United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, D.C. 20240

AUG 10 2011

Mr. Steven Richardson
Van Ness Feldman
1050 Thomas Jefferson Street, N.W.
Washington, D.C. 20007-38877

Subject: Second and Renewed Request for Correction of Information in the Klamath Non-Use Valuation Survey, OMB Control Number 1090-0010

Dear Mr. Richardson:

This letter is in response to your March 18, 2011, request on behalf of PacifiCorp for a Second Request for Correction under the Information Quality Act (IQA) in which you raise concerns with the factual correctness of some information contained in the planned Klamath Non-Use Valuation Survey. The Department of the Interior (DOI) is committed to following guidelines published under the IQA. In accordance with these guidelines, we have reviewed your submission and have considered your concerns toward revision of the survey instrument.

As you may know, DOI proceeded with the Pilot Test portion of the survey process to adequately address the concerns raised with factual information received from the public. The results of the Pilot Test have informed our response to your submission and in July 2011, the Office of Management and Budget (OMB) approved the final survey instrument. Responses to the issues raised in the Second Request for Correction are detailed in the first enclosure with information from the Pilot Test results provided where necessary. A summary of the Pilot Test results are provided in the second enclosure to this letter. The third enclosure is a copy of the final survey instrument approved by the OMB.

We hope that the summary of the Pilot Test results, responses provided, and the changes made to the survey instrument 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 M. Simon
Assistant Director
Economic Analysis

cc:
Vany Kaiser
Office of the Chief Information Officer

3 Enclosures
Response to Van Ness Feldman Comments – Second Request for Correction
Summary of Klamath Pilot Test Results
OMB Approved Final Klamath Non-Use Valuation Survey

ENCLOSURE 1

Response to Van Ness Feldman Comments – Second Request for Correction

Klamath Non-Use Valuation Survey – OMB Control Number 1090-0010

The Klamath Non-Use Valuation Survey is designed to address an important area of benefits that can be defined as "non-use values." Non-use values accrue to members of the public who value Klamath Basin improvements regardless of whether they ever consume Klamath fish or visit the Klamath Basin. Non-use value is a component of the total value an individual places on the environmental change. To measure these benefits, the Department of the Interior (DOI) has designed a stated-preference (SP) valuation survey of the U.S. public. The survey will be the only component of the larger economic analysis that assesses the benefits that the U.S. public as a whole (who are federal taxpayers) hold for dam removal and implementing the Klamath Basin Restoration Agreement (KBRA), which will be funded in part by the federal government. The survey does not address the cost of the Klamath Hydroelectric Settlement Agreement (KHSA) or the KBRA, but rather asks individuals to focus on what they would be willing to pay for environmental improvements to derive an estimate of the benefits they receive, which can be above and beyond the actual costs. In this context, costs associated with the status quo are not relevant for the survey. The survey was designed and pretested to address a complex set of issues. As such, it needs to be as simple and straightforward as possible. Including every nuance or detail about the KHSA or KBRA would create excessive cognitive burden on survey respondents and is unlikely to influence individuals' responses in a material way for a survey that will administered at a national level.

On February 16, 2011, the DOI published an announcement for revision of the information collection ''Klamath Non-use Valuation Survey,'' Office of Management and Budget (OMB) Control No. 1090–0010, and requested comments. This Notice supplements the Notices that were published on August 30, 2010, and September 8, 2010.

Comments by PacifiCorp (submitted via Van Ness Feldman letter dated March 18, 2011)

COMMENTS ON NO-ACTION PLAN (as portrayed in the survey)

Comment 1:

Effects inaccurately or inadequately portrayed

- No Action plan does not reflect effects of actions that could realistically be anticipated in absence of dam removal (e.g., PacifiCorp's Habitat Conservation Plan, Inspector General's Hatchery conservation, fish passage, total maximum daily loads implementation (TMDL).
- Need to consider contribution of hatcheries to historical fish returns (citing Fortune et al. 1966 and Snyder 1931).

Response:
The goal of the survey is to evaluate the public's maximum willingness to pay (WTP) for the incremental environmental improvements compared to the status quo. The non-use valuation survey's description of the "No Action" Alternative is meant to be consistent with the characterization of the No Action/No Project Alternative used in the Environmental Impact Statement/Environmental Impact Report (EIS/EIR) currently being prepared to evaluate the potential impacts of the KHSA along with the KBRA. Broadly, the EIS/EIR defines the No Action/No Project Alternative as continuation of current operations with the dams remaining in place and PacifiCorp operating under the current annual license. We disagree with the comment.

Furthermore, the survey is not a referendum on the KBRA and the No Action plan is not supposed to represent the variety of outcomes that might occur if there were no KBRA and KHSA. The most straightforward and easily understood way to elicit respondents' values for the environmental improvements associated with dam removal and KBRA (their WTP) is to ask about improvements relative to a static baseline.

The results from the pretest suggest that most respondents could understand the questions, followed instructions, and had adequate information to answer the SP conjoint questions. See Table 6 and Table 10 of Enclosure 2, Summary of Klamath Pilot Test Results, for additional detail. As such, additional edits to the text of the survey instrument were not made in response to this comment.

<u>COMMENTS ON ACTION PLAN</u>

Comment 2:
Effects inaccurately or inadequately portrayed.

- Benefits portrayed as more certain than indicated by science (e.g., expert panels) survey based on hypothetical outcomes that do not reflect specific effects of proposed actions on salmon abundance and extinction risk – should not implement survey until specific effects and associated uncertainty of each alternative clarified in EIS. The survey asserts 30-150 percent increase in salmonid abundance – how to reconcile quantitative projections for fall Chinook with qualitative projections for steelhead. Quantitative extinction risk levels for coho (high 25-50 percent to low 0-15 percent) inconsistent with National Marine Fisheries Service's (NMFS) qualitative ratings (high, moderate, low).
- Dam removal will not address legacy affects contributing to salmon population declines (e.g., mining, timber harvest, fisheries).
- Dams' energy may be replaced by coal, "which can create air pollution and exacerbate climate change."

Response:
The benefit of stated-preference surveys is that they can be used to evaluate a range of outcomes, including outcomes that may be outside current thinking. In this case, where there is uncertainty about the outcome, the survey will provide information about the value of a range of possible outcomes. Expert panel reports and various technical analyses are still in

preparation. If the survey was limited to focusing on one outcome based on currently available information, survey results will be much less useful if new information is developed that suggests, for example, a higher or lower outcome in terms of fishery improvements. In addition, the survey results will tell us whether people are willing to pay more for greater improvements, which will help with understanding how the public views the improvements.

The survey cannot portray all of the effects in a detailed manner. There is no reason to believe that the best available information, which is a mix of quantitative and qualitative information -- will impair individuals' understanding of the scenarios. The survey was tested with focus groups and cognitive interviews with the goal of designing a survey that individuals can complete in a manageable timeframe, consistent with the information collection requirements of The Paperwork Reduction Act. While dam removal will not address legacy effects, habitat restoration (which is also part of the Action Plan) will help in this regard.

Comment 3:

On page 5 of the Revised Non-use Valuation Survey (NVS), the five uses listed in the survey (i.e., the five bulleted statements on page 5) do not include all human uses of the Klamath River basin waters. Timber production and management effects water yield and quantity from sub-watersheds. Mining, although not prevalent today, was a major use of the Klamath River in the past and affected the river channel in ways that are still evident. In the first comprehensive study of Klamath River salmon, Snyder (1931) concluded that the river's salmon runs were diminishing before the construction of the dams, and described a key cause as the advent of placer mining in the Klamath River basin. On page 5, in the bulleted statement on "Commercial Fishing," the Revised NVS incorrectly states that the Klamath River has been the third largest producer of salmon on the U.S. West Coast. It would be accurate to alternatively state that "the Klamath River has been the third largest producer of salmon among rivers in California and Oregon."

Response:

The purpose of the bullets is to highlight major current uses.

Comment 4:

On page 6 of the Revised NVS, the "reasons for declining fish populations" should include fish disease or habitat degradation, which are major factors affecting salmon populations in the basin. Fish disease in particular is completely absent from this survey. On page 6 of the Revised NVS, the bulleted statement on "Water Quality" should be rewritten to state:

> The Klamath River has naturally warm water temperatures in summer and naturally grows algae blooms that affect water quality. Different human activities in the basin, including agriculture, hydropower, forestry, and mining, also affect water quality. Despite efforts to better manage these human uses, water quality is still a problem for fish.

The statement presently included in this bullet, that "Algae that grow in the warm water can kill fish[,]" is theoretically true, but there are no actual documented cases of fish kills in the Klamath River from algae.

- **Response:**

The results from the pretest suggest that the majority of respondents could understand the questions, followed instructions, and had adequate information to answer the SP conjoint questions. See Table 6 and Table 10 of Enclosure 2, Summary of Klamath Pilot Test Results, for additional detail. As such, additional edits to the text of the survey instrument were not made in response to this comment.

Comment 5:

Page 6 of the Revised NVS states that (in the bulleted statement on "Overfishing"): "Currently, fisheries are better managed to help protect weak fish populations." This line implies that fishing is not a reason for declining fish populations in the basin. Fisheries continue to take upwards of 40 percent of the returning adults each year and also select the larger fish which reduces population productivity. The bulleted statement that contains this line should be changed to read as follows:

> Fish Harvest. In the past, poor management of commercial, ocean and river fishing in the Klamath area contributed to the decline in fish numbers. Over time, fishing regulations have been improved to reduce harvest impacts to salmon. Despite these efforts, harvest continues to be a factor that reduces fish abundance in the basin.

The above correction also is consistent with the bullet provided for Water Quality. Page 6 of the Revised NVS states that "[a]lthough 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." The survey should delete or replace the term "significantly," as it is used here. "Significant" is a term with a specific meaning for scientists (i.e., in the context of statistical analysis), but has a potentially varied meaning for lay respondents. Thirty percent more wild fish may not be "significant" if the population is still at risk of extinction.

Response:

The results from the pretest suggest that most respondents could understand the questions, followed instructions, and had adequate information to answer the SP conjoint questions. See Table 6 and Table 10 of Enclosure 2, Summary of Klamath Pilot Test Results, for additional detail. As such, additional edits to the text of the survey instrument were not made in response to this comment.

Comment 6:

Page 8 of the Revised NVS lists "Main Threats" for coho salmon. Under this heading, "habitat loss and degradation," "'fish diseases" and "overfishing" should definitely be added.

Response:
The results from the pretest suggest that most respondents could understand the questions, followed instructions, and had adequate information to answer the SP conjoint questions. See Table 6 and Table 10 of Enclosure 2, Summary of Klamath Pilot Test Results, for additional detail. As such, additional edits to the text of the survey instrument were not made in response to this comment.

Comment 7:
Page 8 of the Revised NVS states that "[t]he 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." This is incorrect as written. According to NMFS, there are nine coho populations in the Klamath River basin. These nine populations are part of the Southern Oregon/Northern California Coasts (SONCC) coho salmon Evolutionarily Significant Unit (ESU) that was listed as threatened in May 1997 by NMFS. PacifiCorp also notes that only one of these nine coho populations (i.e., the "Upper Klamath" population) is affected by "Klamath River dams blocking the river" (as listed under "Main Threats").

Response:
It should be noted that the three Klamath populations (Upper Klamath, Scott, and Shasta) would be most affected by proposed Klamath restoration agreements (which includes, but is not limited to dam removal) and that these three populations are at high risk of extinction (as found in the NMFS 2010 Biological Opinions (BO) due to low numbers, which have been found to be below depensation levels, in recent years. Detailed technical elaboration, as suggested above, is not considered suitable for a public survey.

The results from the pretest suggest that most respondents could understand the questions, followed instructions, and had adequate information to answer the SP conjoint questions. See Table 6 and Table 10 of Enclosure 2, Summary of Klamath Pilot Test Results, for additional detail. As such, additional edits to the text of the survey instrument were not made in response to this comment.

Comment 8:
Page 8 of the Revised NVS states that "[f]ish raised in hatcheries compete for food and habitat with wild coho salmon." For accuracy, this sentence should be changed to read: "Fish released into the river from hatcheries compete for food and habitat with wild coho salmon."

Response:
The results from the pretest suggest that most respondents could understand the questions, followed instructions, and had adequate information to answer the stated-preference conjoint questions. See Table 6 and Table 10 of Enclosure 2, Summary of Klamath Pilot Test Results for additional detail. As such, additional edits to the text of the survey instrument were not made in response to this comment.

Comment 9:

Page 9 of the Revised NVS states that "I am concerned about the Klamath coho salmon that are at high risk of extinction." However, NMFS describes coho salmon in the Klamath River as having only a moderate risk of extinction (NMFS, 2010). Thus, the question presents an extinction risk that is not scientifically supported and will create a misperception among respondents that coho salmon are currently at high risk of extinction. The question should be revised to state "I am concerned about the Klamath coho salmon that are at moderate risk of extinction."

Response:

The NMFS 2010 BO finds that the three population units most likely to be affected by the Klamath restoration plans (Upper Klamath, Scott, and Shasta) are at high risk of extinction due to low numbers, which have been found to be below depensation levels, in recent years.

Comment 10:

On page 10 of the Revised NVS, the survey states that "[I]ow water flows in the river were one of the main reasons" for the 2002 fish kill in the Klamath River. Actually, in addition to low flows, there were other important factors that contributed to this kill, including crowding of fish, elevated water temperature, degraded water quality, and disease.

Response:

This is true. However low flows likely contributed to high water temperatures and crowding. These conditions were favorable for the disease outbreak that occurred.

Comment 11:

On page 10 of the Revised NVS, regarding the 2006 cut in commercial salmon harvest, the survey states that " [t]he main reason was a lack of fish from the Klamath River, due in part to dams and low water flows." The "due in part" approach to this sentence does not provide balance. The sentence should also list other important factors leading to this cut in harvest, including poor ocean conditions, tributary and mainstem habitat degradation, disease, and water quality conditions. It is more appropriate to say that the ocean fishery is managed as a weak stock fishery, and the fishery was closed in 2006 because of the projected low numbers of fish returning to the Klamath River.

Response:

The results from the pretest suggest that most respondents could understand the questions, followed instructions, and had adequate information to answer the SP conjoint questions. See Table 6 and Table 10 of Enclosure 2, Summary of Klamath Pilot Test Results, for additional detail. As such, additional edits to the text of the survey instrument were not made in response to this comment.

Comment 12:

On page 12 of the Revised NVS, regarding Question 10, the question should be clarified such that it is clear that PacifiCorp also serves customers as "Rocky Mountain Power" in Utah, Wyoming, and Idaho.

Response:

We believe this level of detail may not be necessary to convey the major differences in the scenarios. The results from the pretest suggest that most respondents could understand the questions, followed instructions, and had adequate information to answer the SP conjoint questions. See Table 6 and Table 10 of Enclosure 2, Summary of Klamath Pilot Test Results, for additional detail. As such, additional edits to the text of the survey instrument were not made in response to this comment.

Comment 13:

Page 13 of the Revised NVS states that "[t]he agreement would also ... cost many 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 ... " The EIS being prepared for the Secretarial Determination will spend considerable effort evaluating the effects climate change will have on outcomes. The sentence should reflect this fact. We suggest the following: " ... 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 and exacerbate climate change ….”

Response:

The results from the pretest suggest that most respondents could understand the questions, followed instructions, and had adequate information to answer the SP conjoint questions. See Table 6 and Table 10 of Enclosure 2, Summary of Klamath Pilot Test Results, for additional detail. As such, additional edits to the text of the survey instrument were not made in response to this comment.

Comment 14:

Page 13 of the Revised NVS states that the agreement is intended to “improve water quality by increasing water oxygen levels in Upper Klamath Lake and the Klamath River.... "Interior appears to be making an assumption that Dissolved Oxygen (DO) levels can be increased in Upper Klamath Lake, which will alone improve water quality. Improving water quality in Upper Klamath Lake has been studied and debated for decades. To PacifiCorp's knowledge, no single treatment or solution has been put forth. PacifiCorp is currently engaged in organizing and funding a water quality workshop to bring national water quality experts together to discuss the appropriate technologies that may be available. To suggest that increasing DO levels is the only action necessary to improve water quality in Upper Klamath Lake and the Klamath River is incorrect and misleading.

Response:
The text in the survey does not imply that DO levels alone will be responsible for improvement water quality.

Comment 15:
Page 13 of the Revised NVS uses the term "many millions of dollars" to describe costs of implementing the Agreements. As used in the survey, the term "many millions" covers a range from several million (assistance to farmers) to $1.5 billion (cost of dam removal and KBRA actions). The use of the term "many millions" to describe impacts ranging over this wide range of value results in a false equivalency between the items discussed. PacifiCorp questions why the survey relies on a qualitative description (i.e. "many millions") for costs (which can be estimated with greater certainty), but uses precise numeric values when describing fish outcomes (which all parties agree are highly uncertain). For the public to make an informed decision on WTP, both anticipated fish benefits and costs need to be presented clearly and equitably. The use of the term "many millions of dollars" does not achieve this objective. PacifiCorp requests that our original comment regarding text changes be implemented as described in our comments of December 17, 2010.

Response:
We believe "Many millions of dollars" does not create a false equivalency. Costs are not known with certainty, as introduction of Congressional authorization is still pending more than 1 year after the agreements were signed.

Comment 16:
On page 13 of the Revised NVS, the Revised NVS does not adequately describe other impacts of dam removal. PacifiCorp suggests the following wording: "The agreement would also ... eliminate whitewater rafting supported by dam releases, the reservoir fishery, and other recreational activities supported by the dams; about 100 homes now located near the shores of the reservoirs would lose their lakefront view."

Response:
Whitewater rafting dependent on peak power releases primarily occurs on the upper portions of the Klamath River (i.e., Hell's Corner Reach). However, portions of the lower Klamath River would still support whitewater rafting and suggested text edits could give survey respondents the impression that whitewater rafting on the entire Klamath River would be eliminated. For rafting opportunities that would exist after dam removal and implementation of KBRA, rafters will be experiencing more natural flow conditions and will also be able to enjoy improved water quality conditions. We believe the text in the survey adequately captures the major impacts in sufficient detail such that individuals can evaluate the hypothetical scenarios.

Comment 17:
On pages 16 and 17 of the Revised NVS, the survey indicates that extinction risk for coho salmon will be reduced from "HIGH RISK" (25-50 percent extinction risk) to "LOW RISK"

(0-15 percent extinction risk) under ACTION PLAN A. The inclusion of very specific ranges presents information to the public that cannot be supported (or confirmed) with the analysis that is being pursued for the EIS. The analysis should use the qualitative ratings currently used by NMFS for describing possible outcomes.

Response:
The characterization of extinction risks for suckers and coho salmon under the NO ACTION Plan, ACTION PLAN A, and ACTION PLAN B are meant to convey complex biological information about the status of endangered species and to help ensure respondents view the range of hypothetical outcomes in a consistent manner. The information presented reflects the general scientific understanding and predictions, while at the same time communicating this information in terms that are meaningful and understandable to respondents. Given the complexity of this issue, use of percentages is reasonable. The survey instrument has undergone significant preliminary testing in focus groups and cognitive interviews, where, in all cases, participants did not make any comments on the manner in which extinction risks were characterized.

The results from the pretest suggest that most respondents could understand the questions, followed instructions, and had adequate information to answer the SP conjoint questions. See Table 6 and Table 10 of Enclosure 2, Summary of Klamath Pilot Test Results, for additional detail. As such, additional edits to the text of the survey instrument were not made in response to this comment.

Comment 18:
On pages 16 and 17 of the Revised NVS, regarding "Low Numbers of Wild Chinook Salmon and Steelhead Trout," the inclusion of "Low" biases the statement. The NVS should simply state that fish abundance levels will remain constant.

Response:
We disagree that the use of the word “low” biases the statement. The results from the pretest suggest that most respondents could understand the questions, followed instructions, and had adequate information to answer the SP conjoint questions. See Table 6 and Table 10 of Enclosure 2, Summary of Klamath Pilot Test Results, for additional detail. As such, additional edits to the text of the survey instrument were not made in response to this comment.

Comment 19:
On pages 16, 17, and 19 of the Revised NVS, the graphs display 100,000 fish each year. The title of the graphs needs to be consistent with the text. The text states that the number refers to wild fish. The graph labels also need to make this distinction.

Response:
The results from the pretest suggest that most respondents could understand the questions, followed instructions, and had adequate information to answer the SP conjoint questions. See Table 6 and Table 10 of Enclosure 2, Summary of Klamath Pilot Test Results, for additional

detail. As such, additional edits to the text of the survey instrument were not made in response to this comment.

Comment 20:

On pages 16 and 20 of the Revised NVS, it is crucial for the credibility and validity of the survey to accurately characterize the "NO ACTION Plan." The "NO ACTION Plan" in the survey is purely hypothetical, and does not realistically capture future actions that would occur in the absence of dam removal and KBRA actions, such as PacifiCorp Habitat Conservation Plan measures, Iron Gate hatchery conservation measures, future fish passage at PacifiCorp dams (if not removed), and TMDL implementation actions. The survey's portrayal of the "NO ACTION Plan" as being the status quo with a "current average" has the misleading effect of inflating the incremental environmental improvements of ACTION PLAN A and ACTION PLAN B.

Response:

We disagree with the comment. The non-use valuation survey's description of the "No Action" Alternative is meant to be consistent with the characterization of the No Action/No Project Alternative used in the EIS/EIR currently being prepared to evaluate the potential impacts of the KHSA along with the KBRA. Broadly, the EIS/EIR defines the No Action/ No Project Alternative as continuation of current operations with the dams remaining in place and PacifiCorp operating under the current annual license. Habitat Conservation Plans (HCP) should address population constraints to the extent practicable, which in this case would leave dams in place; therefore, effectiveness of the HCP in reversing population declines may be limited. The TMDL effectiveness will be compromised should dams remain in place, and technological solutions to water quality issues are highly uncertain at this time. Incremental environmental improvements may not result in recovery of coho, given the magnitude of the habitat and water quality issues that impact species survival.

The results from the pretest suggest that most respondents could understand the questions, followed instructions, and had adequate information to answer the SP conjoint questions. See Table 6 and Table 10 of Enclosure 2, Summary of Klamath Pilot Test Results, for additional detail. As such, additional edits to the text of the survey instrument were not made in response to this comment.

Comment 21:

On pages 17 and 21 of the Revised NVS, it should be made clear to respondents that the number of returning Chinook salmon and steelhead portrayed under the Action Plans are uncertain, hypothetical projections. We understand that DOI believes that the use of different versions of the survey represents a range of outcomes to address these uncertainties. However, PacifiCorp remains convinced that a respondent's WTP for a given Action Plan scenario could differ if he or she knew that the assumed outcomes of DOl's presented scenarios are highly uncertain. For example, on page 17 of the Revised NVS, in describing Action Plan A, the survey states that "[s]cientists expect that by 2060, there would be 100 percent more wild fish than today." PacifiCorp believes that a respondent's thinking on WTP would differ if the

survey alternatively stated: "If dam removal, restoration projects, and water sharing agreements were fully implemented and successful, many scientists expect that by 2060 there could be 100 percent more wild fish than today, although this outcome is uncertain given the various factors that affect these fish."

Response:
Incorporating multiple sources of uncertainty into the scenarios individuals are being asked to evaluate may complicate the survey and individuals' ability to respond. Implementing different versions of the survey is an appropriate approach to address the range of possible outcomes. This will provide empirical data on individuals' WTP.

The results from the pretest suggest that most respondents could understand the questions, followed instructions, and had adequate information to answer the SP conjoint questions. See Table 6 and Table 10 of Enclosure 2, Summary of Klamath Pilot Test Results, for additional detail. As such, additional edits to the text of the survey instrument were not made in response to this comment.

Comment 22:
On pages 17 and 21 of the Revised NVS, the survey should reflect that available scientific evidence shows a wide range of uncertainty and potential outcomes for fish population responses to dam removal and KBRA actions. For example, the Klamath River Expert Panel has concluded that the benefits to coho salmon of dam removal and the KBRA "are expected to be small, especially in the short-term (0-10 years after dam removal)." The Panel was more optimistic that dam removal and KBRA actions could result in increased numbers of steelhead in the long-term (decades) relative to the current population abundance in the Klamath system. However, the Panel stated that "if the dam removal and KBRA is implemented ineffectively, there may be no detectable response of steelhead."

Response:
The Panel's preliminary conclusion was confirmed in their final report. The action alternative is intended to reflect effective implementation of dam removal and KBRA. It was not feasible to incorporate varying degrees of effectiveness in the survey in addition to all the scenario variations already being considered.

Comment 23:
Page 23 of the Revised NVS asks respondents to respond to the statement: "Some of the plans cost too much compared to what they would deliver." How can a respondent respond to this statement when the costs presented are not specific and quantitative, but only qualitative?

Response:
The survey asks that individuals compare the specific cost their household is being asked to incur with the anticipated environmental improvement. Past experience with this type of survey has found that individuals are able to respond to this type of question.

ENCLOSURE 2

Summary of Klamath Pilot Test Results

The U.S. Department of Interior (DOI) submitted an Information Collection Request (ICR) to the Office of Management and Budget (OMB) to conduct a pretest of the Klamath Nonuse Valuation Survey. Following approval of the ICR in April 2011, the pretest was conducted in May and June of 2011. The primary goal of the pretest was to assess whether the survey instrument and data collection process worked as expected. The material below summarizes the results from the pretest. Overall, the data from the pretest suggest that the survey instrument worked well.

1. **Response rates**
    a. **The response rate is somewhat higher than expected, with all three geographic strata responding in similar proportions.**

The pretest followed the data collection plan described in the ICR and supporting statements. The households in the sample were mailed a pre-notification postcard informing them that their household had been selected to be part of the survey. Following the postcard, households received a packet containing a cover letter on DOI letterhead introducing the survey, a copy of the survey instrument, $2 incentive, and a postage-paid return envelope. A reminder postcard with information about the Web version of the survey and the respondent's username and password were sent a few weeks later. Finally, a second packet was sent that included a letter asking the respondent to complete the survey and providing the information about the Web version of the survey and a second copy of the survey instrument. Table 1 shows the mailing schedule for the documents.

Table 1. Pretest Survey Mailing Schedule

Type of Respondent	Date Mailed
Prenotification postcard mailing	April 20, 2011
First mailing of survey instrument	May 13–17, 2011
Reminder postcard including Web address	May 26, 2011
Second mailing of survey instrument	June 13, 2011

A total of 1,200 household addresses were selected for the pretest sample, divided evenly across three strata: (1) the 12-county area adjacent to the Klamath River, (2) the rest of Oregon and California, and (3) the rest of the United States. Table 2 shows the responses as of June 19, 2011. As described in Supporting Statement A submitted with the ICR, we expected a total of 263 responses based on the following assumptions: response rates of 20 percent of the households in the Klamath area and 15 percent of households from outside the Klamath area for the first mailing, and an additional 10 percent from the reminder postcard and second mailing. **As of June 19, 2011, we had received 320 completed surveys, for a combined response rate of 28 percent, after subtracting undeliverable surveys.**

Table 2. Responses as of June 19, 2011

	Number of Surveys
Paper surveys returned	314
Paper surveys returned blank	7
Web surveys	6
Undeliverable	51

Data from the first 276 surveys returned have been tabulated and analyzed to assess the results from the pretest. Tables 3 to 5 provide information on the responses by sampling strata, survey length, and undeliverable surveys by sampling strata. Each stratum supplies roughly one-third of the sample, although the response rates are slightly higher outside the Klamath area (Table 3). The long version of the survey has a somewhat higher response rate than the short version (Table 4). The number of undeliverable surveys returned is similar across the three strata (Table 5).

Table 3. Responses by Sampling Area

	Number of Responses	Percent of Sample
12-county Klamath area	83	30%
Rest of Oregon and California	94	34%
Rest of the U.S.	99	36%
Total	**276**	

Table 4. Response by Survey Length

	Number of Responses	Percent
Long version	147	53%
Short version	129	47%
Total	**276**	

Table 5. Undeliverable Surveys by Sampling Area

	Number of Responses	Percent
12-county Klamath area	15	33%
Rest of Oregon and California	14	31%
Rest of the U.S.	16	36%
Total	**45**	

2. **Was the survey instrument understandable to the public and to people outside the Klamath River Basin?**

    a. **The results from the pretest suggest that most respondents could understand the questions, followed instructions, and had adequate information to answer the stated-preference conjoint questions.**

As part of the survey, respondents were asked their level of agreement with a series of statements related to the choices they made in the conjoint. There were two statements that dealt directly with comprehension, presented in Table 6. Looking first at the statement "The descriptions of the plans were hard to understand," only 14 percent of the Klamath area respondents agreed with the statement and 10 percent or fewer of the respondents from outside the Klamath area. For the statement "The survey provided me with enough information to make a choice between the options shown," a similar number of respondents disagreed with the statement (10 percent in the Klamath area and the rest of the United States and 11 percent in the rest of California and Oregon).

Table 6. Responses to Comprehension Questions

The descriptions of the plans were hard to understand.					
	Strongly Agree	**Agree**	**Neither Agree nor Disagree**	**Disagree**	**Strongly Disagree**
12-county Klamath Area	4%	10%	25%	38%	24%
Rest of Oregon and California	0%	9%	23%	49%	19%
Rest of the U.S.	2%	8%	27%	45%	18%
Total	**2%**	**9%**	**25%**	**44%**	**20%**

The survey provided me with enough information to make a choice between the options shown.					
	Strongly Agree	**Agree**	**Neither Agree nor Disagree**	**Disagree**	**Strongly Disagree**
12-county Klamath Area	20%	47%	22%	9%	2%
Rest of Oregon and California	13%	58%	18%	11%	0%
Rest of the U.S.	16%	55%	19%	7%	3%
Total	**16%**	**53%**	**20%**	**9%**	**2%**

We also looked at the written comments provided at the end of the survey for evidence that the survey was hard to understand or biased. A total of 77 respondents out of the 276 wrote additional comments at the end of the survey (33 comments from Klamath area respondents, 22 comments from the rest of Oregon and California, and 21 comments from the rest of the United States). As expected, there are comments on both sides of the issue, as well as comments that were unrelated to the topic of the survey. In Table 7, comments related to the overall clarity of the survey and potential biases are presented. The comments represent anecdotal information on how the survey was received. Overall, there were very few comments charging bias, and a number of comments that the survey was interesting and well-written. A number of respondents expressed thanks for the opportunity to complete a survey on the topic, especially among the Klamath area respondents.

Table 7. Handwritten Comments at the End of the Survey.

Comment	Geographic Area
We would like say thank you for this opportunity. The klamath river is the life blood of our area. It is everything to my wife's family.	Klamath Area
You didn't address the main problem, the shasta river, scott river, & salmon river-history has said the shasta was the main spawning river for salmon. I still think we should be able to do both thanks for the survey.	
Thanks for opportunity to provide input.	
Your questions are slanted	
I think you should consider using a similar survey for the san joaquin river restoration program in california.	
I've read a lot of form letters and surveys and i was impressed with how plainly worded and clear this one was. It also made me curious to find out more about this issue.	Rest of Oregon and California
I am glad to see a survey such as this being sent to gather public opinion, unfortunately, most people don't have a good biology background to grasp what is happening to our rivers and wetlands. Very sad!	
This survey does not provide me the most important information- will water supply be adequate after dam removal. That is my top concern. Without that info, I am not able to choose either plan a/b or no action.	
This survey is completely one-sided to support the out of control environmentalists & their allies in the federal government. There was absolutely no consideration of the plight of the farmers that have no water to farm their land…	
… This was an excellent survey. I wish ballots and/or info about voting was as clear and well written.	
I found the survey very informative.	Rest of the United States

3. Did the levels for the conjoint questions work?

a. Overall, roughly two-thirds of the sample voted in favor of the action plan, but as expected, this percentage was lower when the cost of the plan (bid amount) was higher.

Table 8 presents the percent of respondents voting for the action plans and the no action plan by geographic strata. Overall, without accounting for differences in attribute levels across the plans, 63 percent of the respondents selected a plan and 37 percent selected no action (last column of Table 8).

Table 9 breaks down the percent voting for a plan by the cost of the plan for the full sample and for the three geographic strata. Pooling the three geographic strata, the percent voting for a plan remains steady until the $90 cost level. By geographic strata, the percent selecting a plan in the rest of the United States drops earlier at $48 cost level (note that the number of respondents in each cell is small, so we do not want to place too much weight on the results by strata).

b. Based on the responses to the conjoint questions, we propose to change the levels of the cost attribute to $12, $48, $90, and $168, instead of $12, $24, $48, $90.

As shown in Table 9, currently the highest bid amount ($90) represents roughly the median willingness to pay (WTP) for the total sample (i.e., 50 percent vote for the plan). Ideally, we would like the range of cost levels to include WTP for the majority of respondents, not just for those with WTP at or below the median. The percent voting for the plan should decline as the cost increases, and we would like to select a top cost level where roughly 30 percent or fewer vote for the plan. [1]

Given these results, we propose adding a higher cost level that would be closer to the right-hand tail of the distribution. A cost of $168 per year ($14 per month) would be substantially higher and should result in a lower percent selecting the plan. However, adding another level to the cost attribute (for a total of 5 levels), complicates the experimental design and increases the sample size needed to obtain the same level of precision in the estimates. Therefore, we propose dropping the $24 cost level. The percent selecting a plan does not change for any of the three

[1] For example, in a similar stated preference study of a fish restoration program in the Adirondacks, Banzhaf et al. (2006) included bids that targeted the median, the 30th and 70th percentiles of the WTP distribution. Similar to our study, roughly 70 percent voted for the plan at $25 and 50 percent voted for the plan at $90. In their study roughly 30 percent voted for the plan at $250.

geographic strata between $12 and $24, so dropping the dollar amount should not cause problems in the analysis.

Table 8. Reponses to Conjoint Questions by Strata

	12-County Klamath Area	Rest of Oregon and California	Rest of the U.S.	Total
Voted for no action	50%	33%	29%	37%
Voted for plan	50%	67%	71%	63%

Table 9. Vote by Cost of Plan

	$12	$24	$48	$90
Voted for plan, Total Sample	66%	69%	67%	49%
Voted for plan, Klamath Area	51%	50%	64%	32%
Voted for plan, Rest of Oregon and California	73%	73%	72%	51%
Voted for plan, Rest of United States	76%	78%	63%	61%

c. The lower rate of pro-plan voting by respondents in the Klamath area reflects different attitudes and perceptions about the effectiveness and desirability of Klamath Basin restoration activities

The finding that respondents living closest to the restoration area have a lower average propensity to vote for the plans (and hence a lower WTP) runs somewhat counter to the findings from other similar studies. For example, Schaafsma (2008) identifies 18 contingent valuation and choice experiment studies applied to environmental programs in the United States or Europe that have found statistically significant "distance-decay" effects, where WTP is negatively related to a respondent's distance from the program area. For this project, the most directly

relevant and comparable study is the Loomis (1996) analysis of the Elwha Dam removal program. That study used results from a nationwide mail CVM survey to estimate average household WTP for increases in native salmon populations resulting from the program. It found that distance (from the respondent's residence to the Elwha River) had a small, but negative and statistically significant effect on WTP. For example, Loomis estimated that average household WTP by Washington residents was roughly 15 percent higher than for residents in the rest of the United States ($78 compared to $68 in 1995 dollars).

One of the most important issues in a conjoint survey like the Klamath non-use survey is to ensure, to the extent possible, that individuals responding to the survey are presented with the same information. In short, the goal is for individuals to value a good that is presented consistently across all individuals that receive the survey. However, the fact that Klamath Basin residents may have a lower WTP than residents outside of the Klamath Basin does not imply that they are valuing a different good, but that their stated values may account for a different pre-survey information set about the contentious history behind the development of the Klamath Basin agreements due to their proximity to the resource. The attitudinal and debriefing questions in the survey were designed to control for how these factors influence WTP and could be expected to vary across the three strata.

Our pretest findings suggest that there are important differences in the attitudes and perceptions of individuals living near the Klamath Basin compared to those living farther away. The results in Table 10 highlight these differences. In particular, respondents in the Klamath area stratum are significantly more likely to believe that (1) the plans would hurt the local economy, (2) the plans would not work as described in the survey, and (3) removing Klamath dams is a bad idea. Despite being presented with the same information in the survey, Klamath area residents tend to exhibit much more skepticism about the effectiveness and desirability of the plans.

We find that these differences account at least in part for the lower average WTP by Klamath area residents. For example, Table 11 compares rates of pro-plan voting across strata, controlling for differences in perceptions about whether the plans would work as described.

Comparing across only the respondents who agree that the plans would work as described, Klamath area residents actually have the highest propensity to vote for the plan.

In our analysis of the final survey data, we will continue to control for these differences in attitudes and perceptions and to investigate their role in explaining differences in WTP. We will also examine differences in other factors, in particular socioeconomic conditions, to determine their role.

Table 10. Percentage of Respondents Who Agree or Strongly Agree with Statement by Strata

	12-County Klamath Area	Rest of Oregon and California	Rest of the U.S.	Total
	N=83	N=94	N=99	N=276
q18a "My choices would be different if the economy in my area were better"	24.1%	24.5%	22.2%	23.6%
q18b "It is important to restore the KRB, no matter how much it costs"	22.9%	33.0%	35.4%	30.8%
q18c "I do not think I should have to contribute to the restoration of the KRB"	38.6%	17.0%	35.4%	30.1%
q18d "I am concerned that the plans would hurt the economy in the KRB"	37.4%	23.4%	18.2%	25.7%
q18e "The descriptions of the plans were hard to understand"	13.3%	8.5%	10.1%	10.5%
q18f "I do not believe that the plans will actually increase the number of fish as described"	41.0%	10.6%	12.1%	20.3%
q18g "Removing the dams from KR is a bad idea"	44.6%	19.2%	15.2%	25.4%
q18h "Some of the plans cost too much compared to what they would deliver"	45.8%	25.5%	24.2%	31.2%

q18i "The changes offered by the plans happen too far in the future for me to care"	19.3%	10.6%	15.2%	14.9%
q18j "The survey provided me with enough info to make a choice b/w the options shown"	65.1%	69.2%	70.7%	68.5%

Table 11. Percentage of Respondents Choosing Action Plan A (over No Action) by Strata and by Belief that Plan Would Work as Described

	12-County Klamath Area	Rest of Oregon and California	Rest of the U.S.	Total
Respondents who agree with "I do not believe that the plans will actually increase the number of fish as described"	11.8% of 34	20.0% of 10	8.3% of 12	12.5% of 56
Respondents who do NOT agree with "I do not believe that the plans will actually increase the number of fish as described"	79.6% of 49	77.4% of 84	78.2% of 87	78.2% of 220
All respondents	51.8% of 83	71.3% of 94	69.7% of 99	64.9% of 276

4. **Was there a difference between the long version of the survey (two conjoint questions) and the short version of the survey (one conjoint question)?**

    a. **The percent selecting Plan A in the long and short versions of the survey is the same, suggesting that the presence of the second conjoint question in the long version did not affect the responses to the first question (see Table 12).**

Table 12. Responses to Conjoint Questions

	Long Version (N=142)	Short Version (N=123)
Voted for Plan A	68%	67%

5. **Additional information on votes for no action.**

   a. **We propose to add the statement with "I would not vote for the action plans even if there were no added cost to my household" to question 19 and drop "I voted for NO ACTION because I believe my taxes are already too high."**

After the conjoint questions, question 19 (in the long version of the survey) reads:

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

Question 19 was included for sensitivity analysis. Such debriefing questions are standard practice for stated-preference surveys. These and other similar questions about the respondents choices were included in this survey to look at the impact of opinions about government spending and taxes on responses. Comparing responses to the two statements, the correlation coefficient is 0.87. Because the responses are highly correlated, we propose replacing the second statement with "I would not vote for the action plans even if there were no added cost to my household." This question would provide information about respondents who may not have a WTP greater than zero, and we feel it would provide more information for sensitivity analysis.

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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. The reports prepared for this study will summarize findings across the sample and will not associate responses with a specific individual. We will not provide information that identifies you to anyone outside the study team, except as required by law. Your responses will be stored separately from your name and address, and when analysis of the questionnaire is completed, all name and address files will be destroyed.

A Federal agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Burden estimate statement: Public reporting for this form is estimated to average 30 minutes per response. Direct comments regarding the burden estimate or any other aspect of this form to: Ben Simon, MS3530-MIB, 1849 C Street N.W., Washington, DC 20240 or Benjamin_Simon@ios.doi.gov.

OMB Control #1090-0010
Expiration Date: 12/31/2013

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

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 could affect the basin and potentially your household. 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 farms, fisheries (commercial, recreational, and tribal), dams for hydroelectric power, and endangered fish species. Its rivers, lakes, reservoirs, and wildlife refuges also support many different kinds of recreation.

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.

General Instructions

- If possible, use a pencil or dark ink pen to complete the survey.
- Completely black out in the box beside your answer choice.

INCORRECT	CORRECT
☒ ☑	■

- If you make an error, erase it cleanly and then mark the box beside your correct answer choice. If you are using a pen, mark through the incorrect response and mark the correct one normally.
- Do not make any stray marks.

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 120,000 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 16,000 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. Six National Wildlife Refuges in the basin provide stopover habitat for over 1 million migrating 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:

- **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 has been the third largest producer of salmon on the U.S. West Coast.
- **Farmland Irrigation.** Since 1905, the U.S. Bureau of Reclamation's Klamath Irrigation Project has provided water for farms in the basin. It currently supplies water to 190,000 acres of farmland. Another 310,000 acres of farmland are irrigated with water that does not come from the Klamath Irrigation Project.
- **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.
- **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 birdwatching and waterfowl hunting opportunities. 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, fill in the boxes next to 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 different fish in the basin.

Chinook salmon and steelhead trout are two important fish found in the basin. They spend some 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 wild 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 (not in order of importance):

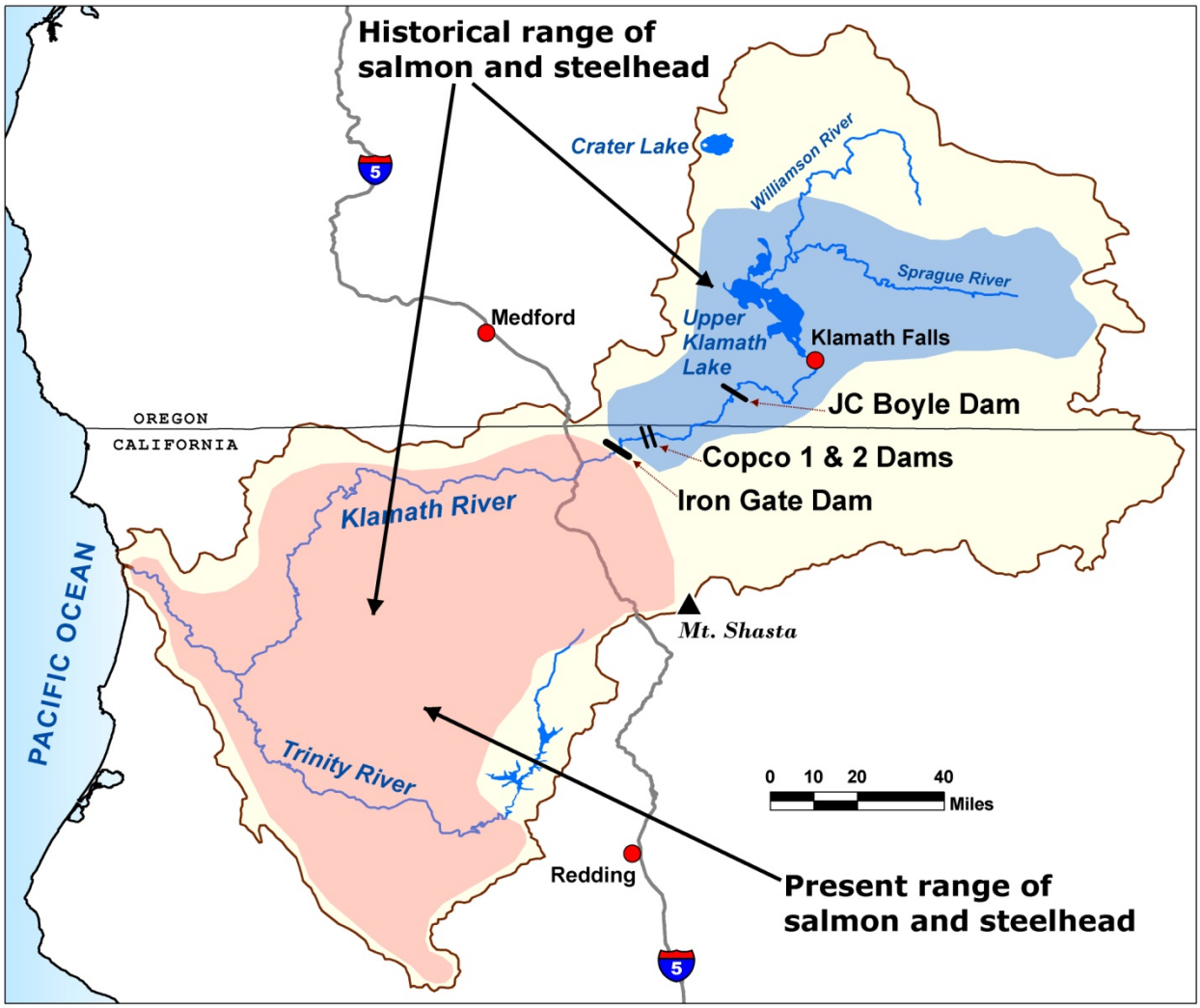
- **Dams on the Klamath River.** Before the dams were built, the fish migrated into streams in both the pink and blue areas shown on the map on the next page. Today they migrate only into the pink area. They are blocked from the blue area by Iron Gate Dam and the other hydroelectric dams shown on the 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 Quality.** Algae that grow in the warm waters of Upper Klamath Lake in the summer can harm or kill fish. Warm water in the reservoirs can harm salmon that return to the river to spawn in the fall. Some human activities in the basin, such as logging, farming, mining, and road building also affect water quality. Despite efforts to better manage these 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.

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.

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

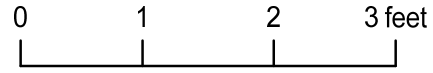


Historical vs. Present Range of Returning Salmon and Steelhead Trout

Threatened and Endangered Fish in the Klamath River Basin

Some fish in the basin are at risk of becoming extinct because of water and habitat 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 • 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 and poor water quality in the Klamath River • Fish raised in hatcheries compete for food and habitat with 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.

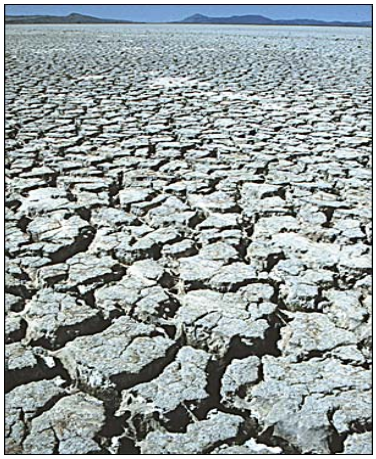
I am concerned about the Klamath coho salmon that are at high risk of extinction.

- ❑ 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. With not enough water for both farms and endangered fish, 85% of the farmland supported by the Klamath Irrigation Project faced severe water cuts. Many millions of dollars in federal aid were spent to help the farm families and communities affected by crop losses.



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 in ocean waters off of California and Oregon 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. Many millions of dollars in federal aid were spent to help the fishing families and communities affected by the economic hardship.

The conflicts created by these events drew national attention and greatly increased public concern about the river basin. Many different parties filed lawsuits. At the same time, four dams on the river needed government relicensing. 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.

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, most of these parties reached an agreement, including the states of Oregon and California, tribes, counties, and farming, fishing, and environmental organizations. A few parties, including one tribe and one county, have not 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

- Dam removal alone is not enough to restore fish populations. Fish habitat also needs to be further improved. So, 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.

3. Water Sharing Agreement

- The agreement sets a permanent and annual schedule for water deliveries to farms and for water releases to the river.
- By removing uncertainty about water sharing, the agreement helps farmers, fish, and the people who rely on fish for commercial, recreational, subsistence, and ceremonial uses.

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 PacifiCorp customers in Oregon and California,
- Oregon and California for dam removal, and
- the federal government for fish habitat improvement.

Under this agreement, Oregon and California residents and businesses would on, average, pay 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 is intended to

- reduce uncertainty over water sharing and avoid future conflict and lawsuits among tribes, farmers, fishermen, and other parties, which cost the public many millions of dollars;
- encourage a more coordinated and effective approach to restoring fish populations, by providing long-term and stable funding for these efforts;
- 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 by increasing water oxygen levels in Upper Klamath Lake and the Klamath River, and by eliminating the reservoirs, where algae blooms in the summer can harm human health;
- create more natural free-flowing river conditions along most of the Klamath River; and (remove Help tribes, farmers, fishermen… text)
- have no effect on flood control, since the dams are not used for this reason.

The agreement would also

- cost many millions of dollars to
  - deconstruct and remove the dams;
  - 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; and
  - restore fish habitat, improve water quality, and encourage farmers to use less water;
- release the sediment behind the dams into the Klamath River during dam removal, which would affect fish and water quality for 1–2 years; and
- eliminate recreational activities supported by the dams; 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. (*Fill in the box that matches your answer. If you have no opinion, fill in 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	☐	☐	☐	☐	☐	☐
When humans interfere with nature, it often produces disastrous results	☐	☐	☐	☐	☐	☐
Humans should modify the natural environment to suit their needs	☐	☐	☐	☐	☐	☐
The balance of nature is very delicate and easily upset	☐	☐	☐	☐	☐	☐
The decision to develop natural resources should be based more on economic grounds than on environmental grounds	☐	☐	☐	☐	☐	☐
It is important to use rivers as a source of electric power	☐	☐	☐	☐	☐	☐
It is important for rivers to provide places for recreation	☐	☐	☐	☐	☐	☐
It is important for rivers to provide healthy habitat for fish	☐	☐	☐	☐	☐	☐
It is important to use rivers as a source of water for irrigation	☐	☐	☐	☐	☐	☐
It is important for rivers to provide Indian tribes with traditional fishing areas	☐	☐	☐	☐	☐	☐
It is important for rivers to support commercial fishing	☐	☐	☐	☐	☐	☐

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 that could have different effects on each of the fish species and they have different costs. Some of these costs would need to be paid by households in California, Oregon, and the rest of the U.S.

On the next two pages, we will ask you to compare two options: **NO ACTION** and one possible plan that we will call **ACTION PLAN A**.

On the page after that, we will ask you to consider what you would do if these were the only options available and 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 not collected 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.

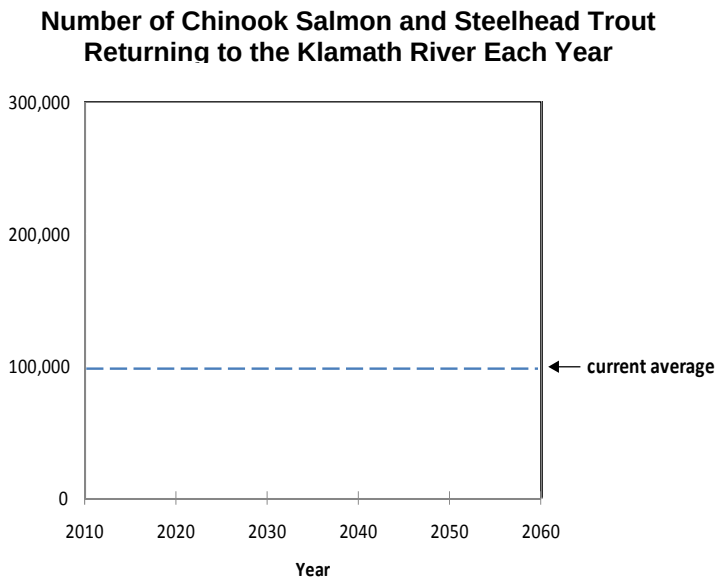
Q13. Have you ever personally had the opportunity to vote on a similar type of government natural resource management program?

- ❑ Yes
- ❑ No
- ❑ I don't know

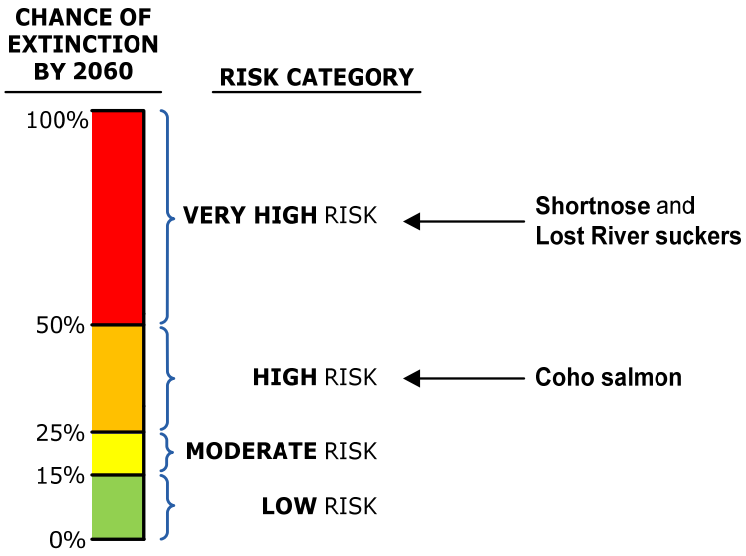
NO ACTION Plan

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

- **LOW 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.
  - Scientists expect that wild populations of these fish will remain at low levels in the future.



- **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).

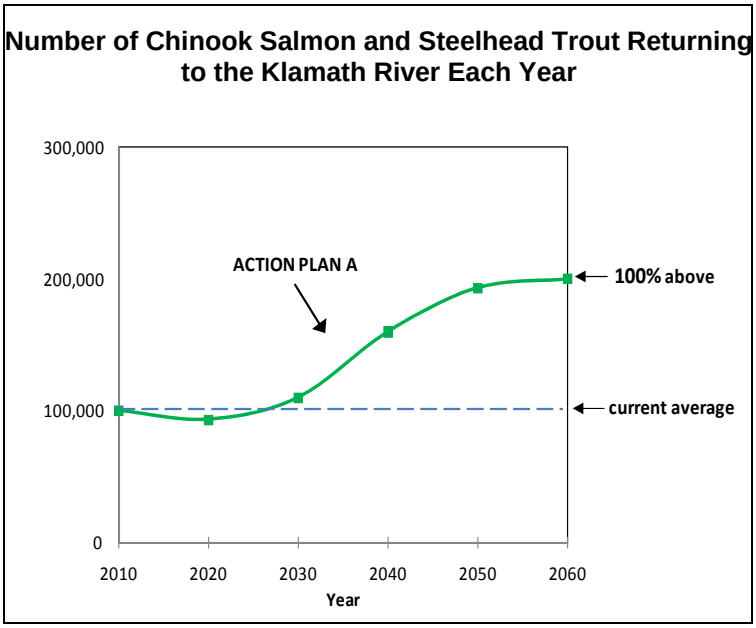


- **NO ADDED COST TO YOUR HOUSEHOLD:** There would be no added cost for your household, because the agreement would not be implemented.

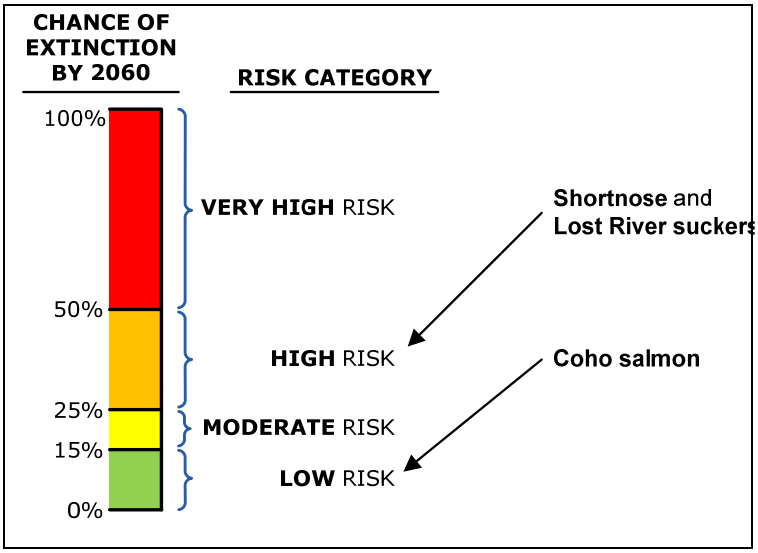
ACTION PLAN A

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 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:**

  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 2012). 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.

Fill in the box next to your choice.

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.

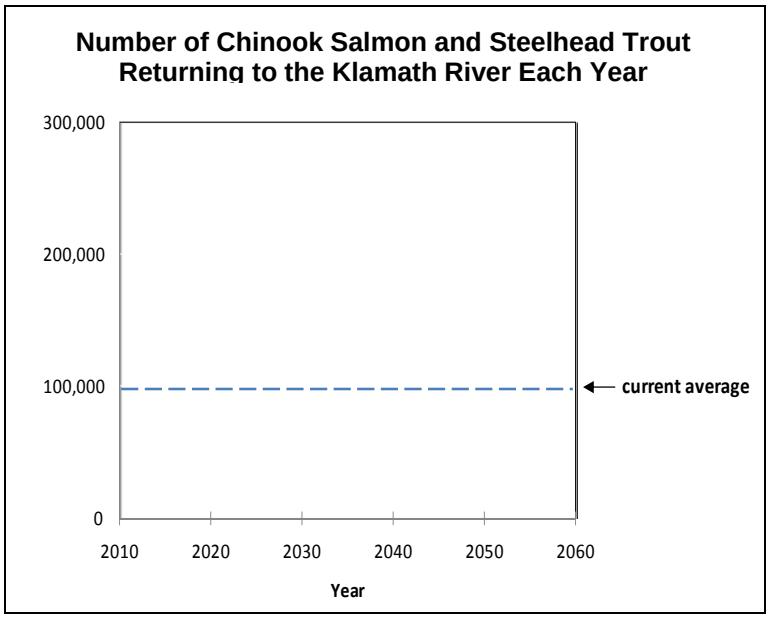
Instead, the next two pages will describe **ACTION PLAN B** and compare it to the NO ACTION plan. ACTION PLAN B involves a different set of fish restoration projects than ACTION PLAN A.

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

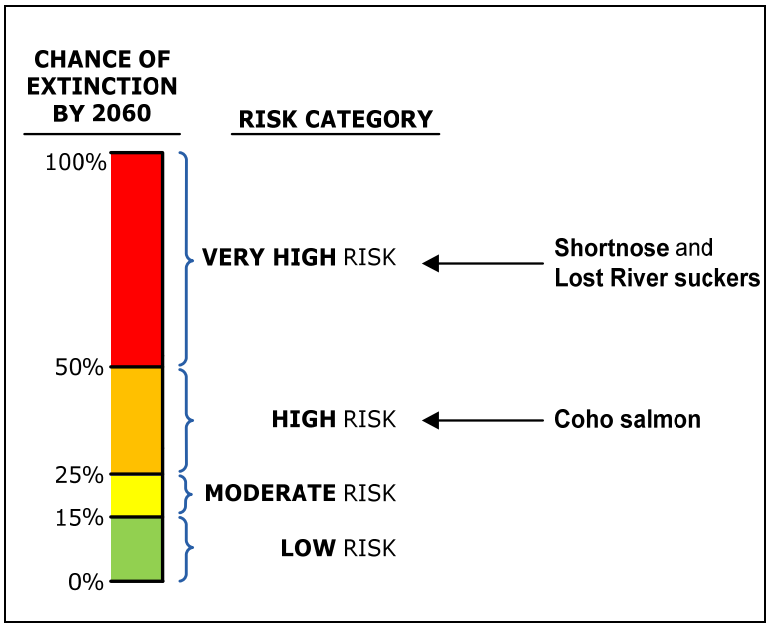
NO ACTION Plan

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

- **LOW 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.
  - Scientists expect that wild populations of these fish will remain at low levels in the future.



- **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).

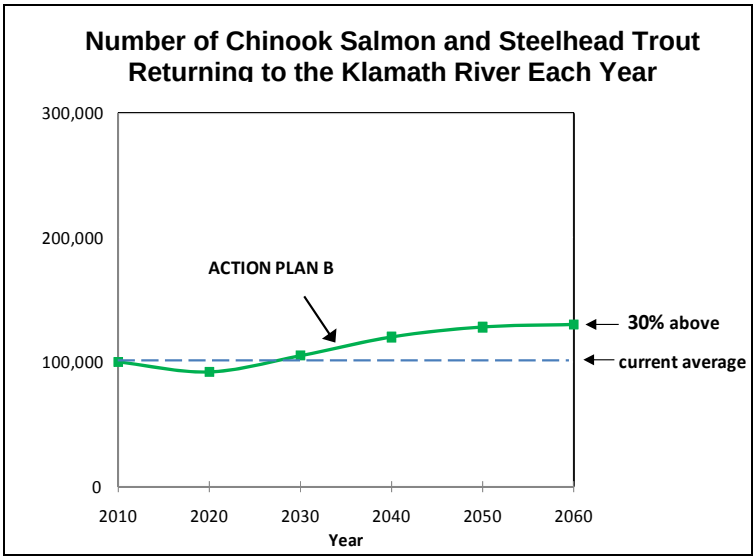


- **NO ADDED COST TO YOUR HOUSEHOLD:** There would be no added cost for your household, because the agreement would not be implemented.

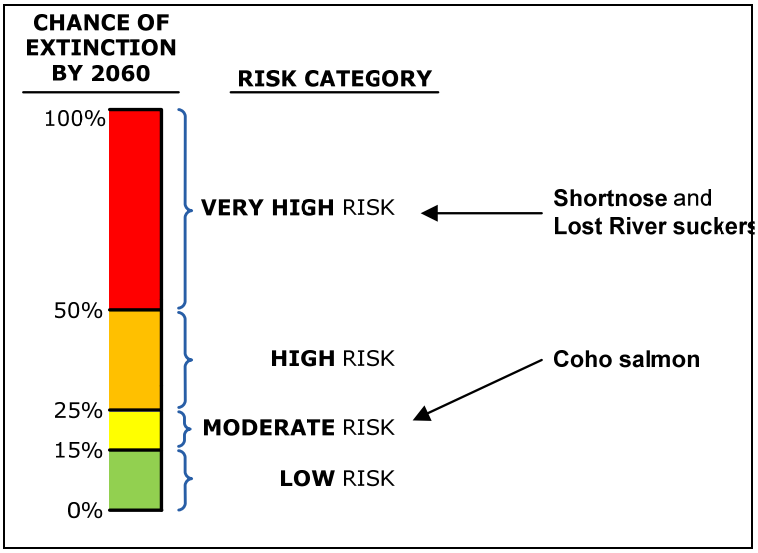
ACTION PLAN B

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 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:**

  Assume that for your household (and similar households in your area) the plan would cost you an additional **$12 per year** for the next 20 years (beginning in 2012). That is the same as **$1 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 $12 each year to your household. Voting for PLAN B would mean that you would have $12 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.

Fill in the box next to your choice.

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. (*Fill in the box 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.	☐	☐	☐	☐	☐
It is important to restore the Klamath River Basin, no matter how much it costs.	☐	☐	☐	☐	☐
I do not think I should have to contribute to the restoration of the Klamath River Basin.	☐	☐	☐	☐	☐
I am concerned that the plans would hurt the economy in the Klamath River Basin.	☐	☐	☐	☐	☐
The descriptions of the plans were hard to understand.	☐	☐	☐	☐	☐
I do not believe that the plans will actually increase the number of fish as described.	☐	☐	☐	☐	☐
Removing the dams from the Klamath River is a bad idea.	☐	☐	☐	☐	☐
Some of the plans cost too much compared to what they would deliver.	☐	☐	☐	☐	☐
The changes offered by the plans happen too far in the future for me to really care.	☐	☐	☐	☐	☐
The survey provided me with enough information to make a choice between the options shown.	☐	☐	☐	☐	☐

Q19. If you voted for NO ACTION in either of the two choices, please fill in the box to 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.	☐	☐	☐	☐	☐
I would not vote for the action plans even if there were no added cost to my household	☐	☐	☐	☐	☐

Q20. If you voted for ACTION PLAN A or ACTION PLAN B, please fill in the box to 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.	☐	☐	☐	☐	☐
I voted for the action plan more for future generations than for myself.	☐	☐	☐	☐	☐

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

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

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.

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 fill in the box for 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

About You and Your Household

Finally, we would like to ask you a few questions about you and your household. Responses to these questions will be used only for statistical purposes and to compare respondents to this survey with the U.S. population as a whole. The reports prepared for this study will summarize findings across the sample and will not associate responses with an individual. Your answers will not be saved or stored in a way that can be associated with your name or address.

Q25. Are you male or female?

- ❑ Male
- ❑ Female

Q26. What is your age?

_____ years old

Q27. What is your current marital status?

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

Q28. How many children under age 18 are living at your home?

_____ children

Q29. What was your total pre-tax household income, including all earners in your household, in 2010?

- ❑ 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

Q30. What is the highest degree or level of school you have completed?

- ❑ No high school diploma
- ❑ High school diploma or GED
- ❑ Some college credit or college degree
- ❑ Some graduate school or professional school credit or a graduate or professional degree

Q31. 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: _____

Q32. Which of the following categories best describes your household employment status? *(Please fill in the box next to all that apply.)*

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

Q33. Are you of Hispanic, Latino, or Spanish origin?

- ❑ Yes
- ❑ No

Q34. What is your race? (Please fill in the box next to one or more.)

- ❑ American Indian or Alaska Native
- ❑ Asian
- ❑ Black or African American
- ❑ Native Hawaiian or other Pacific Islander
- ❑ White

Q35. 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

Q36. Have you or any member of your family ever worked for any of the following industries or jobs? *(Please fill in the box next to all that apply.)*

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

Q37. 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

Q38. 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

Q39. Has someone in your household been jobless in the past year?

- ❑ Yes
- ❑ No
- ❑ I don't know

Q40. 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 fill in the box for "I'm not sure what my bill was, this is an estimate." If you do not pay an electric bill, fill in 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

Q41. 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

Q42. 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 1-800-334-8571 x27746 or e-mail us at Klamath-survey@rti.org.

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

_____
_____
_____
_____
_____
_____