United States Department of the Interior

TAKE PRIDE IN AMERICA

FEB 16 2011

Mr. Steven Richardson
Van Ness Feldman
1050 Thomas Jefferson Street, N.W.
Washington, D.C. 20007-3877

Subject: Request for Correction in the Klamath Non Use Valuation Survey,
OMB Control Number 1090-0010

Dear Mr. Richardson:

This letter is in response to your December 17, 2010, request on behalf of PacifiCorp for Correction of Information under the Information Quality Act (IQA). Thank you for your submission raising concerns with the factual correctness of some information contained in the planned Klamath Non Use Valuation Survey.

The Department of the Interior is committed to following guidelines published under the IQA. In accordance with these guidelines, we have reviewed your submission and have made certain changes to the survey in order to address your concerns. The specific changes are detailed in the attachment to this letter. The revised survey is also attached. We anticipate publishing a Federal Register Notice to announce the revision, with a 30-day comment period.

We hope that these modifications fully satisfy your concerns. If you still have concerns and wish to appeal our decision, an appeal must be submitted within 21 calendar days to:

Office of the Chief Information Officer
Attention: Information Quality Correction Request Processing
U.S. Department of the Interior
1849 C Street, N.W., Mail Stop 7447-MIB
Washington, D.C. 20240

Sincerely,

Benjamin Simon

Attachment 1. Response to Van Ness Feldman Comments
Attachment 2. Revised Klamath Non Use Valuation Survey

Attachment 1. Response to Van Ness Feldman (VNF) Comments

A number of the issues raised in the VNF comments are empirical issues. VNF is speculating about how people will interpret different parts of the survey and the effect this will have on whether they vote for or against the plan. The survey contains a number of debriefing questions that follow the questions asking individuals to choose between plans to identify some of the possible motivations respondents might have for their responses. We will not know how people will vote and how they will answer the debriefing questions until we conduct the pilot test. The pilot test will provide actual data that will help everyone understand how respondents are reacting to the choices.

Each comment is followed by a response. The numbers on the comments reflect the Interior Department's identification of the issues raised in the comments. The survey page numbers cited in the responses pertain to page numbers in the updated version of the survey.

General comments on sources of potential bias

Comment 1. Making the science supporting the potential benefits of dam removal and fish restoration appear more certain and portraying that the scientific community is in greater accord about the potential benefits of these actions than can be objectively supported. Under the so-called "Action Plans" in the Draft NVS, there are substantial uncertainties over the timeline and effectiveness of the proposed actions and their ability to achieve restoration goals.

Response: Due to space considerations and burden to the public, the survey cannot present all of the evidence regarding the science supporting dam removal. In addition, the public often has difficulty understanding probability and uncertainty. As such, different versions of the survey were developed that represent a range of outcomes to address these uncertainties. This range of outcomes is based on currently available information regarding potential effects of the action alternative on fish populations. The final report will compare willingness-to-pay (WTP) for hypothetical population changes of different sizes. The hypothetical change that best matches available scientific evidence at that time will be used to characterize effects of dam removal and Klamath Basin Restoration Agreement (KBRA) on non-use values.

Comment 2. Implying that, under a "No Action" alternative, no active or on-going management of the river and the fish communities is currently underway. In fact, there are significant efforts now being implemented by local communities and governments, landowners, Tribes the states of Oregon and California, and the Federal government support fisheries restoration. The NVS does not make clear that, even under the "No Action Plan", resource management and restoration actions outside the Agreement have been occurring and would still occur.

Response: The purpose of the survey is not to evaluate the "No Action" alternative. The goal of the survey is to evaluate the public's maximum willingness to pay (WTP) for the incremental environmental improvements compared to status quo. The following text was added to page 6 of the survey instrument: "Although past and current efforts to improve conditions by governments, tribes, local communities and landowners have been helpful, more is needed to significantly increase wild fish populations in the basin."

Comment 3. Not including descriptions of several lost uses that would occur with potential dam removal and fish restoration (such as, temporary losses in fishing opportunities, losses in whitewater rafting opportunities, and changes in "lakefront" properties). This signals to respondents that they are not supposed to care about these impacts or that such losses are insignificant. As a result, it is unclear whether the respondent is to assume that these various groups will be compensated for their losses as part of the project costs.

Response: Revisions to the text of the survey pertaining to lost uses use include the following:

- *Page 3: "The Klamath River Basin is home to farms, fisheries (commercial, recreational and tribal), dams that produce hydroelectric power, and endangered fish species. Its rivers, lakes, reservoirs and wildlife refuges also support many different kinds of recreation."*

- *Page 5: "Recreation and Tourism. The basin supports a wide range of water-based recreation activities, including fishing, boating, and swimming. It contains blue ribbon trout streams, highly rated whitewater rapids for rafting, a well-regarded reservoir fishery for yellow perch, and bird watching and waterfowl hunting opportunities. Salmon from the basin also support recreational fishing in the Pacific Ocean."*

- *Page 14: "The agreement would also ... eliminate recreational activities supported by the dams, about 100 homes now located near the shores of the reservoirs would lose their lakefront view."*

Comment 4. PacifiCorp believes the hypothetical "Actions" scenarios posed in the Draft NVS portray to potential respondents a more optimistic and more certain future than can be supported by available information. As such, PacifiCorp' is concerned that the survey instrument as currently written sets up the likelihood of biased results that would produce a distorted and ultimately unreliable valuation.

Response: Different versions of the survey were developed that present a range of outcomes to address uncertainty. The final report will compare WTP for different levels of improvement. See response to Comment 1.

Comment 5. PacifiCorp also notes that it is not clear who will be receiving this survey and whether the dollar amounts reflect the Federal cost share or some combination of Federal, state and power payments. Will different classes of respondents (such as, Klamath Basin residents, out-of-basin residents, power customers) receive a different version?

Response: As required by OMB, the supporting statement includes considerable detail on the sampling frame. All classes of respondents will receive the same survey (including the same variations in the WTP scenarios). The allocation of costs of potential actions is not relevant for determining WTP. The survey is measuring the individual's maximum WTP for the incremental environmental improvement, which may be larger or smaller than the amount it would actually cost.

Comment 6. Given the length and complexity of this survey, and the fact that it will be administered to the general national population, PacifiCorp' expects that the survey will have a very low response rate and likely be subject to sample selection bias based upon individual motivations to complete such a survey. For these reasons, the NVS needs to be carefully supported by clear data quality

objectives and quality assurance measures, including proposed actions to be taken regarding the survey if the data fail to meet the quality objectives.

Response: As required by OMB, the supporting statement includes considerable detail on measures to minimize and identify non-response bias. The implementation plan for the survey includes extensive measures to minimize non-response bias and calls for a follow-up study to help identify the likelihood that the responses suffer from non-response bias. No conclusions can be drawn about response rates until the survey has been administered. Past experience with these types of surveys suggests that a sufficient number of responses will be received to conduct appropriate statistical analysis.

Specific Comments on Draft Survey

Comment 7. Page 3 of the Draft NVS provides a "Burden estimate statement" and states that "Public reporting for this form is estimated to average 30 minutes per response". This estimate seems low for considered responses given the length of the survey and the complexity of the issues involved.

Response: Focus groups, cognitive interviews, and past experience indicate that 30 minutes is a reasonable estimate.

Comment 8. Page 4 of the Draft NVS states "The Klamath River Basin is home to endangered fish species, commercially important salmon, agriculture, and dams that produce hydroelectric power". The Draft NVS also should include in this list "whitewater rafting and boating opportunities, and river and reservoir recreational fishing".

Response: The text has been modified on page 3 as follows: "The Klamath River Basin is home to farms, fisheries (commercial, recreational and tribal), dams that produce hydroelectric power, and endangered fish species. Its river, lakes, reservoirs and wildlife refuges also support many different kinds of recreation."

Comment 9. Page 6 of the Draft NVS summarizes "Human Uses of the Klamath River Basin Water". The Draft NVS also should include summaries of mining, wildlife refuges, and timber production among these uses.

Response: Refuges are already referenced in the survey in several places:

- *Page 3: "Its rivers, lakes, reservoirs and wildlife refuges also support many different kinds of recreation.".*
- *Page 4: "Six National Wildlife Refuges in the basin provide stopover habitat for over 1 million migrating birds each year.".*

It is not clear that timber production uses Klamath River water. Mining uses of Klamath River water are minor. Mining and timber production are mentioned as sources of water quality problems on page 6: "Some human activities in the basin, such as logging, farming, mining, and road building also affect water quality."

Comment 10. Page 7 of the Draft NVS states "They spend most of their lives in the Pacific Ocean, but they return to rivers and streams to spawn" (referring to Chinook salmon and steel head trout). The word "most" in this sentence should be replaced with "some" since steel head spend a very short time in the ocean compared to freshwater while Chinook are just the opposite.

Response: The text (page 6) has been revised to accommodate this comment.

Comment 11. Page 7 of the Draft NVS states "At one time, between 600,000 and 1 million of these fish returned to the basin each year." The Draft NVS should clarify whether these numbers only include wild fish or both wild and hatchery fish. Hatchery plantings in the Klamath River basin started in earnest in the early 1900s and the proposed project is intended to reduce or eliminate the need for large-scale hatchery fish production. Without this clarity, the public may be confused about the number and type of fish that may be expected to return following implementation of the project.

Response: We are not aware of large scale hatchery supplementation in the Klamath Basin until the two mitigation hatcheries came on line in the 1960s. On pages 16-17 we have changed the text to clarify that the historical numbers represent wild fish.

Comment 12. Page 7 of the Draft NVS states "The reasons for declining fish populations include the following". This sentence should be revised to state "The reasons for declining fish populations are provided below in no particular order in regards to their effect on fish populations".

Response: The text has been revised on page 6 as follows: "The reasons for declining fish populations include the following (not in order of importance):"

Comment 13. Page 7 of the Draft NVS states "Before the dams were built, the fish migrated into streams in both the pink and blue areas shown on the map on the next page". Regarding the map shown on page 8, it should be made clear that the land uses and habitat conditions in the "Historical range" (shown on the map as the area in blue upstream of Iron Gate dam) are substantially changed from historic conditions. Therefore, at present, the area shown in blue is not necessarily suitable or usable habitat for Chinook salmon and steel head. Also, to be correct and consistent, areas of the basin upstream of Lewiston Dam and Trinity Dam on the Trinity River should be colored in blue.

Response: While habitat conditions have degraded since construction of the hydro project, the Federal Energy Regulatory Commission (FERC) proceedings found that these habitats could still support anadromous fish, which is the reason fish passage was included in the license agreement under FERC. Conditions in the Trinity do not appear to be relevant as the Trinity is excluded from the KBRA. Finally, the maps are meant to provide respondents with a general sense of historical range.

Comment 14. The "reasons for declining fish populations" summarized on page 7 of the Draft NVS also should include commercial canneries (in the early part of the previous century) that severely impacted fish populations, and habitat degradation due to timber harvest, mining, and road building. The legacy effects of these previous practices continue to have implications today.

Response: The text of the survey on page 6 has been revised. The changes are as follows:

- *"**Water Quality.** When water flows are low, the water in the river basin warms up. Algae that grow in the warm water can harm or kill fish. Different human activities in the basin, including logging, agriculture, mining and road building, also affect water quality. Despite efforts to better manage these human uses, water quality is still a problem for fish."*

- *"**Overfishing.** In the past, poor management of commercial ocean and river fishing in the Klamath area contributed to the decline in fish numbers. Currently fisheries are better managed to help protect weak fish populations."*

Comment 15. On page 7, under "Overfishing", the Draft NVS states "In recent years, these activities have been much more carefully managed." This line should be deleted, since it implies that harvest is no longer a problem and has been fully addressed, which is not the case. The first sentence on page 9 of the Draft NVS should be revised to state "Some fish in the basin are at risk of becoming extinct because of water and habitat problems".

Response: The text of the survey on page 6 has been revised as follows:

- *"**Overfishing.** In the past, poor management of commercial ocean and river fishing in the Klamath area contributed to the decline in fish numbers. Currently fisheries are better managed to help protect weak fish populations."*

- *The first sentence on page 8 has been revised as requested.*

Comment 16. On page 9, the "Main Threats" listed under coho salmon includes the statement "Fish raised in hatcheries compete for food and spread disease to wild coho salmon." This statement requires clarification, since fish from the Iron Gate Hatchery are relatively disease-free. Also, the "Main Threats" listed under Coho salmon should include factors mentioned in comments above, including overfishing, timber harvest, road building, and mining.

Response: The Department agrees that hatchery fish are relatively disease free upon release from the facility. The text has been revised on page 8 as follows: "Fish raised in hatcheries compete for food and habitat with wild coho salmon." Water quality is cited as a "main threat" – with "logging, farming, mining and road building" identified elsewhere (page 6) as some of the factors affecting water quality. Also, while historical overfishing and large-scale cannery production may be affecting the current status of coho, it is no longer accurate to characterize overfishing as a "main threat." Other than modest tribal harvest, there has not been a fishery for coho since the 1997 listing. Too much detail in the table will overwhelm the respondents.

Comment 17. Page 11 of the Draft NVS states "In 2006, commercial salmon harvests off the U.S. Pacific Northwest Coast were cut by 90%". The Draft NVS then states 'The main reason was a lack of fish from the Klamath River, due in part to dams and low water flows". This statement is an opinion and yet it is portrayed as an undisputed fact, which is misleading to the reader. There are numerous factors that affect anadromous returns in both the freshwater and ocean environments. The ocean fishery is a weak stock fishery; in 2006, ocean fishing was curtailed because of projected low Klamath River runs. The low returns in 2006 were due, in part, to the 2002 fish kill that is mentioned in the prior bullet. The 2002 fish kill occurred in the lower Klamath River and adversely affected the 2006 year-class of returning salmon. Subsequent studies of the 2002 fish kill did not identify PacifiCorp's hydroelectric dams as a causative factor in that event. In more recent years, ocean fishing was curtailed because of low Sacramento River runs.

Response: Although the fish kill in 2002 was a disaster, natural escapement to the basin was above average. There was some delayed mortality associated with the disease outbreak and there may also

have been some impacts to embryonic development; however it is highly unlikely that the 2002 kill can be related to fishery restrictions in 2006. There are too many other factors that influenced production during this time that likely were responsible. Characterizing dams and low flows as a factor contributing to low numbers of salmon is well documented, including the National Research Council's 2004 report.

Comment 18. Page 11 of the Draft NVS states "But changing the dams to allow fish to go around them would be more expensive than removing the dams and replacing their electric power". This statement is an opinion and cannot be supported since the cost of dam removal is not yet known and no economic analysis has been completed comparing the costs of dam removal, necessary mitigation, and the provision of replacement power against an alternative of retaining the dams and installing and operating required upgrades that would be necessary under a new project license.

Response: FERC has found that the costs associated with modification would exceed the costs of dam removal and replacing the lost hydropower. PacifiCorp filings with the Oregon Public Utility Commission also indicate this. In addition, during the focus groups a number of participants asked why there was no mention of fish ladders. They thought that fish ladders would be a middle ground between doing nothing and removing the dams. The text on page 10 was revised to read as follows: "...It was estimated that changing the dams to allow fish to go around them would be more expensive than removing the dams and replacing their electric power..."

Comment 19. On page 12, under "Dam Removal", the Draft NVS should add the sentence "The costs associated with this action are estimated at less than $450 million."

Response: The purpose of the text on page 11 is to list the main elements of the agreement, not the cost. The costs of the other elements of the agreement are also not included.

Comment 20. On page 12, under "Fish Restoration", the Draft NVS states "The agreement does NOT define the exact projects or exact amount of money that will be spent on fish restoration." This statement is incorrect; the Klamath Basin Restoration Agreement (KBRA) contains a complete section on costs. The total cost of KBRA (i.e., $970,452,000 in 2007 dollars) and components considered in these costs are available to be provided as information for the NVS.

Response: The sentence was removed. The KBRA defines a number of actions, some more specifically than others. The actual restoration projects are not outlined in the agreement. The sentence was originally included to motivate the different outcomes between the two action plans presented. However, text has been added later in the survey to clarify this point, so this sentence is no longer needed.

Comment 21. On page 12, the first sentence under "Water Sharing Agreement" should be revised to state "To protect fish, the agreement would permanently set limits on the amount of irrigation water that can be taken from Upper Klamath Lake and how much would be released to the river".

Response: We agree with the second clause of this comment. However, upon reflection, we eliminated the phrase "To protect fish.". The agreements were not developed to provide flows to protect fish as a first priority. The evaluation of the resulting environmental flows answered the question as to whether or not those flows would improve conditions for fish rather than how much flow would be needed to protect fish.

Comment 22. On page 12, the third sentence under "Water Sharing Agreement" should be revised to state "~~farm irrigators~~ Parties have agreed to these conditions because they define a specific and permanent schedule for annual water deliveries to farmers and releases to the river."

Response: The text was revised as requested.

Comment 23. On page 12, the fourth sentence under "Water Sharing Agreement" should be revised to state "Each year, the amount of water available for irrigation and the river would depend directly on the amount of rain and snowfall in the basin."

Response: We do not agree with this comment. The amount of environmental water is determined after irrigation deliveries are provided and is to be managed in a sharing between the lake and the river. However, the sentence identified in the comment was deleted.

Comment 24. On page 13, at the end of the second paragraph beginning with "Under this agreement", the Draft NVS should add the sentence "The total cost of the project is expected to be approximately $1.4 billion."

Response: For the reasons stated in our response to Comment 5, the potential cost of the KBRA is not relevant to the information presented in a WTP survey.

Comment 25. On page 13, the Draft NVS indicates that one of the sources of funding for the Agreement's activities would be "higher electricity bills for Oregon and California customers of PacifiCorp". PacifiCorp's Oregon and California customers would fund dam removal surcharges, which are necessary for the agreements to proceed. However, PacifiCorp's customers throughout its six-state service territory (also including Washington, Idaho, Utah, and Wyoming) would share in the cost of replacing the power from the Klamath dams following their potential removal. This is not considered in this section.

Response: To the knowledge of the Department, PacifiCorp is not seeking rate increases in Washington, Idaho, Utah, and Wyoming.

Comment 26. On page 14 of the Draft NVS, the first bullet on the page should be revised to state the agreement would "increase the historic range of wild salmon and trout throughout the basin and have the greatest certainty of increasing the number of wild fish migrating to ocean waters". PacifiCorp recommends not referring to the hatchery in this statement since hatchery production is going to continue eight years after dam removal by PacifiCorp and it is yet unknown whether fish population response following potential dam removal will reduce the need for ongoing hatchery operations.

Response: The assumption regarding the reduced need for ongoing hatchery operations is not unreasonable. No changes were made to the survey instrument.

Comment 27. On page 14 of the Draft NVS, the third bullet on the page should be revised to state the agreement would "improve water quality in the Klamath River, by increasing water oxygen levels and reducing algae blooms that currently occur in the Project reservoirs". Reference in the original wording of this bullet related to Upper Klamath Lake is not appropriate since dam removal will not improve water quality in Upper Klamath Lake. Reference in the original wording of this bullet related

to "low water oxygen levels" also is not appropriate since much of the river has acceptable levels of DO. In fact, most of the severe DO problems occur upstream of the dams slated for removal. Reference to "toxic blue-green algae blooms" is not appropriate unless it is made clear that toxicity relates only to certain forms of blue-green algae, and that toxins are present only during some months of the year (i.e., summer to early fall) and vary appreciably by locations within the reservoirs.

Response: The text is discussing the impacts of both removing the dams and the KBRA. It is anticipated that habitat improvements undertaken as part of the KBRA will improve the water quality in Upper Klamath Lake. The bullets are meant to provide succinct summaries of the main impacts. More detailed discussions of DO and toxic algae problems would be confusing to the respondents and require too much text. The text has been reworded as follows:

- *Page 14: "...improve water quality by increasing water oxygen levels in Upper Klamath Lake and the Klamath River, and by eliminating the reservoirs as a source of algal blooms in the summer";*

Comment 28. On page 14 of the Draft NVS, three bullets include the wording "costs millions of dollars". These bullets should begin with more accurate wording like "costs of tens of millions of dollars" or "costs of hundreds of millions of dollars". This more-accurate wording would alleviate the potential that respondents will assume that these costs are much less than they are expected to be.

Response: The wording has been adjusted as follows:"... costs many millions of dollars."

Comment 29. On page 14, under "Weighing the Impacts of Implementing the Agreement", the text should disclose additional information of importance to respondent understanding and context, including; (1) the anticipated timeframe of restoring fish populations; (2) the anticipated effects on the commercial and recreational fisheries, and the timeframe of these effects; and (3) the anticipated effects on whitewater rafting.

Response: Given the need to keep the survey as short as possible, not every potential impact can be discussed. The survey already indicates that fish restoration – the most important element – is a long-term proposition. The graphs used to help describe the Action and No Action plans show a long time frame. Earlier in the survey, we describe the many uses of the Klamath River Basin, but for space reasons we cannot repeat all this detail. Finally, removing the dams may affect some types of recreation positively and other types negatively. We do not attempt to discuss (nor do we know at this point) every possible recreational impact. The following text has been included on page 14:

- *"...eliminate recreational activities supported by the dams; about 100 homes now located near the shores of the reservoirs would lose their lakefront view."*

Comment 30. On page 17, the Draft NVS summarizes the "No Action Plan" scenario that respondents are asked to evaluate. The overall validity of the design and results of the NVS is fundamentally tied to the validity of the scenario that respondents are asked to value. PacifiCorp questions the validity of this No Action scenario. For example. PacifiCorp assumes that many on-going and future management activities aimed at water quality improvements (e.g., TMDLs) and fish conservation (e.g., Recovery Plans) would still occur under a "No Action" scenario. The "No Action Plan" scenario in the Draft NVS is confusing in that it implies to the respondent that there would be no

management or restoration actions whatsoever under this scenario. The "No Action Plan" scenario needs to be clarified to indicate that this scenario assumes no action with regard to the February 2010 Agreement. Therefore, even under the "No Action Plan" resource management and restoration actions outside the Agreement would still occur.

Response: The text throughout the survey clearly indicates that the Action Plan pertains to KBRA and dam removal. To better characterize No Action, we have added reference to ongoing restoration efforts on page 6 of the survey: "Although past and current efforts to improve conditions by governments, tribes, communities and landowners have been helpful, more is needed to significantly increase wild fish populations in the basin." We also characterize No Action on pages 17 and 21 as involving "No Additional Fish Restoration" rather than "No Fish Restoration."

Respondents are not being asked to evaluate the "No Action" scenario. They are being asked to evaluate changes from "No Action", with changes defined by the hypothetical scenarios identified. The most straightforward way to measure maximum WTP for improvements for fish is to ask people how much extra they would pay to get those improvements, so the survey elicits the incremental WTP for the improvement provided by the Action Plan relative to No Action. It would be confusing to ask if people will pay something for No Action and then pay even more for Action.

Comment 31. On page 17, the Draft NVS states "Scientists expect that by 2060, there would be 30% fewer wild fish than today." PacifiCorp is not aware of any analysis that supports this statement and requests that this analysis be made available. Upon review of such analysis. PacifiCorp reserves the right to supplement our comments on the NVS. To the extent that such analysis is unavailable, incomplete, or indeterminate, the Draft NVS assumptions regarding fish returns in 2060 should be modified accordingly. PacifiCorp notes that millions of dollars are being spent each year to improve habitat in the lower river. This statement implies that, regardless of these actions, wild fish numbers will continue to decline. PacifiCorp does not believe this is an appropriate position for this survey to assume.

Response: The survey has been revised to characterize the no action plan in terms of "Low Numbers of Wild Chinook Salmon and Steelhead".

Comment 32. On page 17, the Draft NVS states that, under the No Action Plan, "Suckers would stay at VERY HIGH RISK (more than 50% chance of extinction by 2060)" and "Coho salmon would stay at HIGH RISK (25%-50% chance of extinction by 2060). As indicated in comments above, PacifiCorp does not believe it is appropriate for the Draft NVS to make the assumption that resource management and restoration actions outside the Agreement will have such little effectiveness in addressing extinction risks.

Response: We are utilizing several hypothetical scenarios regarding the change in risk to suckers and coho under No Action and Action. We believe that these hypothetical scenarios are scientifically reasonable for establishing a range.

Comment 33. On page 18, the Draft NVS states "The number of wild fish returning to the Klamath River each year would increase after the dams are removed in 2020." This is not consistent with the analysis presented to date by the Biological Subgroup for the Secretarial Determination. The Biological Subgroup concludes that there would be intensive short term sediment and dissolved

oxygen impacts to the river that will lead to an initial reduction in wild fish. Also, do the increasing fish numbers shown in the graph on page 18 assume KBRA and TMDL actions are fully implemented and effective? If so, such an assumption is inappropriate since the Biological Subgroup has indicated that KBRA and TMDL actions could take several decades to be implemented and effective.

Response: The phrase "each year" has been deleted. The survey indicates that restoration will occur over a number of years. The survey also notes the short-term increases in sediment associated with dam removal (page 14). To be consistent with the studies being done the Biological Subgroup, the increasing fish numbers are intended to reflect full implementation of KBRA but not TMDL actions. As indicated in our response to Comment 1, our final report will compare WTP for hypothetical population changes of different sizes. The hypothetical change that best matches the Biological Subgroup's best judgment at that time will be used to characterize effects of dam removal and KBRA on non-use values.

Comment 34. On page 18, the Draft NVS states "Assume that for your household (and similar households in your area) the plan would cost you an additional $48 per year for the next 20 years (beginning in 2011)." The developers of this NVS should consider whether respondents will think more about whether or not this price is "fair" in their minds, rather than figuring out their actual willingness to pay. It might help to use different versions of the survey that make it clear to respondents that they are being presented with the "right" number given their status. For example, the version that is sent to households who reside outside of the region may conclude it "fair" that their dollar figure is lower than the dollar figure that residents of the regions (that include PacifiCorp customers and others more directly affected by the Agreement) would expect to see.

Response: In keeping with appropriate methodology for stated preference surveys, this survey will systematically vary the hypothetical payment among respondents in order to assist in identifying maximum WTP. It is not necessary to ascribe motives to individuals' reasons for their stated WTP. This applies regardless of where the individual responding is physically located. The survey includes a number of follow-up questions to identify respondents who may be rejecting the scenario.

Comment 35. The Draft NVS should offer some explanation of how the $48 dollars is derived for the survey. Without such explanation, some respondents might do some potentially-inappropriate math and reject the scenario because they do not find it credible. For example, it would be easy for the respondent to assume there are 115 million households in the U.S. that would each pay $48, and then incorrectly conclude that the cost of the project is $5.5 billion.

Response: It is not necessary for the survey to explain how the $48 household cost was derived. In fact, because the point of the survey is to elicit individuals' maximum WTP, we do not want to bias their answers by giving them information on what cost might be "reasonable" or "likely." However, the selection of this amount was informed by the focus groups, cognitive interviews, and extensive professional experience of those developing the survey. This amount will also be systematically varied across the surveys. Providing cost information will potentially bias the responses. One important purpose for the pilot test is to assess whether the range of dollar amounts needs to be adjusted. This amount could potentially be adjusted after the pilot test.

Comment 36. On page 18, under the "Added Cost to Your Household" section, the Draft NVS indicates that one of the sources of funding for the plan would be "higher power bills for Oregon and California PacifiCorp customers". However, as described above, customers in all of PacifiCorp's six -

state territory would see higher power bills to fund the provision of replacement power lost from the Klamath dams.

Response: To the knowledge of the Department, PacifiCorp is not seeking rate increases across the six-state region it serves. However, the text was revised to remove the bullets listing the sources of funding.

Comment 37. On page 18, the Draft NVS indicates that another source of funding for the "plan" would be "state taxes from Oregon and California residents". However, regarding use of state taxes from Oregon residents to help fund the "plan," the laws of Oregon prohibit such a result. Regarding assumed use of state taxes from California residents, that action has not been authorized under California law and no funds have been appropriated for that purpose. By contrast, Oregon has approved a customer surcharge to provide funds for dam removal and the California General Assembly has approved a measure that could result in the issuance of general obligation bonds to cover some dam removal costs, if the voters concur in 2012.

Response: The text on the sources of funds has been removed from page 18.

Comment 38. On page 22, the Draft NVS describes Action Plan B. Many of the comments above on Action Plan A also apply to Action Plan B.

Response: No response necessary.

Comment 39. On page 22, the Draft NVS should clarify what constitutes the difference between Action Plan A and Action Plan B in terms of the money that would be expended for restoration projects and actions.

Response: As stated in our response to Comment 35, it is not the cost of restoration actions that is important, but how much individuals are willing to pay for environmental improvements. Plans A and B offer different levels of environmental improvements. The survey simply says that under Plan B a different set of restoration activities will be undertaken.

Comment 40. On page 27, the lead-in to question Q25 asks the respondent to suppose that "100% more salmon and steel head trout returned to the Klamath River each year than today". As indicated in previous comments above, PacifiCorp questions the basis for the assumption of "100% more salmon and steelhead" returning each year under the Action Plans. Also, if this number is supportable, PacifiCorp recommends that the use of "100% more" here be replaced with "twice as many". The use of "100% more" is subject to misinterpretation by the respondent. For example, the respondent may incorrectly assume that the "100% more" means that current returns are "0%", or wonder "how can there be more than 100%"?

Response: As stated above, the scenarios are hypothetical, but representative of the range of reasonable outcomes. The Department believes that individuals can readily understand the terminology of "100%."

Comment 41. PacifiCorp believes that it is important for the NVS to provide context, and even frame certain survey questions, regarding these uncertainties. These uncertainties include how long it will take for the actions associated with the Agreement (and assumed in the "Action Plan" scenarios) to be implemented and fully effective, and the expected decades-long timelines for achieving enhancement and restoration objectives, including expected water quality improvements.

PacifiCorp believes these timeframe and uncertainty issues are critical to achieving non-biased survey results - that inclusion of uncertainty is necessary for a valid survey. By not including and fully explaining these uncertainties, the NVS is likely to produce a distorted and ultimately unreliable value for willingness to pay.

Response: This comment has been addressed above in the responses to comments 12, 13, 17, and 26.

Klamath Nonuse Valuation Survey

OMB Control Number 1090-0010

This document includes

- the survey instrument,
- the map that will be inserted into the instrument,
- the alternative order listing the human uses of the Klamath River Basin, and
- the experimental design for questions 14 and 16.

Restoring a U.S. River Basin: What Is Your Opinion?

Across the United States, many river systems are under stress from population growth, pollution, and competing demands for water. These stressors often harm the rivers' fish and wildlife populations, as well as the people who value these river resources. Addressing these problems is an important local and national issue, but sometimes the solutions require big changes that can be costly.

This survey focuses on one river system in particular: the **Klamath River Basin**. The federal government is considering different plans for restoring this river basin and its fish populations. These plans would improve how water in the river is managed but they would also cost U.S. households more money. Understanding the views of households like yours will help the government choose the best option.

Upper Klamath Basin (Oregon)

Iron Gate Dam on the Klamath River

Klamath River Estuary at the Pacific Ocean (California)

Your participation in this survey is voluntary. Your answers will be kept anonymous. They will not be saved or stored in a way that can be associated with your name or address.

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Cover photos courtesy of the U.S. Fish and Wildlife Service (FWS)

Page 8 illustrations by Joseph R. Tomelleri (Lost River sucker and shortnose sucker) and Timothy Knepp (coho salmon) courtesy of FWS

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About the Survey

In this survey, we will first describe the Klamath River Basin and the problems it is facing. We will then describe possible plans for changing (or not changing) how the Klamath River Basin is managed. We will describe how these plans would affect the basin and what the added cost to your household would be. You will be asked how you would vote on the different plans. Finally, we will ask for your opinions on some of the topics covered in the survey and some information about your household.

Why we need you to fill out this survey

- If one of these plans goes forward, the federal government and the states of California and Oregon will be involved in restoring the Klamath River Basin and its fish populations.
- The Klamath River Basin is one of the 50 largest river basins in the United States.
- As with many rivers, the water of the Klamath River Basin is used by many people for many different activities. Hard choices must be made about how to use the water.
- The Klamath River Basin is home to endangered fish species, commercially important salmon, agriculture, and dams that produce hydroelectric power.

In today's economic times, resources are limited. Federal, state, and local governments face difficult decisions about how to best manage, protect, and restore rivers. The information collected from this survey will help these decision makers know what you would like to see happen. This is your chance to provide input on this important decision.

Introduction to the Klamath River Basin

A river basin is the area of land where water drains into a specific river. The Klamath River Basin is shown on the map included with this survey.

Geography

- The basin starts in the mountains of southern Oregon. The streams flow into Upper Klamath Lake, the largest natural lake in Oregon.
- The Klamath River flows from the lake, through Oregon and northern California, and into the Pacific Ocean.
- The basin occupies over 10 million acres. It is twice the size of Massachusetts.

People

- About 125,000 people live in the basin. Klamath Falls, Oregon, is the largest city, with a population of roughly 20,000.
- The basin is home to about 14,000 members of Indian tribes, including the Klamath tribes in Oregon and the Yurok, Karuk, Hoopa Valley, Quartz Valley and Resighini tribes in California.

Fish and Other Wildlife

- The basin contains over 80 fish species, including many different types of salmon, trout, and suckers.
- It also provides stopover habitat for over 1 million migratory birds each year.

Q1. Before you started this survey, had you ever heard of the Klamath River Basin?

- ❑ Yes
- ❑ No
- ❑ I don't know

Q2. Have you ever visited the Klamath River Basin?

- ❑ Yes
- ❑ No
- ❑ I don't know

Human Uses of the Klamath River Basin Water

People use the water in the basin in many ways. Like other big rivers, it is difficult to balance how much water should go to each different activity. The following are some of the main uses:

- **Farmland Irrigation.** Since 1905, the U.S. Bureau of Reclamation has provided water for farms in the basin. It currently supplies water to about 200,000 acres of farmland (1,400 farms).
- **Hydroelectric Power.** From 1909 to 1962, several dams were built on the Klamath River near the Oregon-California border. They are operated by the power company PacifiCorp (also known as Pacific Power). Together, these dams can produce enough electricity to power about 70,000 homes.
- **Commercial Fishing.** The Klamath River is an important source of salmon for commercial fishermen in both the river and the Pacific Ocean. For most of the twentieth century, the Klamath River was the third largest producer of salmon on the U.S. West Coast.
- **Recreation and Tourism.** The basin supports a wide range of water-based recreation activities, including fishing, boating, and swimming. It contains blue ribbon trout streams and highly rated whitewater rapids for rafting. Salmon from the basin also support recreational fishing in the Pacific Ocean.
- **Tribal Cultural Practices.** For thousands of years, several Indian tribes have lived in the basin. Some of these tribes, including the Klamath, Yurok, Karuk, and Hoopa have relied on the river's salmon and other fish for food, for cultural and ceremonial activities, and for their economic well-being.

Q3. People use rivers for many different purposes. We are interested in how you use rivers. From the list below, please check off all the ways that you use rivers in your area.

- ❑ Recreational boating or rafting
- ❑ Transportation
- ❑ Swimming
- ❑ Near-shore recreation (such as hiking, picnicking, or bird watching)
- ❑ Recreational fishing
- ❑ Commercial fishing
- ❑ Irrigating farmland
- ❑ Drinking water
- ❑ Spiritual or ceremonial purposes
- ❑ My electric power comes from a hydroelectric-power dam
- ❑ Other: _____
- ❑ None of the above

Declining Fish Populations in the Klamath River Basin

Restoring wild fish populations in the Klamath River Basin is one of the main goals of the plans being considered by the government. This page and the next page describe problems faced by fish in the basin.

Chinook salmon and steelhead trout are two important fish found in the basin. They spend most of their lives in the Pacific Ocean, but they return to rivers and streams to spawn.

Their numbers have declined significantly since the early 1900s. At one time, between 600,000 and 1 million of these fish returned to the basin each year. Now, only 100,000 to 200,000 fish return and many of these are bred in a hatchery rather than in the wild.

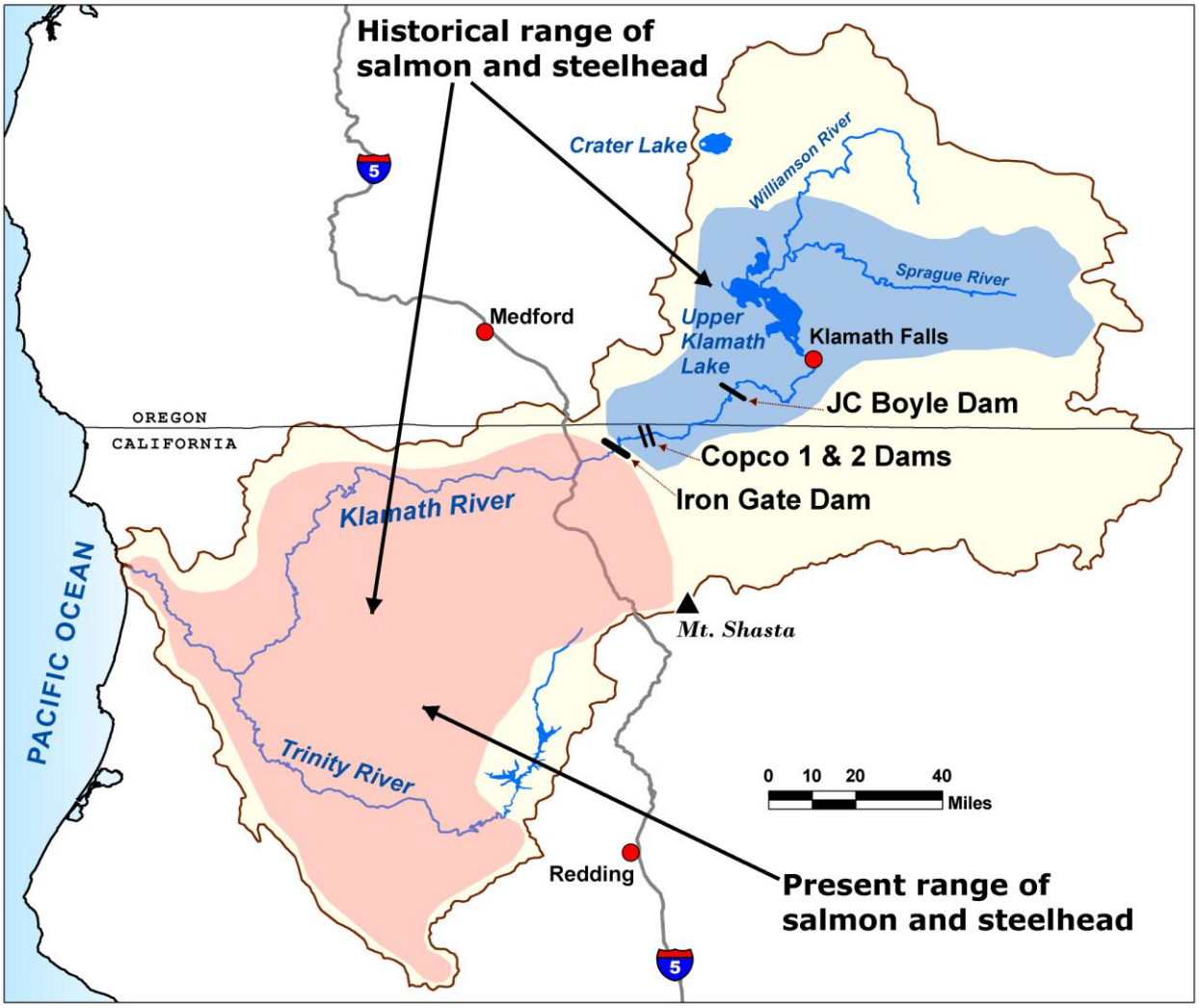
The reasons for declining fish populations include the following:

- **Dams on the Klamath River.** Before the dams were built, the fish migrated into streams in both the pink and blue areas shown on the map on the next page. Today they migrate only into the pink area. They are blocked from the blue area by Iron Gate Dam and the other hydroelectric dams shown on the map.
- **Water Use for Farm Irrigation.** The use of water for crops, especially around Upper Klamath Lake, has reduced the amount of water that remains for fish downstream.
- **Water Pollution.** Pollution comes from different human activities in the basin, including forestry, agriculture, and mining.
- **Overfishing.** In the past, commercial, recreational, and tribal fishing in the Klamath area contributed to the decline in fish numbers. In recent years, these activities have been much more carefully managed.

Q4. Please rate how much you agree or disagree with the following statement.

I am concerned about declines in the number of Chinook salmon and steelhead trout that return to the Klamath River each year.

- ❑ Strongly agree
- ❑ Agree
- ❑ Disagree
- ❑ Strongly disagree
- ❑ No opinion



Historical vs. Present Range of Returning Salmon and Steelhead Trout

Threatened and Endangered Fish in the Klamath River Basin

Some fish in the basin are at risk of becoming extinct because of water problems.

Three species have been listed as either **endangered** (very high risk) or **threatened** (high risk) under the U.S. Endangered Species Act. They are described in the table below.

Species Name—Status	Species Description	Main Threats
  **Shortnose Sucker (*Endangered*)**  **Lost River Sucker (*Endangered*)**	The **shortnose sucker** and **Lost River sucker** are found only in the areas around Upper Klamath Lake. For thousands of years, the Klamath Tribes used them as a major source of food. They were once plentiful enough to support commercial fishing, but now their numbers are greatly reduced.	➢ Low water levels in Upper Klamath Lake due to drought and irrigation ➢ Poor water quality in Upper Klamath Lake ➢ Irrigation channels, which fish swim into and get stuck
 **Coho Salmon (*Threatened*)**	The Klamath **coho salmon** is part of a distinct coho salmon population that lives only in the Klamath River Basin and a few nearby rivers in Southern Oregon and Northern California. They were once plentiful in the basin, but now more are born in hatcheries than in the wild.	➢ Klamath River dams blocking the river ➢ Low water flows in Klamath River due to drought and irrigation ➢ Fish raised in hatcheries compete for food and spread disease to wild coho salmon

Other species that are becoming rare in the basin include the **Pacific lamprey** (an eel-like fish) and the **green sturgeon** (a very large and prehistoric-looking fish). Both were once common in the basin and were an important food source for several tribes.

Q5. Please rate how much you agree or disagree with the following statement.

I am concerned about the shortnose and Lost River suckers that are at very high risk of extinction.

- ❑ Strongly agree
- ❑ Agree
- ❑ Disagree
- ❑ Strongly disagree
- ❑ No opinion

Q6. Please rate how much you agree or disagree with the following statement.

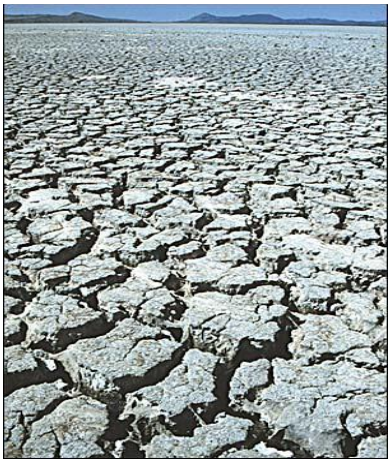
I am concerned about the Klamath coho salmon that are at high risk of extinction.

- ❑ Strongly agree
- ❑ Agree
- ❑ Disagree
- ❑ Strongly disagree
- ❑ No opinion

Resolving Conflicts over Water, Fish, and Dams in the Basin

The Klamath River Basin is important for many groups, but there is not always enough water for everyone, especially in drought years. Competing demands for water have been a source of conflict in the basin, especially in the early 2000s.

- 2001 was a very dry year. There was not enough water for both farm irrigation and endangered fish species, so large reductions in irrigation were required. This caused crop losses and economic hardships for local farmers.



Drought in Klamath Basin

Fish Kill on Klamath River

- 2002 was another dry year. This time more water was allowed for irrigation, but in late summer, over 33,000 salmon suddenly died in the Klamath River. Low water flows in the river were one of the main reasons.
- In 2006, commercial salmon harvests off the U.S. Pacific Northwest Coast were cut by 90%. The main reason was a lack of fish from the Klamath River, due in part to dams and low water flows. This caused economic hardship for fishermen.

The conflicts created by these events drew national attention and greatly increased public concern about the river basin. Lawsuits from many different parties were filed. At the same time, four dams on the river needed to be relicensed by the government. But changing the dams to allow fish to go around them would be more expensive than removing the dams and replacing their electric power.

After several years of court battles and conflict, very little progress had been made toward a solution. So the parties involved tried a different approach. Over 35 different groups agreed to work together to reach a compromise solution.

In February 2010, representatives from the Oregon and California governments, several tribes, counties, and other organizations reached an agreement. One tribe and one county in California have not yet signed the agreement.

Q7. Before taking this survey, had you read or heard about the conflicts over water in the Klamath River Basin?

- ❑ Yes
- ❑ No
- ❑ I don't know

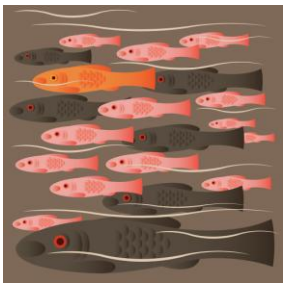
The Main Parts of the Agreement

The agreement defines the following three key steps for moving forward. Now the federal government must decide whether and how to implement these steps.

1. Dam Removal

- In 2020, after several years of detailed planning, the four large hydroelectric dams would be removed from the Klamath River.
- The reservoirs created by these dams (each 4 to 7 miles long) would no longer exist after 2020. The original river channel and the areas that were underwater would gradually return to their previous conditions.

2. Fish Restoration



- The agreement sets up a process for choosing projects to restore fish habitats in the basin. These projects would, for example, restore and protect fish spawning areas, improve water quality, remove barriers from the river, and prevent fish from swimming into irrigation channels.
- The agreement does NOT define the exact projects or exact amount of money that will be spent on fish restoration.

3. Water Sharing Agreement

- To protect fish, the agreement would permanently set limits on the amount of irrigation water that can be taken from Upper Klamath Lake. This would ensure enough water for fish and help people who rely on these fish for commercial, recreational, subsistence, and ceremonial purposes.
- Farm irrigators have agreed to these conditions because they define a specific and permanent schedule for annual water deliveries to farmers. Each year, the amount of water available for irrigation would depend directly on the amount of rain and snowfall in the basin.

Q8. Before taking this survey, had you read or heard about this agreement for restoring the Klamath River Basin?

- ❑ Yes
- ❑ No
- ❑ I don't know

How Would the Agreement's Activities Be Paid For?

For the agreement to move forward, money would need to come from three main sources:

- higher electricity bills for Oregon and California customers of PacifiCorp,
- Oregon and California state budget spending,
- federal government budget spending.

Under this agreement, Oregon and California residents and businesses would on average pay the more than residents from other states. But households across the country would contribute to these activities through their federal taxes.

Q9. Do you agree or disagree that Oregon and California residents should on average pay more than residents of other states for Klamath River Basin restoration?

- ❑ Strongly agree
- ❑ Agree
- ❑ I can see both sides of the issue
- ❑ Disagree
- ❑ Strongly disagree
- ❑ No opinion

Q10. Is your home's electric power provided by PacifiCorp (Pacific Power)?

- ❑ Yes
- ❑ No
- ❑ I don't know

Weighing the Impacts of Implementing the Agreement

Because the federal government would be paying part of the cost, it must now decide whether and how to implement this agreement. The agreement is expected to **improve the management** of Klamath Basin resources but would also have **costs and disadvantages**.

The agreement would

- increase the number of wild salmon and trout throughout the basin—this would increase the number of wild fish migrating to ocean waters and reduce the need for a fish hatchery on the Klamath River;
- reduce the chances of extinction for some fish species;
- improve water quality in the Klamath River and Upper Klamath Lake, where toxic blue-green algae blooms and low water oxygen levels have become common;
- create more natural free-flowing river conditions along most of the Klamath River;
- help tribes, farmers, fishermen, and other parties avoid conflicts and lawsuits over water;
- have no effect on flood control, since the dams are not used for this reason.

The agreement would also

- cost millions of dollars to deconstruct and remove the dams;
- cost millions of dollars to replace the dams' energy, some of which may come from renewable sources like wind or solar power, and some may come from more sources like coal which can create air pollution;
- cost millions of dollars for projects that restore fish habitat and improve water quality in the basin;
- put more limits on the amount of water available for irrigation, especially during drier years;
- release large amounts of sediment into the Klamath River during dam removal, which would harm fish and water quality for 1–2 years as it flows down towards the ocean;
- eliminate activities supported by the dams' reservoirs, like boating and fishing for non-native fish (perch and bass); about 100 homes now located near the shores of the reservoirs would lose their lakefront view.

Q11. Do you agree or disagree that the federal government should be involved in restoring the Klamath River Basin?

- ❑ Strongly agree
- ❑ Agree
- ❑ I can see both sides of the issue
- ❑ Disagree
- ❑ Strongly disagree
- ❑ No opinion

Q12. People often have different views about plans like this one. Please rate how much you agree or disagree with each of the following statements. (*Circle the number that matches your answer. If you have no opinion, check the box in the No Opinion column.*)

	1 Strongly Agree	**2 Agree**	**3 See Both Sides**	**4 Disagree**	**5 Strongly Disagree**	**No Opinion**
Some decrease in environmental quality is inevitable if we are going to continue to improve our standard of living	1	2	3	4	5	
When humans interfere with nature, it often produces disastrous results	1	2	3	4	5	
Humans should modify the natural environment to suit their needs	1	2	3	4	5	
The balance of nature is very delicate and easily upset	1	2	3	4	5	
The decision to develop natural resources should be based more on economic grounds than on environmental grounds	1	2	3	4	5	
When animals and plants become endangered, it is a sign that the whole environment is in danger and we need to protect it	1	2	3	4	5	
As long as some species of salmon are not endangered, it does not matter if other species of salmon become extinct	1	2	3	4	5	

Deciding on Future Action

To reach a decision about implementing the Klamath River Basin agreement, the federal government will need to consider different options.

- One option is to not implement the agreement. This is the NO ACTION plan.
- The other option is to implement the agreement, including dam removal, water sharing, and fish restoration. There are different possible ACTION PLANS for doing this.
- The main differences between the ACTION PLANS are that they involve different types and numbers of fish restoration projects and they have different costs.

On the next two pages, we will ask you to compare two different options: **NO ACTION** and **ACTION PLAN A**.

On the page after that, we will ask you to consider what you would do if you had the opportunity to VOTE for the option you prefer.

Please examine the options carefully and think about how you would actually vote in this situation. Some people are more willing to vote for a plan when payment is only imagined than when payment is real. Therefore, we urge you to consider your vote as though the costs for your household really would go up by the amount stated if the plan were implemented. Knowing how you would vote on these options is very important to the people who have to make decisions about this plan.

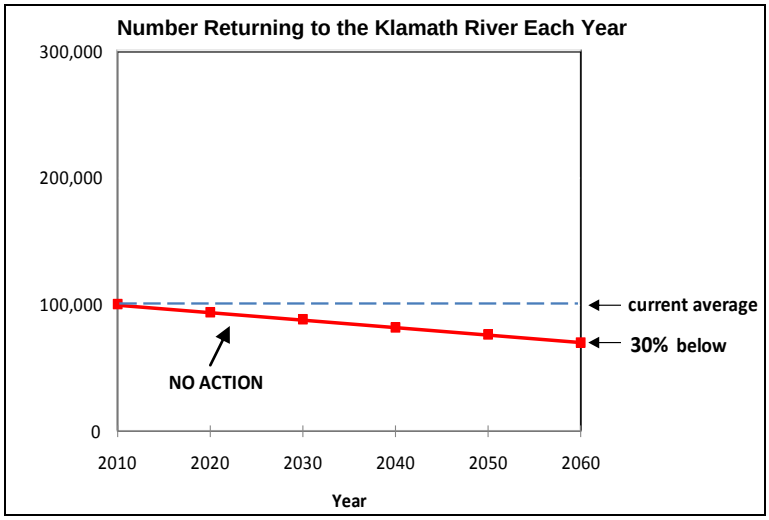
Q13. Have you ever personally had the opportunity to vote on a similar type of government natural resource management program?

- ❑ Yes
- ❑ No
- ❑ I don't know

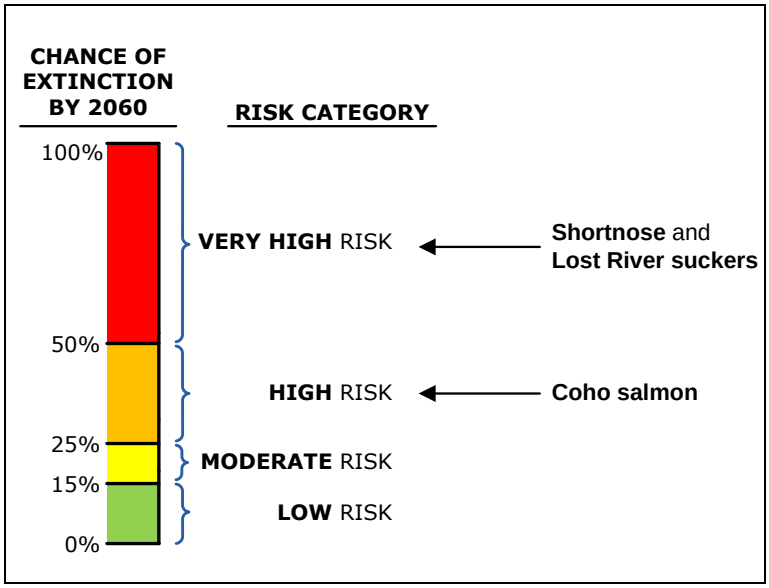
NO ACTION Plan

Under this option, there would be **NO DAM REMOVAL, NO FISH RESTORATION,** and **NO WATER SHARING AGREEMENT.** This would lead to:

- **DECLINING NUMBERS OF WILD CHINOOK SALMON AND STEELHEAD TROUT**
  - The dashed line shows the current average number of wild fish returning to the Klamath River each year.
  - The red line shows what would happen over the next 50 years.
  - Scientists expect that by **2060,** there would be **30% fewer** wild fish than today.



- **SAME RISK OF EXTINCTION FOR SUCKERS AND COHO SALMON**
  - **Suckers** would stay at VERY HIGH RISK (more than 50% chance of extinction by 2060).
  - **Coho salmon** would stay at HIGH RISK (25%–50% chance of extinction by 2060).

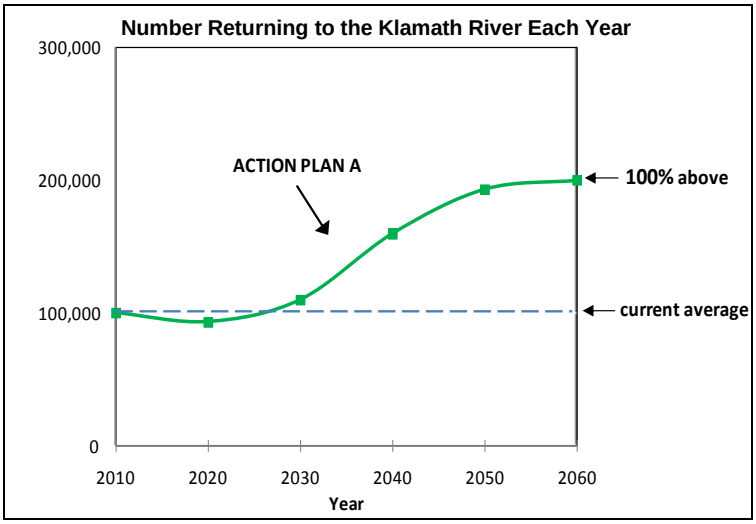


- **NO ADDED COST TO YOUR HOUSEHOLD:** There would be no increase in your household's taxes or electricity rates because the agreement would not be implemented.

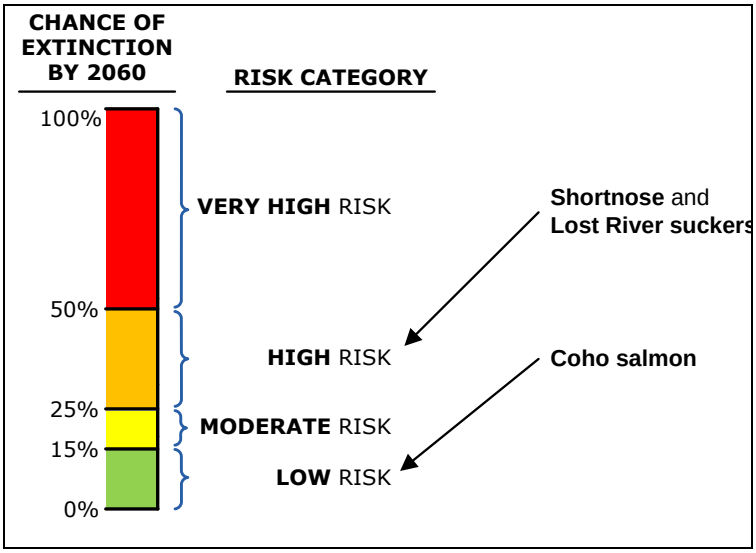
ACTION PLAN A

This option includes **DAM REMOVAL,** a specific set of **FISH RESTORATION** projects, and the **WATER SHARING AGREEMENT**. These actions would lead to:

- **INCREASING NUMBERS OF WILD CHINOOK SALMON AND STEELHEAD TROUT**
  - The number of wild fish returning to the Klamath River each year would increase after the dams are removed in 2020 (see green line in graph).
  - Scientists expect that by **2060,** there would be **100% more** wild fish than today.



- **LOWER RISK OF EXTINCTION FOR SUCKERS AND COHO SALMON**
  - **Suckers** would improve from VERY HIGH RISK to HIGH RISK.
  - **Coho salmon** would improve from HIGH RISK to LOW RISK.



- **ADDED COST TO YOUR HOUSEHOLD:** This plan would be paid for by a combination of
  - higher power bills for Oregon and California PacifiCorp customers,
  - state taxes from Oregon and California residents, and
  - federal taxes from all U.S. residents.

  Assume that for your household (and similar households in your area) the plan would cost you an additional **$48 per year** for the next 20 years (beginning in 2011). That is the same as **$4 per month** for the next 20 years.

Choice 1: Which Option Do You Prefer?

Please imagine that all U.S. residents were presented with two options—**NO ACTION** and **ACTION PLAN A**—and asked to vote for the one they prefer. The one with the most votes would be implemented.

Ask yourself whether you believe the improvements offered under ACTION PLAN A are worth $48 each year to your household**.** Voting for PLAN A would mean that you would have $48 less each year to spend on other things. **You would be making a commitment to pay this additional amount each year for the next 20 years**. There may be good reasons for you to vote for PLAN A and good reasons to vote for NO ACTION. Only you know what is best for you and your household.

Q14. Which option would you vote for?

- ❑ NO ACTION
- ❑ ACTION PLAN A

Q15. How certain do you feel about the choice you made above?

- ❑ Very certain
- ❑ Somewhat certain
- ❑ Not at all certain

Now consider a different choice…

We would now like to know how you would vote if you were presented with a completely different action plan.

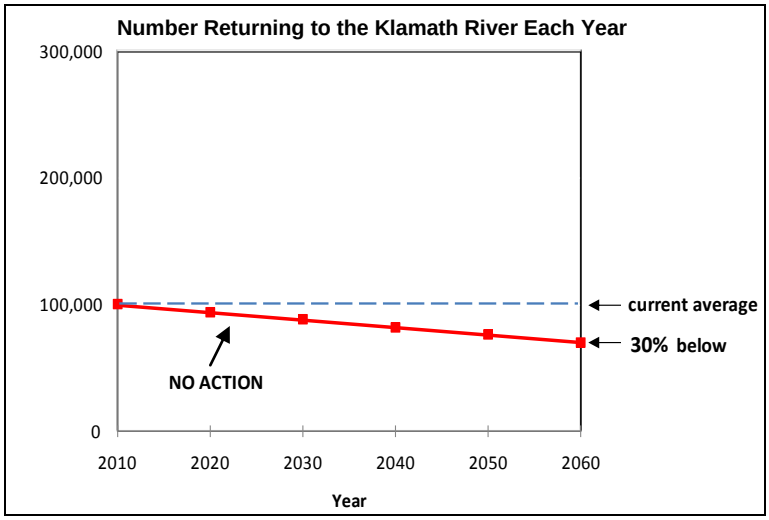
For this next choice, please imagine that ACTION PLAN A is NOT an option.

Instead, the next two pages will describe **ACTION PLAN B** and compare it to the NO ACTION plan. On the page after that, we will ask you to consider what you would do if you had the opportunity to vote for the plan you prefer. When making this choice, please imagine that the ONLY two options are NO ACTION and ACTION PLAN B.

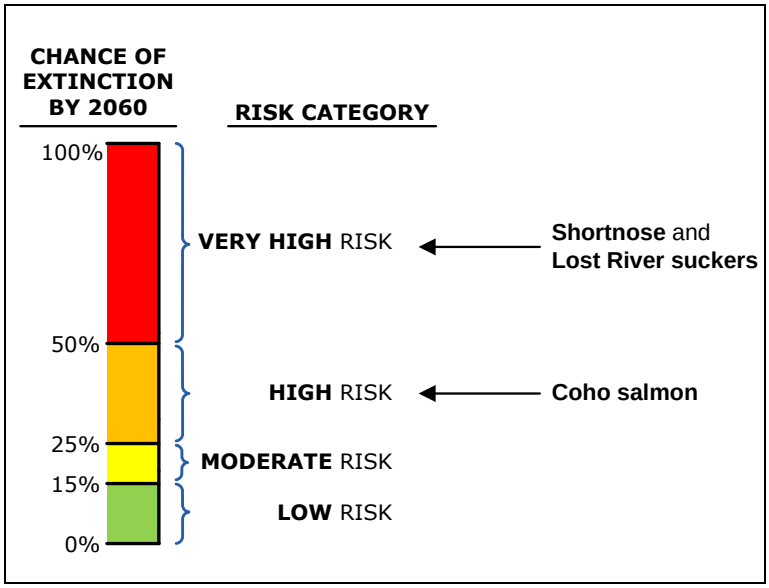
NO ACTION Plan

Under this option, there would be **NO DAM REMOVAL, NO FISH RESTORATION,** and **NO WATER SHARING AGREEMENT.** This would lead to:

- **DECLINING NUMBERS OF WILD CHINOOK SALMON AND STEELHEAD TROUT**
  - The dashed line shows the current average number of wild fish returning to the Klamath River each year.
  - The red line shows what would happen over the next 50 years.
  - Scientists expect that by **2060,** there would be **30% fewer** wild fish than today.



- **SAME RISK OF EXTINCTION FOR SUCKERS AND COHO SALMON**
  - **Suckers** would stay at VERY HIGH RISK (more than 50% chance of extinction by 2060).
  - **Coho salmon** would stay at HIGH RISK (25%–50% chance of extinction by 2060).

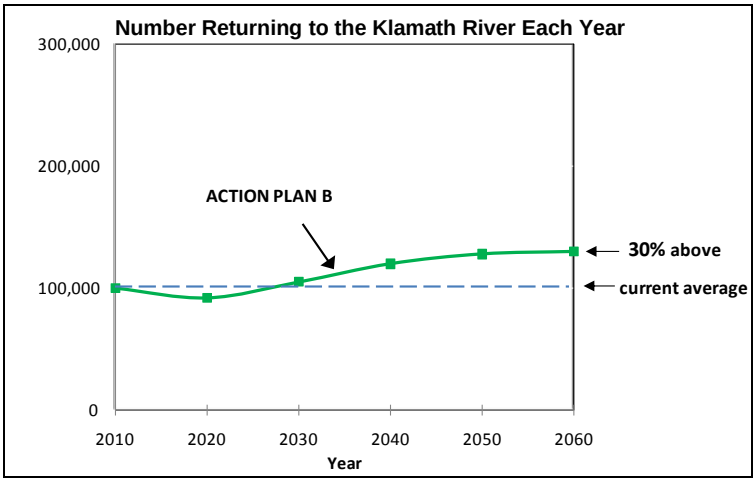


- **NO ADDED COST TO YOUR HOUSEHOLD:** There would be no increase in your household's taxes or electricity rates because the agreement would not be implemented.

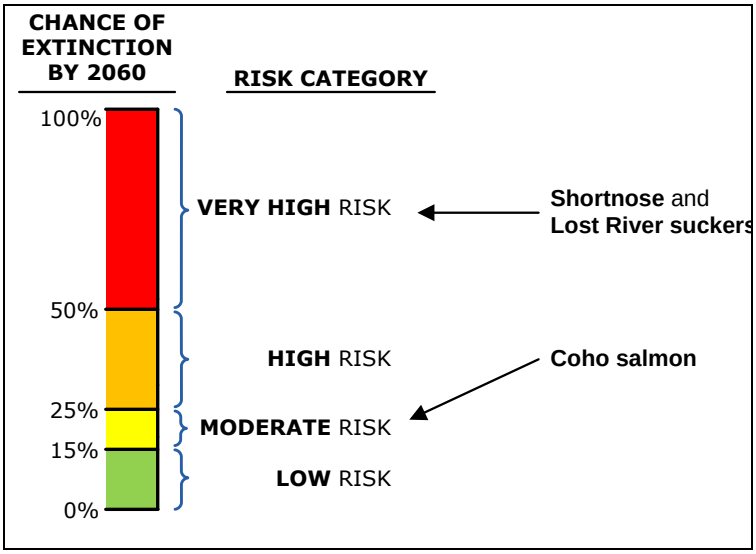
ACTION PLAN B

This option includes **DAM REMOVAL,** a specific set of **FISH RESTORATION** projects, and the **WATER SHARING AGREEMENT**. These actions would lead to:

- **INCREASING NUMBERS OF WILD CHINOOK SALMON AND STEELHEAD TROUT**
  - The number of wild fish returning to the Klamath River each year would increase after the dams are removed in 2020 (see green line in graph).
  - Scientists expect that by **2060,** there would be **30% more** wild fish than today.



- **LOWER RISK OF EXTINCTION FOR COHO SALMON**
  - **Suckers** would stay at VERY HIGH RISK.
  - **Coho salmon** would improve from HIGH RISK to MODERATE RISK.



- **ADDED COST TO YOUR HOUSEHOLD:** This plan would be paid for by a combination of
  - higher power bills for Oregon and California PacifiCorp customers,
  - state taxes from Oregon and California residents, and
  - federal taxes from all U.S. residents.

  Assume that for your household (and similar households in your area) the plan would cost you an additional **$24 per year** for the next 20 years (beginning in 2011). That is the same as **$2 per month** for the next 20 years.

Choice 2: Which Option Do You Prefer?

Please imagine that all U.S. residents were presented with two options—**NO ACTION** and **ACTION PLAN B**—and asked to vote for the one they prefer. The one with the most votes would be implemented.

Ask yourself whether you believe the improvements offered under ACTION PLAN B are worth $24 each year to your household. Voting for PLAN B would mean that you would have $24 less each year to spend on other things. **You would be making a commitment to pay this additional amount each year for the next 20 years.** There may be good reasons for you to vote for PLAN B and good reasons to vote for NO ACTION. Only you know what is best for you and your household.

Q16. Which option would you vote for?

- ❑ NO ACTION
- ❑ ACTION PLAN B

Q17. How certain do you feel about the choice you made above?

- ❑ Very certain
- ❑ Somewhat certain
- ❑ Not at all certain

Q18. Thinking about the two choices you just made, please rate how much you agree or disagree with each of the following statements. (*Circle the number that matches your answer.*)

	1 **Strongly Agree**	**2** **Agree**	**3** **Neither Agree nor Disagree**	**4** **Disagree**	**5** **Strongly Disagree**
My choices would have been different if the economy in my area were better.	1	2	3	4	5
It is important to restore the Klamath River Basin, no matter how much it costs.	1	2	3	4	5
I do not think I should have to contribute to the restoration of the Klamath River Basin.	1	2	3	4	5
I am concerned that the plans would hurt the economy in the Klamath River Basin.	1	2	3	4	5
The descriptions of the plans were hard to understand.	1	2	3	4	5
I do not believe that the plans will actually increase the number of fish as described.	1	2	3	4	5
Removing the dams from the Klamath River is a bad idea.	1	2	3	4	5
Some of the plans cost too much compared to what they would deliver.	1	2	3	4	5
The changes offered by the plans happen too far in the future for me to really care.	1	2	3	4	5
The survey provided me with enough information to make a choice between the options shown.	1	2	3	4	5

Q19. If you voted for NO ACTION in either of the two choices, please rate how much you agree or disagree with each of the following statements. If not, skip to Q20.

	1 Strongly Agree	**2 Agree**	**3 Neither Agree nor Disagree**	**4 Disagree**	**5 Strongly Disagree**
I voted for NO ACTION because I am against any more taxes or government spending.	1	2	3	4	5
I voted for NO ACTION because I believe my taxes are already too high.	1	2	3	4	5

Q20. If you voted for ACTION PLAN A or ACTION PLAN B, please rate how much you agree or disagree with each of the following statements. If not, skip this question.

	1 Strongly Agree	**2 Agree**	**3 Neither Agree nor Disagree**	**4 Disagree**	**5 Strongly Disagree**
I voted for the action plan because I thought it would increase the chances that the government would do the same thing in river basins closer to my home.	1	2	3	4	5
I voted for the action plan more for future generations than for myself.	1	2	3	4	5

Surveys like this are used to collect people's opinions about policies the government is considering. Information from this survey will be summarized and presented to policy makers at the Department of the Interior. This department must make the final decision about the plans.

Q21. In your opinion, how likely do you think it is that policy makers will consider the results from this survey to make decisions about Klamath River Basin restoration?

- ❑ Very likely
- ❑ Somewhat likely
- ❑ Even chances
- ❑ Somewhat unlikely
- ❑ Very unlikely
- ❑ No opinion

Your Recreational Use of the Klamath River Basin

Now we would like to ask a few questions about recreational trips to the Klamath River Basin—trips you took for fun and to relax, not for work.

If you have not visited the Klamath River Basin for a recreation trip in the past 12 months, please turn to the next page.

Q22. How many recreation trips did you make to the Klamath River Basin in the past 12 months?

_____ trips

Q23. What activities did you do? ***(Please check all the activities you did.)***

___ River/stream fishing

___ Lake/reservoir fishing

___ Motorboating or jetskiing

___ Rafting

___ Canoeing or kayaking

___ Swimming

___ Camping

___ Waterfowl hunting

___ Hiking

___ Bird watching

___ Other: _____

Q24. How long does it take to travel one way from your home to the site in the Klamath River Basin that you visited most often on these trips? *(Enter the number of hours plus minutes in the spaces provided below.)*

_____ hours and _____ minutes

Suppose that the Klamath River Basin agreements had been implemented many years ago. As a result, suppose that

- the four dams and their reservoirs were gone, and the river and surrounding area had already returned to their original state;
- salmon and steelhead trout were present throughout the basin (the pink and blue areas of the map on page 7); and
- 100% more salmon and steelhead trout returned to the Klamath River each year than today.

Q25. If the agreements had been implemented years ago and current conditions were as described above, how do you think your total trips to the Klamath River Basin in the past 12 months would have changed?

- ❑ No change in total visits
- ❑ I would have made more visits ➡ I would have made _____ total visits
- ❑ I would have made fewer visits ➡ I would have made _____ total visits
- ❑ I would not have made any visits

About You and Your Household

Finally, we would like to ask you a few questions about you and your household. These questions will be used to compare our survey respondents with the U.S. population as a whole. Your answers will be kept anonymous. They will not be saved or stored in a way that can be associated with your name or address.

Q26. Are you male or female?

- ❑ Male
- ❑ Female

Q27. What is your age?

_____ years old

Q28. What is your current marital status?

- ❑ Single, never married
- ❑ Married or living with a long-term partner
- ❑ Separated or divorced
- ❑ Widowed

Q29. How many children under age 18 are living at your home?

_____ children

Q30. What was your total pre-tax household income, including all earners in your household, in 2009?

- ❑ Under $25,000
- ❑ $25,000–$34,999
- ❑ $35,000–$49,999
- ❑ $50,000–$74,999
- ❑ $75,000–$99,999
- ❑ $100,000-$199,999
- ❑ $200,000 or more

Q31. What is the highest degree or level of school you have completed?

- ❑ No high school diploma
- ❑ High school diploma or GED
- ❑ Some college credit but no degree
- ❑ Associate's degree (for example: AA or AS)
- ❑ Bachelor's degree (for example: BA or BS)
- ❑ Some graduate school or professional school credit or a graduate or professional degree

Q32. Which of the following best describes the home or apartment you live in?

- ❑ Owned by you or someone in your household with a mortgage or loan
- ❑ Owned by you or someone in your household without a mortgage or loan
- ❑ Rented
- ❑ Other: _____

Q33. In an average week, how many hours do you usually have for leisure activities—watching TV, reading, playing sports, or other activities? *(Do not include time spent sleeping.)*

- ❑ 0–10 hours
- ❑ 11–20 hours
- ❑ 21–30 hours
- ❑ 31–40 hours
- ❑ More than 40 hours

Q34. Which of the following categories best describes your household employment status? *(Please check all that apply.)*

	You	Spouse/Partner
❑ Employed full time	☐	☐
❑ Employed part time	☐	☐
❑ Retired	☐	☐
❑ Student	☐	☐
❑ Full-time homemaker	☐	☐
❑ Unemployed	☐	☐
❑ Other *(please specify)*	_____	_____

Q35. Are you Hispanic or Latino? (A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.)

- ❑ Yes
- ❑ No

Q36. Please select the racial category or categories with which you most closely identify by placing an "X" in the appropriate box. Check as many as apply.

- ❑ American Indian or Alaska Native
  (A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.)
- ❑ Asian
  (A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.)
- ❑ Black or African American
  (A person having origins in any of the black racial groups of Africa.)
- ❑ Native Hawaiian or Other Pacific Islander
  (A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.)
- ❑ White
  (A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.)

Q37. Do you or either of your parents belong to any of the following tribes in the Klamath River Basin?

- ❑ Hoopa
- ❑ Karuk
- ❑ Klamath
- ❑ Yurok
- ❑ Other: _____
- ❑ Neither I nor my parents belong to any of these tribes

Q38. Have you or any member of your family ever worked for any of the following industries or jobs? *(Please check all that apply.)*

- ❑ Commercial fishing
- ❑ Farming
- ❑ Dam operations
- ❑ Electric power generation
- ❑ River guiding or rafting
- ❑ Tour guide for fishing

Q39. We are interested in how people are getting along financially these days. Would you say that you and your family are better off, just about the same, or worse off financially than you were a year ago?

- ❑ We are better off
- ❑ We are just about the same
- ❑ We are worse off

Q40. Looking ahead, do you think that a year from now you and your family will be financially better off, just about the same, or worse off financially?

- ❑ We will be better off
- ❑ We will be just about the same
- ❑ We will be worse off

Q41. Has someone in your household been jobless in the past year?

- ❑ Yes
- ❑ No
- ❑ I don't know

Q42. During the past year, what was your highest and your lowest monthly electric bill? If you are not sure what your bills were, please give us your best estimate and check the box for "I'm not sure what my bill was, this is an estimate." If you do not pay an electric bill, check the box by "I do not pay an electric bill."

- ❑ I do not pay an electric bill

My highest electric bill was $_____ in _____ (write name of month)

- ❑ I'm not sure what my bill was, this is an estimate

My lowest electric bill was $_____ in _____ (write name of month)

- ❑ I'm not sure what my bill was, this is an estimate

Q43. Many people are looking for ways to reduce their electric bills. If your electric power company offered you a device that cost $50 and would reduce your electricity costs by $2 each month for the next 10 years, would you purchase the device?

- ❑ Yes
- ❑ No

Q44. Are you the adult in your household with the most recent birthday? (If not, we are still very interested in your responses and encourage you to return the survey. We would like to know this for statistical purposes.)

- ❑ Yes
- ❑ No

Thank you very much for your help.

Once you are done, please mail this completed survey back to us in the postage-paid return envelope provided. If you have any questions, please contact us toll-free at 1-866-555-6000 or e-mail us at Klamath_survey@rti.org.

If you have comments about the survey, please add them on the lines below:

_____
_____
_____
_____
_____
_____

Survey insert: Map of Klamath River Basin

Alternative order for human uses page

Version 2 of human uses page (reverse alphabetical order)

Human Uses of the Klamath River Basin Water

People use the water in the basin in many ways. Like other big rivers, it is difficult to balance how much water should go to each different activity. The following are some of the main uses:

- **Tribal Cultural Practices.** For thousands of years, several Indian tribes have lived in the basin. Some of these tribes, including the Klamath, Yurok, Karuk, and Hoopa have relied on the river's salmon and other fish for food, for cultural and ceremonial activities, and for their economic well-being.

- **Recreation and Tourism.** The basin supports a wide range of water-based recreation activities, including fishing, boating, and swimming. It contains blue ribbon trout streams and highly rated whitewater rapids for rafting. Salmon from the basin also support recreational fishing in the Pacific Ocean.
- **Hydroelectric Power.** From 1909 to 1962, several dams were built on the Klamath River near the Oregon-California border. They are operated by the power company PacifiCorp (also known as Pacific Power). Together, these dams can produce enough electricity to power about 70,000 homes.
- **Farmland Irrigation.** Since 1905, the U.S. Bureau of Reclamation has provided water for farms in the basin. It currently supplies water to about 200,000 acres of farmland (1,400 farms).
- **Commercial Fishing.** The Klamath River is an important source of salmon for commercial fishermen in both the river and the Pacific Ocean. For most of the twentieth century, the Klamath River was the third largest producer of salmon on the U.S. West Coast.

Experimental design for choice questions

The experimental design produced 16 blocks of 2 choice questions. The attribute levels in the choice questions vary based on the experimental design. The table below presents the levels for each question in the 16 blocks.

Attribute levels for No Action Plan (fixed across all questions)

Change in fish population from current baseline

- -30%

Extinction Risk for suckers

- Very high

Extinction Risk for coho salmon

- High

Annual cost

- $0

Attribute levels for Action Plans

Change in fish population from current baseline

- 30%
- 100%
- 150%

Extinction Risk for suckers

- Moderate
- High
- Very high

Extinction Risk for coho salmon

- Low
- Moderate
- High

Annual cost

- $12
- $24
- $48
- $90

			111		112
VERSION 1		**No Action**	**Action A**	**No Action**	**Action B**
Att 1 - 1	**change in fish pop**	-30%	100%	-30%	150%
Att 2 - 2	**sucker risk**	VERY HIGH	MODERATE	VERY HIGH	HIGH
Att 3 - 3	**coho risk**	HIGH	MODERATE	HIGH	HIGH
Att 4 - 4	**annual cost**	$0	$12	$0	$48

			211		212
VERSION 2		**No Action**	**Action A**	**No Action**	**Action B**
Att 1 - 2	**change in fish pop**	-30%	100%	-30%	30%
Att 2 - 3	**sucker risk**	VERY HIGH	VERY HIGH	VERY HIGH	MODERATE
Att 3 - 4	**coho risk**	HIGH	LOW	HIGH	MODERATE
Att 4 - 5	**annual cost**	$0	$48	$0	$24

			311		312
VERSION 3		**No Action**	**Action A**	**No Action**	**Action B**
Att 1 - 3	**change in fish pop**	-30%	150%	-30%	30%
Att 2 - 4	**sucker risk**	VERY HIGH	VERY HIGH	VERY HIGH	HIGH
Att 3 - 5	**coho risk**	HIGH	MODERATE	HIGH	LOW
Att 4 - 6	**annual cost**	$0	$90	$0	$12

			411		412
VERSION 4		**No Action**	**Action A**	**No Action**	**Action B**
Att 1 - 4	**change in fish pop**	-30%	100%	-30%	30%
Att 2 - 5	**sucker risk**	VERY HIGH	MODERATE	VERY HIGH	HIGH
Att 3 - 6	**coho risk**	HIGH	HIGH	HIGH	MODERATE
Att 4 - 7	**annual cost**	$0	$90	$0	$48

			511		512
VERSION 5		**No Action**	**Action A**	**No Action**	**Action B**
Att 1 - 5	**change in fish pop**	-30%	100%	-30%	30%
Att 2 - 6	**sucker risk**	VERY HIGH	HIGH	VERY HIGH	MODERATE
Att 3 - 7	**coho risk**	HIGH	MODERATE	HIGH	LOW
Att 4 - 8	**annual cost**	$0	$90	$0	$48

			611		612
VERSION 6		**No Action**	**Action A**	**No Action**	**Action B**
Att 1 - 6	**change in fish pop**	-30%	150%	-30%	100%
Att 2 - 7	**sucker risk**	VERY HIGH	VERY HIGH	VERY HIGH	HIGH
Att 3 - 8	**coho risk**	HIGH	HIGH	HIGH	LOW
Att 4 - 9	**annual cost**	$0	$12	$0	$24

			711		712
VERSION 7		**No Action**	**Action A**	**No Action**	**Action B**
Att 1 - 7	**change in fish pop**	-30%	150%	-30%	30%

Att 2 - 8	**sucker risk**	VERY HIGH	MODERATE	VERY HIGH	VERY HIGH
Att 3 - 9	**coho risk**	HIGH	HIGH	HIGH	MODERATE
Att 4 - 10	**annual cost**	$0	$48	$0	$12
			811		812
VERSION 8		**No Action**	**Action A**	**No Action**	**Action B**
Att 1 - 8	**change in fish pop**	-30%	30%	-30%	150%
Att 2 - 9	**sucker risk**	VERY HIGH	MODERATE	VERY HIGH	VERY HIGH
Att 3 - 10	**coho risk**	HIGH	HIGH	HIGH	LOW
Att 4 - 11	**annual cost**	$0	$24	$0	$90
			911		912
VERSION 9		**No Action**	**Action A**	**No Action**	**Action B**
Att 1 - 9	**change in fish pop**	-30%	30%	-30%	100%
Att 2 - 10	**sucker risk**	VERY HIGH	MODERATE	VERY HIGH	HIGH
Att 3 - 11	**coho risk**	HIGH	LOW	HIGH	MODERATE
Att 4 - 12	**annual cost**	$0	$90	$0	$12
			1011		1012
VERSION 10		**No Action**	**Action A**	**No Action**	**Action B**
Att 1 - 10	**change in fish pop**	-30%	150%	-30%	100%
Att 2 - 11	**sucker risk**	VERY HIGH	VERY HIGH	VERY HIGH	HIGH
Att 3 - 12	**coho risk**	HIGH	MODERATE	HIGH	HIGH
Att 4 - 13	**annual cost**	$0	$24	$0	$48
			1111		1112
VERSION 11		**No Action**	**Action A**	**No Action**	**Action B**
Att 1 - 11	**change in fish pop**	-30%	150%	-30%	30%
Att 2 - 12	**sucker risk**	VERY HIGH	MODERATE	VERY HIGH	HIGH
Att 3 - 13	**coho risk**	HIGH	MODERATE	HIGH	HIGH
Att 4 - 14	**annual cost**	$0	$48	$0	$12
			1211		1212
VERSION 12		**No Action**	**Action A**	**No Action**	**Action B**
Att 1 - 12	**change in fish pop**	-30%	150%	-30%	100%
Att 2 - 13	**sucker risk**	VERY HIGH	HIGH	VERY HIGH	VERY HIGH
Att 3 - 14	**coho risk**	HIGH	MODERATE	HIGH	LOW

Att 4 - 15	**annual cost**	$0	$90	$0	$24
			1311		1312
VERSION 13		**No Action**	**Action A**	**No Action**	**Action B**
Att 1 - 13	**change in fish pop**	-30%	30%	-30%	100%
Att 2 - 14	**sucker risk**	VERY HIGH	VERY HIGH	VERY HIGH	MODERATE
Att 3 - 15	**coho risk**	HIGH	LOW	HIGH	HIGH
Att 4 - 16	**annual cost**	$0	$48	$0	$90
			1511		1512
VERSION 14		**No Action**	**Action A**	**No Action**	**Action B**
Att 1 - 14	**change in fish pop**	-30%	100%	-30%	150%
Att 2 - 15	**sucker risk**	VERY HIGH	VERY HIGH	VERY HIGH	HIGH
Att 3 - 16	**coho risk**	HIGH	MODERATE	HIGH	LOW
Att 4 - 17	**annual cost**	$0	$48	$0	$90
			1611		1612
VERSION 15		**No Action**	**Action A**	**No Action**	**Action B**
Att 1 - 15	**change in fish pop**	-30%	30%	-30%	150%
Att 2 - 16	**sucker risk**	VERY HIGH	MODERATE	VERY HIGH	VERY HIGH
Att 3 - 17	**coho risk**	HIGH	MODERATE	HIGH	HIGH
Att 4 - 18	**annual cost**	$0	$24	$0	$12
			1711		1712
VERSION 16		**No Action**	**Action A**	**No Action**	**Action B**
Att 1 - 16	**change in fish pop**	-30%	150%	-30%	30%
Att 2 - 17	**sucker risk**	VERY HIGH	MODERATE	VERY HIGH	VERY HIGH
Att 3 - 18	**coho risk**	HIGH	MODERATE	HIGH	LOW
Att 4 - 19	**annual cost**	$0	$24	$0	$90