose to use two instruments, because asking each boater about both river sections would
separate surveys for the Wild and Scenic sections, because it is important that all boaters	result in a very long (and seemingly redundant) questionnaire. However, the questions are virtually identical on each version. (The only differences are 5 items – out of almost 125 total items – that are specific to the Wild or Scenic sections. For example, the "scenic" version
be able to respond to the same questions.	includes a question about facilities at Dug Bar and Cache Creek, while the "wild" version asks about Kirkwood Ranch.) We therefore believe the reviewer may have misinterpreted our

	approach. As he suggests, we intend to compare responses from boaters on the Wild section to those on the Scenic section (i.e., between-subjects design). This will allow FS managers to determine whether boaters on each section seek and obtain different experiences, perceive different conditions, or differ in any other dimensions. Consistent with our overall analysis plan, these comparisons will be done within boater categories (e.g, private power boaters on the Wild section vs. private power boaters on the Scenic section), rather than across all respondents lumped together.
	Action: We have clarified the study plan to indicate the intended comparisons of Scenic boaters to Wild boaters.
Asking boaters to reflect on their prior visits (prior to 1996) may result in data of questionable validity. Dissatisfied visitors may have been displaced	The issue of displacement is a difficult one. It is certainly possible that some boaters have not returned to the river because of conditions or management. We are unable to determine the extent of this phenomenon. However, we believe it will be useful for the FS to know whether boaters who still continue to boat on the river perceive conditions to have changed. In particular, if continuing boaters perceive deterioration in conditions or experiences, this could signal a large problem.
	Action: We will retain the questions, but our analysis will include qualifiers about the potential for the results to overlook views of displaced users. Also, the time frame was changed to 1998 (5 years), rather than 1996.
The survey headings of "environmental" and "social" conditions in Q2.2 and Q2.3	We concur that some conditions we characterized as "environmental" have a strong social or normative element.
may be misleading	Action: We revised the questionnaire to include all the items in one battery with a generic heading of "conditions."
The mail survey should ask about crowding on the last trip, not on "typical" trips.	Because trips are likely to be highly variable, we concur with the reviewer. Action: The question was changed to refer to the specific trip on which the boater was contacted.

The survey's language asking boaters to "consider all their past trips" is problematic. Asking boaters how	We concur that asking boaters about all their past trips would mix the perceptions of those who have made many trips with those who have made few trips. We therefore have changed the survey to refer to the trip on which they were contacted by our research team. It is important to point out one down side of this, however: any low-frequency but significant, events might be under-reported. (A boater might have had one particularly good or bad experience in the past that affected his/her use of the river, but this will not be reported unless it occurred on the specific trip in question.) Action: Several survey questions have been changed to refer to "the trip on which you were contacted by our research team." However, questions that ask about general perceptions (for example, about the adequacy of facilities and about the types of experiences generally offered on the river) were not changed, because it seems more appropriate to ask for general evaluations in those contexts. It is true that subjective experiences can stem from many factors. Our questions ask boaters to
conditions affected their "self-reliance, challenge, and solitude" creates an unstable reference point. These are highly variable and may be caused by factors other than the river environment.	indicate the extent to which several specific factors contributed to or detracted from the experiences the FS strives to offer on the Snake. Factors largely out of managerial control or not indicated in the River Plan (such as moods and weather) were not included. While it is true that experiences are elusive and subjective, we believe that visitors are the people best able to determine whether they have such experiences and to indicate what contributed to them. Therefore, we think it is useful and valid to ask directly about such experiences, rather than asking visitors to provide a generic evaluation of management and setting conditions. No Action
Results should be presented to include measures of distributions, not just central tendency	In addition to central tendencies, we plan to include frequency distributions for all measures. This is the most overt way to display both central tendency and distribution. Action: The study plan has been revised to more clearly describe the intended data displays.
The study plan does not propose to combine the four boater groups in analysis, and it should not.	We concur and reiterate our intention to present analyses for each of the four user groups separately. No Action

	The study should ask boaters directly about the acceptability of different management actions. This would be of "far greater utility."	Asking about how management affects specific experiences is different from asking whether boaters support or oppose certain management actions. Asking about support for management does not allow managers to evaluate whether managerially prescribed goals are being met. As a hypothetical example, managers of a rock climbing site might strive to provide high levels of risk, and therefore prohibit fixed anchors. In this setting, climbers would likely report experiencing high levels of risk. However, they may not desire such risks, and may not support the actions taken to ensure them. Because our study is a monitoring study, we feel it is necessary to ascertain directly whether various conditions and management actions enhance the opportunities for prescribed experiences. The study is not intended as a referendum of management support. **Action: As a compromise, we have included an open-ended question asking boaters what, if
	Asking boaters to indicate whether the river has changed since 1996 is problematic, because recall is "notoriously unstable."	anything, they would choose to change in terms of river management, and why. Much of the research on memory demonstrates that recall is relatively accurate (Pearson 1992, p. 86). Personal memories (especially affective states) are retained reasonably accurately, though over significant periods of time (weeks) they will change (Parkinson et al. 1995). Recall tends to be more accurate for the "gist" of an experience than for specific details (Koriat et al. 2000). Nevertheless, Thomas and Diener (1990) reported significant differences between actual and recalled moods. Our questions are more of the sort asking about gist and affective states, and therefore we feel comfortable asking them. However, we will acknowledge the potential limitations of memory in our study. (Interestingly, though, one might argue that if a visitor thinks things have improved or deteriorated, such a perception is what matters most, both to the visitor and to managers.) Additionally, we will examine the data for variation across conditions – if boaters feel that some things have improved and some things have deteriorated, this may be an indication of more accurate recall. No Action
Rick Just (Idaho State Parks)	Idaho Power's boater studies appear to have been overlooked in the study plan.	We examined the Idaho Power studies and found that most of the questions were not particularly relevant to the goals of FS monitoring. For example, there were two pages of questions about fishing, two pages about hunting, and two pages about flow levels. However, we concur that it is important to track changes where possible, and we have included questions that appeared on IP studies. The revised study plan indicates these questions in Table 11. Where possible, analyses will explore changes over time. **Action: Questions that appeared in Idaho Power's study are identified, and a question about activity participation from the IP study was included.**
	The study plan seemed to have some problems with sampling, specifically in combining the PPS (probability proportionate	The sampling has been considerably revised, with separate sampling strategies being developed for each of the four user groups. The number of days per launch is directly proportionate to the use level, so that the problems noted by the reviewer have been resolved. (See the revised study plan, pages 6-16 for details.)

to size) and cluster techniques.	
	Action: Sampling strategies have been amended and better explained.
The study plan's statement that there were no prior data on Snake boaters to use in computation of sample sizes was in error.	Although various studies of boaters have been performed on the Snake, prior data generally do not provide the statistics needed for computations of sample sizes for the current types of questions being asked. For example, Krumpe et al. (1989) typically used nominal data, and we propose to use continuous data. Data from the Idaho Power studies usually come from different types of questions, and therefore would not necessarily be appropriate.
	Importantly, even though a variety of data was used in computations of sample sizes, they all tended to converge in terms of target n's, which lends confidence to our sampling approach. Moreover, our approach over-samples each user group. No Action.
The state of a significant of the	
The study plan indicates that 1/5 of boaters will be contacted.	This was not explained clearly in the study plan. The revisions to sampling and the description of sampling have cleared up this confusion. Target n's have been predicted based on actual use data from 2001, so that we can specify precisely what sampling intensity and interval will be obtained for each user group.
	Action: The sampling sections of the study plan have been fully revised. (See pages 6-16)
It is not clear why Kirkwood should be included as a sampling location.	Initially, we believed that there would be some commercial power trips that could not be contacted at Hells Canyon Dam, Pittsburg, Heller Bar, or Cache Creek (the sites proposed in the first study plan draft). After a review of use data for each user group and discussions with FS staff, we determined that commercial boaters can best be contacted at their specific launch sites. Therefore, we eliminated Kirkwood as a contact site and added the Quality Inn in Clarkston, Hellsgate State Park Marina, Red Wolf Crossing, and Swallows Park boat launch as sampling sites for commercial power trips.
	Action: Sampling sites were revised to provide opportunities for all trips to be contacted. Kirkwood was dropped.

Grant Simonds (IOGA)	To what degree do users feel that the rules of the river are being followed? Have attitudes among float and power boaters changed in recent years?	The original study plan included (and the revised draft retains) questions about perceptions of inconsiderate behaviors, enforcement of rules and regulations, and the behavior of other groups. Answers to these questions will provide insight into etiquette. To the extent possible, we will explore trends in responses to these questions over time. **Action: Analysis will discuss trends, where possible.** **Action: We added an item to Overtion 3.2 inquiring about perceptions about perceptions of the read and the provider and the
	Have the efforts by organized groups to increase awareness helped to increase tolerance?	Action: We added an item to Question 3.2 inquiring about perceptions of change in float and power boater relations.
	How has river management affected float and power business?	The effects of management on businesses is important, but outside the scope of this monitoring study. No Action.
Bonifields	Restrictions on motor use on the upper river present a problem for private boaters	Although this study is not a referendum on management, we recognize that it is difficult for power boaters to indicate how the non-motorized window has affected their experiences. Action: We have added an open-ended question for boaters to indicate what, if anything, they would change in river management. We also added a question about awareness and evaluation of the non-motorized window.
Sandra Mitchell (HCA) and Art Seamans	The River Plan was signed in 1994, not 1999 as indicated in the Study Plan.	The study plan has been revised to indicate that the plan was signed in 1994, and that the NMW was implemented in 1999. Action: Study plan corrected.
	A key ORV is missing from the study plan pertaining to the "premier whitewater powerboating" opportunities on the Snake.	Action: Question 2.2 has been amended to include an item directly addressing this ORV. For clarity and balance, another item was included about float boating ORVS.
	Although the River Plan includes "natural sounds" under the Scenery ORV, this is not appropriate.	Like the reviewer, we understand the Plan's reference to "natural sounds" to refer to river sounds, not "natural quiet." However, this issue does not affect our study. No Action

The Plan's description of the ORV for Fish and Wildlife is misleading – peregrines are rarely seen, but other species not listed are commonly seen. The ROS is misguided – in	The questionnaires ask about wildlife sightings in general, so this distinction is probably not important for our study. However, it should be considered if river management plan revisions are to be made. No Action The River Plan has many different ROS zones with specific levels of different attributes for the
particular in its stipulations about "little evidence of humans." (This is inconsistent with historic ORVs.)	Wild and Scenic sections of the Snake, including designations for historic, management, and scientific areas. The study plan may not have been clear that some of the survey questions were specifically about the non-developed sections of the river – not the developed sites, which have different prescriptions. For example, the river corridor is to be managed for "little evidence of humans," while the developed sites permit much more evidence.
	Action: We have clarified the study plan to indicate where our focus is on the river corridor, rather than the developed sites. Several questions in the surveys have also been clarified to indicate that respondents should consider the corridor, not developed sites, when responding. Other questions ask about developed and historic sites.
Historic structures have been neglected by the FS	The survey includes a question asking boaters for their perceptions of change in historic sites along the river. No Action
The specification that vegetation impact should not exceed 750 sq. ft. at each campsite is unrealistic and unnecessary	The extent of ecological impacts from recreation is more of a biological concern than a concern of visitor experiences, and therefore is largely outside the scope of this study. However, the questionnaires do include items asking boaters for their perceptions of ecological impacts that could adversely affect their experiences, but items do not refer specifically to the 750 sq. ft. limit. <i>No Action</i> .
The study should consider requiring commercial boaters to stop at Cache on sample days.	The study relies on voluntary cooperation from boaters. We were reluctant to take the step of requiring any boaters to stop at locations where they did not already plan to stop. We propose to monitor our compliance and survey numbers during Fall, 2003. If adjustments need to be made to ensure adequate samples, this could be done in 2004. No Action for now

The non-motorized window is the most controversial issue and deserves more attention in the study. There are few questions, and none about whether it accomplishes anything. The study should ask directly how the NMW is working, and how the public feels.	The original study plan included several questions dealing with the NMW, and analysis will be conducted to compare boaters who boat during the NMW with those who boat at other times. However, in the revised study plan we added a question specifically addressing the NMW. Action: We have included an open-ended question asking boaters what, if anything, they would change in river management, and why. Additionally, we have included an open-ended question asking boaters whether they have had experience with the NMW and, if so, their assessment of it.
Salmon River floaters should not be included in the study. Sampling should be done where Snake boaters take-out. Heller Bar is not a good location; Cache Creek is best.	After reviewing use records more closely, we concur that Salmon River boaters should not be included in this study. However, Heller Bar was retained during the secondary season, because use records indicate a substantial amount of use occurs from that site. We propose to contact boaters both as they put-in and take-out (rather than only at take-out), because this is most efficient when we are at sites where both activities occur (e.g., Pittsburg). Many private powerboaters on the north end of the HCNRA are being contacted at Cache Creek as they begin their trip, because it is difficult to know precisely where they will take out, and all must stop at Cache Creek. Action: The sampling design has been substantially revised. See pgs 6-16.
Fishermen and hunters are not similar to summer boaters.	The study is restricted to boaters (many of whom are anglers). Anglers will be identified by their responses to questions about activity participation. Action: We added a question about activity participation.
Steelhead season in October- December will require longer sampling days.	Steelhead anglers launch early and take-out late in the day. This may require adjustments to the study plan. Action: Initially, hours will be extended for sampling from October through December. It may be necessary to have a researcher on site between 3 pm and 9 am the following day, rather than from 8 am to 5 pm on a single day.
When sampling in the north end, it is important to ensure that boaters actually entered the HCNRA.	Researchers generally ask boaters about where they plan to (or did) boat, to screen for HCNRA users. However, in the event that they fail to do so, the contact card includes a place for boaters to indicate which section they boated. No Action

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Comparing the NMW to motorized times works for float boaters, but doesn't work for powerboaters. The study should ask "what acces to the closed section means to them on the days they can experience it" and "how they feel about being denied access on the closed days"	
	Action: Sampling dates and locations have been amended to include surveying power boaters on the Scenic section during the NMW, and a direct question was added to the survey asking about the effect of the NMW on boaters' experiences.
The mail survey has a typo ("for" rather than "four").	Action: Corrected in revisions
Why is "solitude" listed in Quand why is it emphasized throughout? It's not a goal of all users. Users should be able to describe the values they seek. Same concern about "pristine setting."	of the key experiences identified in the River Plan. That is why it (along with the others) is emphasized. If boaters do not experience these qualities, managers have the option to revise the plan or to take additional steps to try to enhance such opportunities. Thus, the original study plan achieved our monitoring goals. However, in response to the reviewer's concerns, the front-end contact cards have been altered to include a list of possible experiences boaters might be seeking (not limited to those stated in the plan). Survey question 1.11 was altered to ask what visitors sought and experienced.
In Q2.8 (about whether the	Action: Contact cards will provide information on experiences visitors seek. We concur with the reviewer's point. As written, we would not be able to know with confidence
river provides diversity) power boaters are in a 'no win' situation. They might disagree with respect to the NMW but agree for other	what "agree" means. However, we continue to believe that boaters' responses will be informative. Analysis will acknowledge this potential problem in interpretation of results. No Action
times.	

	In Q2.4 – how can a power boater answer about the effect of the NMW on experiences – s/he may not know what was missed. Same issue for Q2.8 (does the FS treat different groups equally?).	This issue actually pertains to all questions and to floaters as well as power boaters. When boaters are asked if they agree or disagree, it is assumed that they have knowledge about the topic of the question. This is an inherent limitation of questionnaire studies. However, to a certain extent it can be addressed by analyzing responses of experienced boaters separately from those of novice boaters. Additionally, we have included a direct question about the NMW in the revised survey. This will permit us to identify those respondents who are actually aware of the NMW. Action: Analyses will be performed to determine whether any subgroups (e.g., novices) differ in responses. A direct question has been added about the NMW.
	In Q3.2 (have conditions changed), "fair treatment of different groups" is vague.	We concur with the reviewer. We believe the central issue concerns float boaters and power boaters, as well as commercial and private boaters (as opposed, say, to hunters, families, or other types of groups). Action: We have changed the question to ask specifically if the FS treats float and power boaters fairly. We have also added a question to ask if the FS treats commercial and private boaters
		fairly.
Red Woods	The main concern is the NMW. Why aren't there non float days?	Although we do not ask about non-float days in the questionnaire, we do ask several questions about the NMW in the revised survey. We also ask about fair treatment of float vs. power boaters. We have provided space for boaters to indicate what they would change in river management.
		Action: See amendments to questionnaires described above.
	The NMW hasn't helped the float industry. Financial losses to the power industry are significant.	The effect of river management on economic conditions is important, but outside the scope of this study. No Action.
	Why isn't the regulation about kicker motors on rafts enforced?	The survey includes an item about enforcement of rules and regulations, although this is not a central point of the survey. No Action.
	The campground after the float season is in bad shape.	Other FS monitoring and management activities address campground conditions. The study questions boaters, though in a limited fashion, about their perceptions of the impacts from recreational use.
		No Action

	The last HCNRA study was not "fair and unbiased." This one should be.	The study plan has been reviewed by stakeholders and independent scientists. Researchers will be trained to act professionally and not introduce any bias in interacting with boaters. Sampling protocols are rigorous and designed to ensure unbiased and representative inclusion of all boater groups.
		Action: The study plan has been revised to address the comments and concerns of interested parties.
Hells Canyon Preservation Council	The analysis ought to cover virtually all river issues, not only the most controversial or difficult issues	Monitoring of social conditions and experiences does not include many river issues, which are being addressed through other FS monitoring efforts. However, we have tried to be as comprehensive as possible, reviewing all documents, to include all social aspects of river management.
	Many float boaters have expressed dissatisfaction with the level of motorized use and the perceived absence of rules governing jet boats	No Action. The original study plan included several items pertaining to boaters' perceptions of encounters with other boaters (float and power) and about proper behavior. The revised study plan includes an item asking what, if anything, boaters would like to see changed in river management. Boaters also now have the opportunity to indicate whether and how the non-motorized window has affected their experiences.
		Action: A survey question has been added to inquire what, if anything boaters would like to see changed in river management, and why.
	River users are often unable to give their views to managers because they do not know how to contact them	River users will be randomly sampled for this study. The on-site surveyors will have a handout of "frequently asked questions" which will contain information about to contact the study team or the Forest Service. Action: Information sheet will be given to anyone who expresses an interest for more information.
	Jet boat operation should be controlled in various ways (e.g., speed, re-run of rapids)	As noted above, this effort is not a referendum on management. However, revisions to the study plan will allow boaters to indicate what changes they would like to see made in management. Action: A survey question has been added to inquire what, if anything boaters would like to see
	Elimination of jet boat drop camps is essential. Some boaters leave gear at camps to	changed in river management, and why. The issue of drop camps is not addressed in this study. However, questions ask whether boaters noticed campsites that were occupied by others or competition for campsites. Those who noticed such situations are asked to evaluate the severity of the problem.
	prevent others from taking those sites. There are too many jet boat launches to enable a quality non-motorized experience outside the NMW	No Action The original study plan included questions about the number of encounters with different types of boaters, questions about crowding, and evaluation of numbers of encounters. Such questions should permit managers to evaluate the extent to which boaters perceive problems related to use levels. No Action.

	Campsite crowding and competition are problems	The original study plan included questions about whether boaters perceived problems associated with campsite competition. It also included questions about camping near other groups.
		No Action
	Beaches are being lost	The original study plan included a question about whether long-time boaters perceive various conditions – including beaches – to be improving or deteriorating. However, the issue of beach loss is being addressed in more depth through other monitoring efforts. No Action.
Peer Review #1	The study might consider obtaining more information on experiences	The scope of the monitoring study, and the need for objective, representative data, restricted our approach and prevents us from exploring the subjective dimensions of experiences in more depth. The questionnaires are about as long as can realistically be expected of river users. No Action
Peer Review #2	There may be different response rates among different types of user groups	This is likely to be the case – Often novices or casual visitors are less likely to respond to mail surveys than more dedicated boaters. Our analysis will explore any non-response issues within each of the four user groups separately. No Action
	Response scales should probably have negative numbers on the left side and positive numbers on the right side	We have seen both types of questions be used successfully. Action: Scales have been revised per the reviewer's suggestion.