

# NOTICE OF OFFICE OF MANAGEMENT AND BUDGET ACTION

Date 12/05/2013

Department of Commerce  
National Oceanic and Atmospheric Administration

FOR CERTIFYING OFFICIAL: Simon Szykman  
FOR CLEARANCE OFFICER: Jennifer Jessup

In accordance with the Paperwork Reduction Act, OMB has taken action on your request received 01/30/2013

ACTION REQUESTED: New collection (Request for a new OMB Control Number)

TYPE OF REVIEW REQUESTED: Regular

ICR REFERENCE NUMBER: 201212-0648-013

AGENCY ICR TRACKING NUMBER:

TITLE: PILOT TEST OF THE ELWHA RIVER DAM REMOVAL AND FLOODPLAIN RESTORATION ECOSYSTEM SERVICE VALUATION PROJECT SURVEY

LIST OF INFORMATION COLLECTIONS: See next page

OMB ACTION: Approved with change

OMB CONTROL NUMBER: 0648-0683

The agency is required to display the OMB Control Number and inform respondents of its legal significance in accordance with 5 CFR 1320.5(b).

EXPIRATION DATE: 12/31/2015

DISCONTINUE DATE:

BURDEN:	RESPONSES	HOURS	COSTS
Previous	0	0	0
New	1,300	650	0
Difference			
Change due to New Statute	0	0	0
Change due to Agency Discretion	1,300	650	0
Change due to Agency Adjustment	0	0	0
Change due to PRA Violation	0	0	0

TERMS OF CLEARANCE: This is a one-time approval for this pilot study ICR. OMB concurs with the agency that the results from this pilot study "will not be used to make agency decisions or to inform policies affecting the dam removal, restoration activities, or groups impacted by the dam removal and restoration on the Elwha River, as these activities are already underway. Rather, it is designed to capitalize on the planned dam removal and restoration efforts to allow NOAA to better understand the public's comprehension about ecosystem service measures and the value the public places on these types of ecosystem services associated with the river habitat restoration."

OMB Authorizing Official: Dominic J. Mancini  
Acting Deputy Administrator,  
Office Of Information And Regulatory Affairs

List of ICs

IC Title	Form No.	Form Name	CFR Citation
Elwha River Restoration Survey	NA, NA	Elwha River Restoration Survey, Elwha River Restoration Survey	

# PAPERWORK REDUCTION ACT SUBMISSION

**Please read the instructions before completing this form. For additional forms or assistance in completing this form, contact your agency's Paperwork Clearance Officer. Send two copies of this form, the collection instrument to be reviewed, the supporting statement, and any additional documentation to: Office of Information and Regulatory Affairs, Office of Management and Budget, Docket Library, Room 10102, 725 17th Street NW, Washington, DC 20503.**

<p>1. Agency/Subagency originating request</p>	<p>2. OMB control number <span style="float: right;">b. <input type="checkbox"/> None</span>                  a. _____ - _____</p>
<p>3. Type of information collection (<i>check one</i>)</p> <p>a. <input type="checkbox"/> New Collection</p> <p>b. <input type="checkbox"/> Revision of a currently approved collection</p> <p>c. <input type="checkbox"/> Extension of a currently approved collection</p> <p>d. <input type="checkbox"/> Reinstatement, without change, of a previously approved collection for which approval has expired</p> <p>e. <input type="checkbox"/> Reinstatement, with change, of a previously approved collection for which approval has expired</p> <p>f. <input type="checkbox"/> Existing collection in use without an OMB control number</p> <p>For b-f, note Item A2 of Supporting Statement instructions</p>	<p>4. Type of review requested (<i>check one</i>)</p> <p>a. <input type="checkbox"/> Regular submission</p> <p>b. <input type="checkbox"/> Emergency - Approval requested by _____ / _____ / _____</p> <p>c. <input type="checkbox"/> Delegated</p>
	<p>5. Small entities                  Will this information collection have a significant economic impact on a substantial number of small entities? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
	<p>6. Requested expiration date</p> <p>a. <input type="checkbox"/> Three years from approval date b. <input type="checkbox"/> Other Specify: _____ / _____</p>
<p>7. Title</p>	
<p>8. Agency form number(s) (<i>if applicable</i>)</p>	
<p>9. Keywords</p>	
<p>10. Abstract</p>	
<p>11. Affected public (<i>Mark primary with "P" and all others that apply with "x"</i>)</p> <p>a. <input type="checkbox"/> Individuals or households d. <input type="checkbox"/> Farms</p> <p>b. <input type="checkbox"/> Business or other for-profit e. <input type="checkbox"/> Federal Government</p> <p>c. <input type="checkbox"/> Not-for-profit institutions f. <input type="checkbox"/> State, Local or Tribal Government</p>	<p>12. Obligation to respond (<i>check one</i>)</p> <p>a. <input type="checkbox"/> Voluntary</p> <p>b. <input type="checkbox"/> Required to obtain or retain benefits</p> <p>c. <input type="checkbox"/> Mandatory</p>
<p>13. Annual recordkeeping and reporting burden</p> <p>a. Number of respondents _____</p> <p>b. Total annual responses _____</p> <p>    1. Percentage of these responses collected electronically _____ %</p> <p>c. Total annual hours requested _____</p> <p>d. Current OMB inventory _____</p> <p>e. Difference _____</p> <p>f. Explanation of difference</p> <p>    1. Program change _____</p> <p>    2. Adjustment _____</p>	<p>14. Annual reporting and recordkeeping cost burden (<i>in thousands of dollars</i>)</p> <p>a. Total annualized capital/startup costs _____</p> <p>b. Total annual costs (O&amp;M) _____</p> <p>c. Total annualized cost requested _____</p> <p>d. Current OMB inventory _____</p> <p>e. Difference _____</p> <p>f. Explanation of difference</p> <p>    1. Program change _____</p> <p>    2. Adjustment _____</p>
<p>15. Purpose of information collection (<i>Mark primary with "P" and all others that apply with "X"</i>)</p> <p>a. <input type="checkbox"/> Application for benefits e. <input type="checkbox"/> Program planning or management</p> <p>b. <input type="checkbox"/> Program evaluation f. <input type="checkbox"/> Research</p> <p>c. <input type="checkbox"/> General purpose statistics g. <input type="checkbox"/> Regulatory or compliance</p> <p>d. <input type="checkbox"/> Audit</p>	<p>16. Frequency of recordkeeping or reporting (<i>check all that apply</i>)</p> <p>a. <input type="checkbox"/> Recordkeeping b. <input type="checkbox"/> Third party disclosure</p> <p>c. <input type="checkbox"/> Reporting</p> <p>    1. <input type="checkbox"/> On occasion 2. <input type="checkbox"/> Weekly 3. <input type="checkbox"/> Monthly</p> <p>    4. <input type="checkbox"/> Quarterly 5. <input type="checkbox"/> Semi-annually 6. <input type="checkbox"/> Annually</p> <p>    7. <input type="checkbox"/> Biennially 8. <input type="checkbox"/> Other (describe) _____</p>
<p>17. Statistical methods</p> <p>Does this information collection employ statistical methods</p> <p style="text-align: center;"><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>18. Agency Contact (person who can best answer questions regarding the content of this submission)</p> <p>Name: _____</p> <p>Phone: _____</p>

## 19. Certification for Paperwork Reduction Act Submissions

On behalf of this Federal Agency, I certify that the collection of information encompassed by this request complies with 5 CFR 1320.9

**NOTE:** The text of 5 CFR 1320.9, and the related provisions of 5 CFR 1320.8(b)(3), appear at the end of the instructions. *The certification is to be made with reference to those regulatory provisions as set forth in the instructions.*

The following is a summary of the topics, regarding the proposed collection of information, that the certification covers:

- (a) It is necessary for the proper performance of agency functions;
- (b) It avoids unnecessary duplication;
- (c) It reduces burden on small entities;
- (d) It used plain, coherent, and unambiguous terminology that is understandable to respondents;
- (e) Its implementation will be consistent and compatible with current reporting and recordkeeping practices;
- (f) It indicates the retention period for recordkeeping requirements;
- (g) It informs respondents of the information called for under 5 CFR 1320.8(b)(3):
  - (i) Why the information is being collected;
  - (ii) Use of information;
  - (iii) Burden estimate;
  - (iv) Nature of response (voluntary, required for a benefit, mandatory);
  - (v) Nature and extent of confidentiality; and
  - (vi) Need to display currently valid OMB control number;
- (h) It was developed by an office that has planned and allocated resources for the efficient and effective management and use of the information to be collected (see note in Item 19 of instructions);
- (i) It uses effective and efficient statistical survey methodology; and
- (j) It makes appropriate use of information technology.

If you are unable to certify compliance with any of the provisions, identify the item below and explain the reason in Item 18 of the Supporting Statement.

Signature of Senior Official or designee

Date

Agency Certification (signature of Assistant Administrator, Deputy Assistant Administrator, Line Office Chief Information Officer, head of MB staff for L.O.s, or of the Director of a Program or StaffOffice)

Signature

Date

Signature of NOAA Clearance Officer

Signature

Date

## SUPPORTING STATEMENT

### PILOT TEST OF THE ELWHA RIVER DAM REMOVAL AND FLOODPLAIN RESTORATION ECOSYSTEM SERVICE VALUATION PROJECT SURVEY

OMB CONTROL NO. 0648-xxxx

#### A. JUSTIFICATION

##### 1. Explain the circumstances that make the collection of information necessary.

###### Background

The National Oceanic and Atmospheric Administration (NOAA) is requesting approval for a new information collection effort for the purpose of conducting a pilot test of a draft survey instrument developed for the Elwha River Dam Removal and Floodplain Restoration Ecosystem Service Valuation Project (the “Project”). Information gained from this pilot test will be used to modify the draft survey instrument prior to administration of a final survey for the Project.

NOAA has received funding from the [Estuary Restoration Act of 2000](#) (Title I, P.L. 106-457) to expand research on ecosystem services valuation. Part of NOAA’s role under this Act is to develop metrics to determine the economic value and impact of restoration. The Project will be NOAA’s first effort to develop these metrics. This project is designed as a research project to evaluate valuation of ecosystem services provided by restoration actions.

The [Elwha River Ecosystem and Fisheries Restoration Act of 1992](#) (i.e., the “Elwha Act,” P.L. 102-495) authorized the Secretary of the Interior to acquire and remove two hydroelectric dams on the Elwha River (the Elwha and Glines Canyon dams) and implement restoration actions to restore the Elwha River and its native anadromous fisheries. The proposed Project will not be used to make agency decisions or to inform policies affecting the dam removal, restoration activities, or groups impacted by the dam removal and restoration on the Elwha River, as these activities are already underway. Rather, it is designed to capitalize on the planned dam removal and restoration efforts to allow NOAA to better understand the public’s comprehension about ecosystem service measures and the value the public places on these types of ecosystem services associated with the river habitat restoration. Additionally, we expect this research to provide helpful insights regarding public values for ecosystem services that may help inform other restoration projects.

While previous work has been done to estimate the value of removing dams on the Elwha River, we are not aware of any research on the value of restoring ecosystem services after the dams have been removed. We have designed this study to improve NOAA’s understanding of how the public values ecosystem services and their restoration more generally.

The Elwha River dam removal and restoration actions present a unique opportunity for NOAA to undertake research on ecosystem service measures and evaluate economic value associated with restoration activities. Because of the extensive planning and review process for the dam removal,

significant baseline ecological data are available to allow a comparison of ecological values before and after the floodplain restoration and dam removal, and to investigate potential tradeoffs between ecological and human use values. The ability to link results of the Project to precise measures of ecosystem changes could be applied to future restoration sites, enabling NOAA to evaluate a broader range of ecosystem services provided by future restoration actions. The removal of these dams, scheduled to be completed by the end of 2013, will be the largest dam removal project in U.S. history. This dam removal, along with restoration actions planned for the floodplain and drained reservoir basins, will impact people in the surrounding region in numerous ways. Impacted groups include recreators who engage in river activities such as fishing and rafting, reservoir users, and members of the Lower Elwha Klallam Tribe (LEKT) for whom the river has cultural, environmental, and economic significance. These impacted groups are likely to have associated some value with the natural resources of the Elwha River.

NOAA has contracted with Stratus Consulting in Boulder, Colorado, to undertake the Project and develop the total value survey by conducting qualitative research and, now, a pilot test for the developed survey. NOAA team members and the Stratus Team (collectively “the Team”) anticipate conducting two waves of pretesting in Washington and Oregon. The proposed Project is designed to administer a stated-choice survey to measure the total value (i.e., combined use and non-use values) of alternative levels of salmon, and forest and wildlife, restoration actions to provide ecosystem services, and to address an important gap in research on ecosystem service improvements associated with habitat restoration and protection.

## **Request**

This information collection request (ICR) is to conduct a pilot study of the draft survey instrument developed through focus groups and interviews conducted under OMB Control No. 0648-0638. The proposed pilot study would be administered in two waves. In the first wave, we propose to use Knowledge Networks (KN), a GfK company, to administer the survey online to its existing KnowledgePanel® in Washington and Oregon. The goal is to achieve 1,050 completed surveys. We propose to use the KnowledgePanel® in the first wave to evaluate alternative presentation formats of some of the survey information to respondents. The information gained from the testing in KnowledgePanel® will be used to select and administer one of the approaches evaluated in Wave 1 during Wave 2.

Wave 1 of the pilot study will inform Wave 2 in the following ways:

1. Bid Design – We will review the data from Wave 1 to assess whether the bid amounts are sufficient to separate differences in WTP between Salmon and Forest restoration, and encompass a reasonable range of respondents’ WTP.
2. Choice question format – We will determine whether the format of the choice questions is clear and whether one format dominates the other. The most efficient question format is anticipated to be used in Wave 2.
3. Scenario acceptance – We will determine whether respondents had difficulty in understanding the description of the scenario or the questions being asked.

We will assess this information by analyzing respondents' votes and their responses to follow-up questions, and reviewing any open-ended comments respondents include on their surveys. This assessment of Wave 1 would then inform any changes made to Wave 2. During survey development, the Team evaluated alternative formats of the choice tasks. (See Appendices B and C) The alternatives varied on the amount of information presented in the actual choice task tables, and in whether or not respondents are required to select the one specific alternative that predetermines the levels of salmon and reservoir restoration, or allows respondents to independently choose the levels of salmon and reservoir restoration. Reservoir restoration is the mechanism to provide increased forest and wildlife services. During survey development efforts, the Team identified respondent's preference of being able to choose the level of salmon restoration independent of the level of reservoir restoration. This approach would be novel when compared to previous stated choice surveys. Therefore, we propose testing the alternative approaches using the KnowledgePanel® to evaluate the preferred approach prior to Wave 2 of the pretest effort. Because NOAA ultimately plans to administer the final survey instrument using a mail mode, the second wave would be administered by mail with a goal of achieving 250 completed surveys. During this wave, we would administer the preferred choice format, and focus on collecting information to refine bid values for the main survey.

**2. Explain how, by whom, how frequently, and for what purpose the information will be used. If the information collected will be disseminated to the public or used to support information that will be disseminated to the public, then explain how the collection complies with applicable NOAA Information Quality Guidelines.**

The information collected will be used to improve NOAA's understanding of the importance of ecosystem service restoration to the public and will not be used to inform policies regarding dam removal or river restoration on the Elwha River.

This information collection will form the basis for pretesting an effective total valuation survey. The information collected during this pretest will be used by the Team to finalize a proposed approach to conduct the main survey. An additional ICR will be developed to undertake the main survey.

At the regional level, we anticipate a diversity of views about the dam removal and habitat restoration. The Team has already investigated the heterogeneity of views and values through a qualitative investigation using a series of focus groups and one-on-one interviews (see Attachment A for a summary of qualitative research findings). Based on this research and input from external peer review, internal peer review, and scientific fact checking, the Team has designed the draft survey instrument included in this ICR (see Attachment B) and is prepared to pretest it with a small sample of people from Washington and Oregon.

The purpose of the first wave of the pretest is to test two ways of presenting the choice question to respondents (see Attachments B and C). Once KN sends the pretest data for the first wave of data collection, the Team will analyze it using simple summary statistics, develop a presentation on the results, and make any changes, if necessary, to the draft survey instrument or experimental design before implementing the second wave of the pretest.

The purpose of the second wave of the pretest is to make sure that there are no issues with administering the survey via mail, which is the proposed mode of data collection for the final survey.

### **Overview of the draft survey instrument**

NOAA had undertaken extensive qualitative research, scientific fact checking and peer review in developing the draft survey and research plan. Through this process, NOAA anticipated that the information collected will comply with NOAA Data Quality Guidelines. Below we describe the efforts undertaken to develop, check and preliminarily test the data collection survey.

The survey instrument included in this ICR has been designed for a mail-mode administration, which is the proposed mode of collection for the second wave of the pretest and the final survey. This version differs from the executable version for the first wave of the pretest in format only. An online address to review the Web Interface version will be provided to the Office of Management and Budget (OMB) as soon as all the screens have been programmed correctly.

Throughout the development and presentation of materials in the survey, the Team has strived to present information in a balanced, neutral manner. Discussions of the details of this balance are provided in the individual sections below.

As the information is presented, it is divided into sections by questions designed to encourage review and consideration of survey information and to provide us with feedback on respondents' preferences based on the information they have seen up to that point.

Summaries of the major sections of the main survey follow.

#### ***Part I: Introduction to the study***

The first section provides the background and purpose of the survey, which is to ask people what they think should be done, if anything, to improve the environment around the Elwha River in western Washington. The respondents then learn more about the Elwha River and the surrounding area. The Team included a map as an insert in this survey to provide more context and to familiarize respondents with the area.

The text then emphasizes that the Elwha Dam has been removed and the Glines Canyon Dam will be removed by 2013. The Team tested this section frequently to make sure respondents understood that dam removal was a given.

In this section, we ask respondents about whether they have heard of the Elwha River or about the removal of the dams, and whether they have visited the Elwha River or Olympic National Park. These questions will help the Team understand respondents' knowledge of and familiarity with the Elwha River.

#### ***Part II: The Elwha River ecosystem***

This section introduces the concept of ecosystem, which the Team found during testing was a concept most people understood. It discusses two components of the ecosystem: (1) salmon and (2) forests and wildlife.

Respondents learn about a less familiar concept: keystone species. With the help of the diagram, they seemed to understand what a keystone species is, and how salmon was a keystone species for the Elwha River ecosystem before the dams were built.

This section also introduces the role that forests played in the Elwha River ecosystem before the dams were built. The graphic on this page shows respondents the variety of plants and animals found in the forests along the Elwha River and how people use the forests. The section ends with a summary of how the dams have affected the Elwha River ecosystem; for example, they prevented salmon from moving upstream to spawn, and the lakes behind them covered the forests.

### ***Part III: Restoration alternatives***

In this section, respondents learn three things about salmon restoration and forest and wildlife recovery: (1) the effects of the dams on each of them, (2) how much could be restored once the dams are gone, and (3) steps that could be taken to speed up the restoration process. For salmon restoration, the baseline condition is presented as a percentage of historical levels of fish returning to the Elwha River each year. Our main source for information about historical, current, and future salmon numbers is NOAA's Fish Restoration Plan (NOAA, 2008). We included an estimate of historical numbers of returning fish for two reasons. First, this number provides general context for the valuation exercise so that respondents have a sense of the scale of changes they might expect to see. Second, it helps make the basic point that full restoration to historical levels is impossible. However, few records exist for use in estimating numbers of spawning salmon before 1913, when the Elwha Dam was completed. As a result, scientists have struggled to estimate historic numbers. NOAA (2008, pp. 83–85) summarizes the available studies. We are also working with Dr. George Pess of NOAA's Northwest Fisheries Science Center, one of the lead biologists working on Elwha River anadromous fish restoration, to understand a reasonable range of historical levels to use based on available studies.

The improvement scenarios used in the choice questions drew heavily on the expertise of Dr. Pess. Our "Salmon Alternative 2: Limited Action" (150,000 fish) is in keeping with NOAA's Fish Restoration Plan (NOAA, 2008, pp. 86–94). "Salmon Alternative 3: Extensive Action" (180,000 fish) reflects the estimates of some of the more optimistic biologists. Both numbers were vetted by Dr. Pess, who believes that the less optimistic alternative is more likely. These values were based on estimates of spawner escapement rather than those of total production, which are much larger. We used spawner escapement figures because we found that people in our focus groups and cognitive interviews could better understand restoration when described in terms of the average number of adult fish returning each year to spawn.

Respondents understood that there are limits to how many fish could return to the Elwha River because of habitat changes below the dam and current fishing pressures. During the qualitative research phase, the Team learned that people really care about restoring the environment to a

condition that more closely resembles what it looked like before the dams were built. For forests and wildlife, the baseline condition is presented as a percentage of full recovery.

For both salmon restoration and forest and wildlife recovery, there are three alternatives respondents can consider: doing nothing more after dam removal (“No further actions”), doing some limited actions, or doing some extensive actions. Respondents see a graph and a table showing how the salmon and forests and wildlife would recover under each of the three alternatives. For salmon restoration, respondents see percentages of salmon returning each year, as well as the actual numbers of salmon returning each year. During the qualitative research phase, the Team learned that some people like graphs, some people like tables, and some people like both. The Team also learned that people like to see both the percentages and the cardinal numbers, which is why both are included in the salmon restoration table. For the forest and wildlife restoration section, respondents only see percentages of recovery in the graph and table, which the Team found was acceptable to respondents.

#### ***Part IV: Benefits and negative impacts***

This section reminds respondents about the tradeoffs between taking additional steps to restore the Elwha River ecosystem and letting it recover naturally after dam removal. Although people may benefit from personally using the river for recreation or just knowing the river is restored, it could have a negative impact on trout populations and would come at a cost to the respondent.

#### ***Part V: Payment mechanism***

In this section, respondents learn how the additional restoration actions would be paid for, i.e., by adding a surcharge to the electricity bills sent to the general public in Washington and Oregon in 2013.

#### ***Part VI: Choice question***

This final section asks respondents to choose the alternative or option they think is best. For the first wave of the pretest, we are running an experiment using two versions of the choice question.

In the choice question at the end of Attachment B, respondents can choose the level of restoration they want for salmon independently from what level of restoration they want for forests and wildlife. The Team found during the qualitative research phase that respondents wanted to be able to choose these levels separately, rather than be bound by a preselected bundle of alternatives.

The choice question in Attachment C presents respondents with a more traditional choice format. In this format, respondents can always choose doing nothing for both salmon and forests and wildlife. The other two options, however, could be any number of combinations of doing nothing, doing limited actions, or doing extensive actions (see experimental design below).

#### ***Part VII: Debriefing questions***

At the end of the survey, we ask several debriefing questions to test whether respondents thought their opinion was consequential (i.e., to see whether they thought they would actually have to

pay the surcharge in 2013 and whether they thought public officials would take their opinion into consideration).

### **Experimental design**

This section describes the experimental design for the Elwha River Dam Removal and Floodplain Restoration Ecosystem Service Valuation Pilot Survey (“survey”). The developed design will be pretested using a subset of the overall design. Adjustments to the final design for the main survey will be based upon the results of the pretest. This section describes the method and layout of the experimental design that will be used for the pretest survey. We expect to revise the attribute levels presented here based on results from the pretest.

The survey includes six attributes: (1) number of years until the maximum salmon restoration level is achieved, (2) the maximum percentage of salmon restoration achievable, (3) the number of years until the maximum forest restoration level is achieved, (4) the maximum percentage of forest and wildlife restoration achievable, (5) the costs of the salmon restoration alternatives, and (6) the costs of the forest restoration alternatives.

For each attribute, three alternatives are offered: (1) do nothing more, (2) do limited actions, and (3) do extensive actions. Each option entails a different time path following a logistic curve for recovery of the attribute. The time path is defined by the maximum level the attribute can reach and how quickly it reaches that level under the alternative. For salmon and forest and wildlife time paths, extensive actions provide the fastest recovery; limited actions provide a slower recovery than extensive but a faster one than doing nothing more; and doing nothing more is the slowest way of the three. For forests and wildlife, each alternative leads to the same maximum recovery level (100%). For salmon, extensive actions lead to the greatest percentage of historical levels; limited actions lead to an intermediate percentage of historical levels; and doing nothing more leads to the lowest percentage of historical levels.

The time paths for each attribute are based on the Elwha River fisheries restoration plan, the revegetation plan, and conversations with restoration botanists, wildlife biologists, and fisheries biologists.

There are nine possible combinations of the three alternatives for the non-cost attributes (see Table 1).

**Table 1. Possible combinations of alternatives**

<b>Combination</b>	<b>Salmon restoration</b>	<b>Forest and wildlife restoration</b>
1	Do nothing more	Do nothing more
2	Do nothing more	Limited
3	Do nothing more	Extensive
4	Limited	Do nothing more
5	Limited	Limited
6	Limited	Extensive
7	Extensive	Do nothing more

8	Extensive	Limited
9	Extensive	Extensive

To allow respondents to find their most preferred combination without presenting a choice question with nine alternatives, under one presentation alternative, we split the choice question into two parts. Respondents first pick their most preferred of the three alternatives for salmon, then they pick their most preferred of the three alternatives for forests and wildlife. These alternatives are assigned to survey versions in way that precludes a respondent of receiving the same scenario back to back. To underscore to respondents that their payment is the sum of the two alternatives they choose, we ask them to add the costs and write down the total cost of their selections.

To our knowledge, this approach is novel in the stated preference literature. While participants in focus groups understood the task and preferred the flexibility it offered, we would like to use a larger sample to test for statistical differences between responses to the “independent” approach and a “traditional” choice experiment approach. Both approaches will present three alternatives, with “Do nothing more” as an option for each choice question. We will divide the sample into two parts, with one half of the respondents receiving the independent choice question and the other half receiving three traditional choice questions in each survey. The traditional choice questions will present a subset of three of the nine combinations of alternatives in each version, with “Do nothing” for both attributes as one of the three alternatives.

Table 2 summarizes the attributes and levels we will use for the pretest survey; we will use one level for the non-cost attributes. Cost will include two levels for each alternative. Cost is always greatest for the extensive alternative, less for the limited alternative, and zero for the “Do nothing more” alternative.

As is common in a study using iterative bid design development, we are using this pilot study to develop bid amounts for the full field study. The costs (bid amounts) were determined using feedback from focus group participants and restrictions imposed by the policies we evaluated. During focus groups, we tested different maximum costs to identify an amount that most respondents who otherwise expressed support for the program were not willing to pay. After establishing the maximum cost, we selected bid amounts that satisfied the following criteria: 1) in any given pair, salmon restoration always costs more than forest restoration, 2) the extensive program always costs more than the limited program, and 3) the costs were spaced roughly evenly between zero and the maximum. Based on our experience with bid design, we expect that the range and spacing of bid amounts will provide sufficient variability to estimate willingness to pay. Additionally, the experimental design has been developed to ensure that the bid amounts are set against a range of levels for the other attributes to provide the variability that will allow us to estimate willingness to pay as precisely as possible. This set of levels will allow us to estimate coefficients for cost and each of the six time paths.

**Table 2. Program attributes and associated levels**

Attribute	Maximum percentage reached	Years until maximum percentage reached	Cost (\$/year)
<b>% of salmon restored</b>			
Do nothing more	40%	100	0
Limited	50%	30	[40, 60]
Extensive	[50%, 60%]	20	[75, 150]
<b>% of mature forest restored</b>			
Do nothing more	100%	200	0
Limited	100%	125	[20, 40]
Extensive	100%	90	[45, 75]

There are eight possible choice sets for salmon that contain all of the different combinations of levels being considered. There are also four possible choice sets for forests and wildlife that contain all combinations of levels. They can be combined into twelve orthogonal, main-effects choice sets, as listed in Table 3. This is the experimental design for the “independent” choice question format. Survey versions are designed provide sufficient variation in main-effects alternatives while eliminating the opportunity for respondents to receive the same scenario twice.

**Table 3. Survey versions for independent choice format**

Version	Alternative	Salmon			Forests and wildlife		
		Maximum %	Year max reached	Cost (\$/year)	Maximum %	Year max reached	Cost (\$/year)
1	Do nothing more	40%	100	0	100%	200	0
	Limited	50%	30	40	100%	125	20
	Extensive	60%	20	75	100%	90	45
2	Do nothing more	40%	100	0	100%	200	0
	Limited	50%	30	40	100%	125	40
	Extensive	60%	20	75	100%	90	75
3	Do nothing more	40%	100	0	100%	200	0
	Limited	50%	30	40	100%	125	20
	Extensive	60%	20	150	100%	90	75
4	Do nothing more	40%	100	0	100%	200	0
	Limited	50%	30	40	100%	125	40
	Extensive	60%	20	150	100%	90	45
5	Do nothing more	40%	100	0	100%	200	0
	Limited	50%	30	60	100%	125	20
	Extensive	60%	20	75	100%	90	75
6	Do nothing more	40%	100	0	100%	200	0
	Limited	50%	30	60	100%	125	40
	Extensive	60%	20	75	100%	90	45

**Table 3. Survey versions for independent choice format**

Version	Alternative	Salmon			Forests and wildlife		
		Maximum %	Year max reached	Cost (\$/year)	Maximum %	Year max reached	Cost (\$/year)
7	Do nothing more	40%	100	0	100%	200	0
	Limited	50%	30	60	100%	125	20
	Extensive	60%	20	150	100%	90	45
8	Do nothing more	40%	100	0	100%	200	0
	Limited	50%	30	60	100%	125	40
	Extensive	60%	20	150	100%	90	75
9	Do nothing more	40%	100	0	100%	200	0
	Limited	50%	30	40	100%	125	20
	Extensive	50%	20	75	100%	90	45
10	Do nothing more	40%	100	0	100%	200	0
	Limited	50%	30	40	100%	125	20
	Extensive	50%	20	150	100%	90	75
11	Do nothing more	40%	100	0	100%	200	0
	Limited	50%	30	60	100%	125	40
	Extensive	50%	20	75	100%	90	45
12	Do nothing more	40%	100	0	100%	200	0
	Limited	50%	30	60	100%	125	40
	Extensive	50%	20	150	100%	90	75

The versions that use the bundled choice question format will select from a subset of the 72 combinations of salmon and forest and wildlife programs to produce a main-effects orthogonal design. There will be 12 versions using the traditional choice question format, listed in Table 4. As in the independent choice format, respondents are precluded from receiving certain scenarios back to back in the traditional choice format.

**Table 4. Survey versions for traditional choice questions with three questions per version**

Version	Choice set	% maximum, salmon	Year maximum, salmon	% maximum, forests	Year maximum, forests	Cost
1	1	40%	100	100%	200	0
	1	50%	30	100%	90	85
	1	60%	20	100%	125	115
2	2	40%	100	100%	200	0
	2	40%	100	100%	125	20
	2	50%	30	100%	125	60
3	3	40%	100	100%	200	0
	3	60%	20	100%	200	100

**Table 4. Survey versions for traditional choice questions with three questions per version**

Version	Choice set	% maximum, salmon	Year maximum, salmon	% maximum, forests	Year maximum, forests	Cost
2	3	60%	20	100%	90	175
	4	40%	100	100%	200	0
	4	60%	20	100%	125	120
	4	50%	30	100%	90	85
	5	40%	100	100%	200	0
	5	40%	100	100%	90	75
	5	60%	20	100%	90	175
	6	40%	100	100%	200	0
	6	50%	30	100%	200	40
3	6	50%	30	100%	125	80
	7	40%	100	100%	200	0
	7	50%	30	100%	90	135
	7	60%	20	100%	125	95
	8	40%	100	100%	200	0
	8	40%	100	100%	90	75
	8	60%	20	100%	90	150
	9	40%	100	100%	200	0
	9	50%	30	100%	200	60
4	9	50%	30	100%	125	80
	10	40%	100	100%	200	0
	10	40%	100	100%	125	40
	10	50%	30	100%	125	100
	11	40%	100	100%	200	0
	11	60%	20	100%	200	75
	11	60%	20	100%	90	120
	12	40%	100	100%	200	0
	12	60%	20	100%	125	140
	12	50%	30	100%	90	105

We will compare the two choice question formats using four criteria: statistical efficiency, consequentiality, burden hours, and item non-response. First, we will compare the standard errors on the cost coefficient. The approach with the smallest standard errors is the most statistically efficient, allowing us to estimate the most precise willingness-to-pay (WTP) values. Second, we will compare whether respondents perceive that the government would be more likely to act based on results from the survey and whether they believed they would have to pay the amount they chose. Greater consequentiality would mean a more realistic scenario and more accurate WTP estimates. Third, we will compare how long it takes respondents to complete the

choice question section to see whether the independent approach could significantly reduce the public's burden hours associated with stated preference surveys. Finally, we will compare item non-response rates between approaches to see if the independent approach could significantly reduce the occurrence of skipped choice questions.

### **Use of stated choice questions**

Stated choice methods have been identified as a useful tool to better understand individuals' preferences and values for environmental amenities that are not traded in markets. While the Elwha River is currently used by some in the region, its potential restoration would contribute to the broader public good. No markets are available to study the value of restoring this ecosystem. Stated choice methods also allow for the evaluation of a full range of restoration alternatives, including doing nothing more once the dams are removed.

Stated choice methods are well established in the literature on environmental economics (Kanninen, 2007). This approach evolved from conjoint analysis, a method used extensively in marketing and transportation research (Louviere et al., 2000).<sup>1</sup> Conjoint analysis requires respondents to rank or rate multiple alternatives in which each one is characterized by multiple characteristics (e.g., Johnson et al., 1995; Roe et al., 1996; Holmes and Adamowicz, 2003). Choice questions require respondents to choose their best alternative (a partial ranking) from multiple alternative goods (i.e., a choice set), where the alternatives within a choice set are differentiated by their characteristics.

There are many desirable aspects of stated choice questions, not the least of which is the nature of the choice being made. Choosing the most preferred alternative from a set of alternatives is a common method. Morikawa et al. (1990) note that responses to choice questions often contain useful information on tradeoffs among characteristics. Quoting from Mathews et al. (1997), stated choice "models provide valuable information for restoration decisions by identifying the characteristics that matter to anglers and the relative importance of different characteristics that might be included in a fishing restoration program." Johnson et al. (1995) note that "The process of evaluating a series of pair wise comparisons of attribute profiles encourages respondents to explore their preferences for various attribute combinations." Choice questions encourage respondents to concentrate on the tradeoffs between characteristics, rather than to take a position for or against an initiative or policy. Adamowicz et al. (1998a) note that the repeated nature of choice questions makes it difficult to behave strategically.

Choice questions allow for the construction of goods characterized by levels that currently do not exist. This feature is particularly useful in marketing studies whose purpose is to estimate preferences for proposed goods, where various characteristics can be manipulated in arriving at final product designs.<sup>2</sup> For example, Beggs et al. (1981) assess the potential demand for electric

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1. Cattin and Wittink (1982) and Wittink and Cattin (1989) survey the commercial use of conjoint analysis, which is widespread. For survey articles and reviews of conjoint analysis, see Louviere (1988, 1992), Green and Srinivasan (1990), and Batsell and Louviere (1991). Transportation planners use choice questions to determine how commuters would respond to a new mode of transportation or a change in an existing mode. Hensher (1994) gives an overview of choice questions applied in transportation.

2. Louviere (1994) provides an overview of choice questions applied in marketing.

cars. Similarly, researchers estimating the value of environmental goods are often valuing a good or condition that does not currently exist, e.g., a restored ecosystem.

Choice questions, rankings, and ratings are increasingly used to estimate the value of environmental goods. For example, Magat et al. (1988) and Viscusi et al. (1991) estimate the value of reducing health risks; Adamowicz et al. (1994, 1998b, 2004), Breffle et al. (2005), and Morey et al. (1999a) estimate recreational site choice models for moose hunting, fishing, and mountain biking; Breffle and Rowe (2002) estimate the value of broad ecosystem attributes (e.g., water quality, wetlands habitat); Adamowicz et al. (1998a) estimate the value of enhancing the population of a threatened species; Layton and Brown (1998) estimate the value of mitigating forest loss resulting from global climate change; and Morey et al. (1999b) estimate WTP for monument preservation in Washington, DC. In each of these studies, a price (e.g., a tax or a measure of travel costs) is included as one of the characteristics of each alternative so that preferences for the other characteristics can be measured in terms of dollars. Other examples of choice questions to value environmental commodities include Swait et al. (1998), who compare prevention versus compensation programs for oil spills, and Mathews et al. (1997) and Ruby et al. (1998), who ask anglers to choose between two saltwater fishing sites as a function of their characteristics.

Alternatively, a number of environmental studies have used ratings, in which survey respondents rate the degree to which they prefer one alternative to another. For example, Opaluch et al. (1993) and Kline and Wichelns (1996) develop a utility index for the characteristics associated with potential noxious facility sites and farmland preservation, respectively. Johnson and Desvousges (1997) estimate WTP for various electricity generation scenarios using a rating scale in which respondents indicate their strength of preference for one of two alternatives within each choice set. Other environmental examples include Rae (1983), Lareau and Rae (1998), Krupnick and Cropper (1992), Gan and Luzar (1993), and Mackenzie (1993). Adamowicz et al. (1998b) provide an overview of choice and ranking experiments applied to environmental valuation, and argue that choice questions better predict actual choices than do rating questions because choice questions mimic the real choices individuals are continuously required to make, whereas individuals rank and rate much less often.<sup>3</sup>

Choice and rating questions characterize the alternatives in terms of a small number of characteristics. For example, Opaluch et al. (1993) characterize noxious facilities in terms of seven characteristics; Adamowicz et al. (1998b) use six characteristics to describe recreational hunting sites; Johnson and Desvousges (1997) use nine characteristics to describe electricity generation scenarios; Mathews et al. (1997) use seven characteristics to describe fishing sites; Morey et al. (1999a) use six characteristics to describe mountain biking sites; and Morey et al. (1999b) use two characteristics to characterize monument preservation programs.

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3. See, for example, Louviere and Woodward (1983), Louviere (1988), and Elrod et al. (1992).

## **How information disseminated to the public complies with NOAA Information Quality Guidelines**

### ***Utility***

The overall study goals were refined through the qualitative research phase of this project and through meetings with key stakeholder groups, including federal and state resource managers and the Team. These initial meetings allowed us to identify key information needs. At critical points throughout the study, we updated the key stakeholders on the status of the study. This ensured that all information developed from this project will be transparent to all members of the public. Any information that is ultimately disseminated to the public will provide detailed analysis on the value associated with improving ecosystem services, which is a key issue associated with many environmental policy decisions. During conversations with stakeholders, they mentioned the desire to get better information on the benefits provided by ecosystem service improvements through habitat restoration. The information developed during the Pilot Project will be able to provide some of this information.

### ***Objectivity***

The survey instrument will contain scientific facts/information and potential scenarios that will be presented to respondents. The information will allow them to make tradeoffs and state preferences for different ecosystem services and ecological outputs (e.g., changes in fish biomass). These ecological outputs as presented were vetted for their validity by subject-matter experts such as fish biologists. The goal is to present balanced and factual information to the respondents. We also conducted internal peer reviews on all work products. External reviewers also had an opportunity to comment on factual details presented in the survey and work products during the qualitative research process. Peer review will ensure that the information collected is accurate, reliable, and unbiased and that the information reported to the public is accurate, clear, complete, and unbiased.

### ***Integrity***

During both waves of the pretest, participants will be reminded that their participation is voluntary, that their responses will be protected, and that no material identifying them will be provided to anyone.

NOAA will retain control over the information and safeguard it from improper access, modification, and destruction, consistent with NOAA standards for confidentiality, privacy, and electronic information. See response to Question 10 of this Supporting Statement for more information on confidentiality and privacy. The information collection is designed to yield data that meet all applicable information quality guidelines. Prior to dissemination, the information will be subjected to quality control measures and a pre-dissemination review pursuant to [Section 515 of Public Law 106-554](#).

**3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological techniques or other forms of information technology (IT).**

For the first wave of the pretest, we propose the use of automated, electronic data collection by using KN's KnowledgePanel® administered over the Internet. The KnowledgePanel® is an online non-volunteer access panel.<sup>4</sup> Recruited households without Internet access are provided with a netbook computer and free Internet service to allow them to participate. All Web-enabled panel surveys are self-administered, which allows respondents to complete the surveys at their convenience and own pace, in the comfort and privacy of their homes. The electronic survey system supports the inclusion of video, audio, and 3-D graphics in the questionnaire if so desired. The electronic data collection can track how long respondents spend on each screen.

The data capture survey system, owned by KN, was designed to meet the specific requirements of Web-based surveys. The system supports all types of questions commonly used in complex, computer-based interviewing systems. It uses advanced scripting techniques for customization of individual questions to meet the needs of researchers proposing innovative designs. The data capture platform supports the complexity and type of questions proposed in our study, including multimedia graphics and voice-over presentation. The system also supports the importation of auxiliary data, such as demographic information collected as part of the screening. These data can be used to inform question logic, question wording, etc.

The second wave of the survey will be administered by mail, the planned method for the final survey.

**4. Describe efforts to identify duplication.**

Based on discussions with a variety of stakeholders (academic, governmental, and Tribal representatives) involved in the dam removal and restoration effort, we have found no existing data collection activities that have specifically addressed the information needs of this study. While research has been done to value dam removal on the Elwha River, it did not address the value of restoration activities once the dams have been removed.

**5. If the collection of information involves small businesses or other small entities, describe the methods used to minimize burden.**

This pretest will target individuals rather than small businesses or small entities.

**6. Describe the consequences to the Federal program or policy activities if the collection is not conducted or is conducted less frequently.**

Without this collection, NOAA will be unable to develop the tools necessary to conduct this research.

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4. See [http://www.knowledgenetworks.com/knpanel/docs/KnowledgePanel\(R\)-Design-Summary-Description.pdf](http://www.knowledgenetworks.com/knpanel/docs/KnowledgePanel(R)-Design-Summary-Description.pdf) for more specific information on the KnowledgePanel®.

**7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.**

For the pretest, we anticipate that the response rate will be lower than OMB guidelines suggest. Because the goals of the pretest are methods development and bid design with limited sample size, we do not anticipate any non-response follow-up efforts. For the first wave of the pretest, we anticipate getting a 20% response rate. The low overall expected response rate is due to the multi-stage construction of the KN Panel. For the second wave of the pretest, we anticipate getting up to a 5% higher response rate, due to incentives (see Question 9).

**8. Provide information on the PRA Federal Register Notice that solicited public comments on the information collection prior to this submission. Summarize the public comments received in response to that notice and describe the actions taken by the agency in response to those comments. Describe the efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.**

A Federal Register Notice requesting comments regarding this request was published on September 12, 2012 (77 FR 56189). One comment was received by the agency. The commenter, who resides in Illinois, asked about the decision to limit the survey to Washington and Oregon residents, given the presence of a national park in the proposed study area. The agency responded to the comment by indicating that similar studies typically limit geographic scope in some manner, the current limit on geographic scope is based on the expected familiarity with the study area by residents of Oregon and Washington, and, depending on the results of this work, future research may seek to evaluate a national sample. In addition, the agency received one request for additional information; the survey was provided to the person making that request.

**Consultants outside the agency**

NOAA and Stratus Consulting have compiled a team of experts to carry out this study. Key team members include Mr. David Chapman, Dr. Megan Lawson, Ms. Colleen Donovan and Ms. Heather Hosterman of Stratus Consulting, Dr. Richard Bishop (Professor Emeritus from the University of Wisconsin), Dr. James Boyd (economist with Resources for the Future), Dr. John Duffield (Professor with the University of Montana), Dr. John Loomis (Professor with Colorado State University), Dr. Roger Tourangeau (statistician and sampling expert at Westat), and Dr. Barbara Kanninen (econometrics expert with BK Econometrics, LLP). We have also contracted with Dr. Richard Carson, Professor at the University of California, San Diego, to participate as a peer reviewer. These experts have extensive experience in all disciplines necessary to complete an effective study, including the fields of non-market valuation, econometrics, and survey research and design. They have frequently applied their expertise in the context of environmental issues, including the protection of T&E species, the implementation of ecological restoration projects, water quality issues, water allocation issues, impacts to recreation, and impacts to Tribal resources. Members of this Team have worked extensively for federal, state, and local governments; American Indian Tribes in the Pacific Northwest and throughout the United States; non-profit groups; and research foundations.

Our team has substantial experience using non-market valuation methods to address environmental issues including valuation of ecosystem services, addressing dam removal, dam modification projects, and management of river flows to protect T&E species. Experience specifically related to dam modification projects includes:

- ▶ Dr. Bishop conducted a study that valued improvements to environmental, cultural, and recreational resources of the Grand Canyon resulting from modifications to the operation of Glen Canyon Dam (Bishop et al., 1987; Welsh et al., 1997). The study involved two non-use surveys – one conducted throughout the United States and one conducted specifically with ratepayers whose electricity costs would increase due to changes in dam operations. The valuation scenarios included protection of Tribal, cultural, and spiritual resources. Secretary of the Interior Bruce Babbitt and Commissioner of Reclamation Eluid Martinez (Martinez and Babbitt, 1996) cited the non-use valuation study in justifying their decision to modify Glen Canyon Dam operations to achieve environmental and other goals.
- ▶ Dr. Loomis conducted a study that valued the increase in salmon populations from the removal of the Elwha River dams (Loomis, 1996b).. One conclusion of this study involved the extent to which the relevant market for the non-use values for dam removal and restored salmon runs included the national population (Loomis, 1996a).

**9. Explain any decisions to provide payments or gifts to respondents, other than remuneration of contractors or grantees.**

Two types of respondent incentives are provided: non-survey-specific and survey-specific incentives. Each is described below.

KN uses non-survey-specific incentives to maintain a high degree of panel loyalty and to prevent attrition from the panel. KN provides panel members with Internet connections and laptops (or Web-capable devices) if they do not already have them. For these households, the incentive is the hardware and Internet service. For households using their own personal computers and Internet service, KN enrolls the panelists in a points program that is analogous to a “frequent flyer” card in that respondents are credited with points in proportion to their regular participation in surveys. Panel members receive cash-equivalent checks approximately every four to six months in amounts reflecting their panel participation level, commonly \$2 to \$6 per month.

KN provides survey-specific incentives to panel members as a result of one or two conditions: (1) the survey is expected to require more than 20 minutes to complete; or (2) there is an unusual request being made of the respondent, such as providing a specimen, viewing a specific television program, or completing a daily diary. In these circumstances, panelists are being asked to participate in ways that are more burdensome than initially described during panel recruitment. For example, for the NOAA Coral Reef Protection Survey, an incentive was provided because the survey was expected to require 20 or more minutes to complete, and maximizing survey participation was a key study goal. Respondents who participated in that survey were credited with 10,000 points, which equates to the \$10 that was mailed to them at a later date.

For the first wave of the pretest, KN will provide their usual incentive to their panel members, because the survey is expected to require 20 or more minutes to complete. For the second wave of the pretest, we propose to provide respondents with a \$2 incentive when they receive the survey questionnaire in the mail. They will get this incentive regardless of whether they complete the survey.

Inclusion of an incentive acts as a sign of goodwill on the part of study sponsors and encourages reciprocity by the respondent. Singer (2002) provides a review of the use of incentives in surveys. Her findings show that giving respondents a small monetary incentive increases response rates. KN has analyzed the predictors of survey completion rates of studies conducted using its Web-enabled panel. A multivariate analysis based on approximately 500 KN surveys attempted to predict the effect of respondent incentives on survey completion rates while controlling for length of field period, sample composition, use of video in the instrument, and other factors. The effect of respondents' incentives is significant ( $p < 0.01$ ) for both \$5 and \$10 cash-equivalent incentives. Use of a \$5 incentive increased response by 4 percentage points, and a \$10 incentive increased response by 6 percentage points. Internal KN research has demonstrated that incentives increase the survey completion rate by approximately 5 percentage points. The increase is larger for young adults and Hispanics.

**10. Describe any assurance of confidentiality provided to respondents and the basis for assurance in statute, regulation, or agency policy.**

No assurance of confidentiality based on statute or regulation will be provided to the respondents. As part of the PRA statement provided to both KN and mail wave participants, respondents will be told that their identity will be protected throughout the data acquisition and analysis process. The anonymity of the survey respondents will be protected by using an independent contractor to collect the information; by enacting procedures to prevent unauthorized access to respondent data; and by preventing the public disclosure of the responses of individual participants. The Team will not be provided respondent identification information.

**KN privacy procedures**

All KN panel members receive a copy of KN's Privacy and Term of Use Policy. In this document is a section called "Panel Member Bill of Rights," which summarizes the information protections for panelists and explains that respondents can decide whether to participate in the panel or answer survey questions. The "Panel Member Bill of Rights" is also available electronically at all times to panelists through the panel member Web site.

Below is a summary of the measures that will be taken to meet the needs for privacy and confidentiality from the point of data access and IT.

First, all employees of KN are required to sign a confidentiality agreement requiring them to keep confidential all personally identifiable information regarding panel members. KN warrants that all employees are bound to protect the privacy and confidentiality of all personal information provided by respondents, and very few employees actually have access to any confidential data. The only employees who have access to this information, which contains personal identification

information about panel members, are those with a direct need to know. Therefore, the only persons with access are the following:

- ▶ Database and IT administrators with access to computer servers for the purpose of maintaining the computer systems at KN.
- ▶ Staff members in the Panel Relations department who have direct contact with panel members as part of the inbound and outbound call center operations. These staff members are responsible for troubleshooting any problems panelists might have with their equipment or software related to survey administration, incentive fulfillment, and panel management.
- ▶ Staff members of the Statistics department who have access to personally identifying information in order to draw samples for the various surveys we conduct at KN.

All personally identifying records are kept secured in a separate office in the IT section of the KN office in Palo Alto, CA, and all data transfers from personal computers (both used for survey administration) to the main servers pass through a firewall. KN never provides any respondent personal identifiers to any client or agency without the explicit and informed consent provided by the sampled KnowledgePanel® members. Unless explicitly permitted as documented in a consent form, no personally identifying information will be provided to any parties outside KN in combination with the survey response data.

All electronic survey data records are stored in a secured database that does not contain personally identifying information. The staff members in the Panel Relations and Statistics departments, who have access to the personally identifying information, do not have access to the survey response data. The staff members with access to the survey response data, with the exception of the aforementioned database and IT administrators who must have access to maintain the computer systems, do not have access to the personally identifying information. The secured database contains field-specific permissions that restrict access to the data by type of user, as described above, thereby preventing unauthorized access.

The survey response data are identified only by an incremented ID number. The personally identifying information is stored in a separate database that is accessible only to persons with a need to know, as described above.

The survey data extraction system exports only anonymized survey data identified only by the Panel Member ID number. The data analysts with access to the survey data extraction system cannot join survey data to personally identifying data, as they do not have access to the personally identifying information. The Panel Relations and Statistics staff does not have access to the survey data extraction system, and therefore cannot join survey data to personally identifying data.

KN retains the survey response data in its secure database after the completion of a project for the purpose of operational research, such as studies of response rates, and for the security of our customers who might at a later time request additional analyses, statistical adjustments, or statistical surveys that would require re-surveying research subjects as part of validation or longitudinal surveys.

**11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.**

No questions of a sensitive nature will be asked of respondents.

**12. Provide an estimate in hours of the burden of the collection of information.**

Estimated number of participants: 1,625.

Estimated time per response: 30 minutes.

Estimated total annual burden hours: 812.5.

**13. Provide an estimate of the total annual cost burden to the respondents or record-keepers resulting from the collection (excluding the value of the burden hours in Question 12 above).**

There will be no recordkeeping/reporting costs to the respondents.

**14. Provide estimates of annualized cost to the Federal government.**

The cost to the federal government for the two waves of the pretest will be approximately \$190,000, which includes approximately \$6,250 in paper and mailing costs for the second wave, \$20,000 in government staff labor time, and \$163,750 in contract costs.

**15. Explain the reasons for any program changes or adjustments.**

This is a new information collection request.

**16. For collections whose results will be published, outline the plans for tabulation and publication.**

It is not anticipated that the data collected through this ICR will be independently published or provided to the public. The information collected through this ICR will be summarized in the ICR request for the final survey administration and the final project report. Stratus Consulting will provide NOAA with a report of the pretest findings, and all data files will be documented and submitted to NOAA. The results of the pretest will be tabulated using simple summary statistical analyses of the data (e.g., frequencies, means, medians, standard deviations, maximums, and minimums). The data will be used to estimate a model for each of the three levels of salmon and forest and wildlife restoration. This analysis will be used to evaluate respondents understanding of the attributes presented, scenario description, and choice question, and whether the proposed cost levels need to be adjusted in the main survey.

Results from tests comparing the two stated preference formats will also be reported. See Section B, Question 4 for information on the actual tests.

**17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons why display would be inappropriate.**

NA.

**18. Explain each exception to the certification statement.**

NA.

## SUPPORTING STATEMENT

### PRETEST OF THE ELWHA RIVER DAM REMOVAL AND FLOODPLAIN RESTORATION ECOSYSTEM SERVICE VALUATION PILOT PROJECT SURVEY

OMB CONTROL NO. xxxx-xxxx

#### B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

**1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g., establishments, State and local governmental units, households, or persons) in the universe and the corresponding sample are to be provided in tabular form. The tabulation must also include expected response rates for the collection as a whole. If the collection has been conducted before, provide the actual response rate achieved.**

The eligible study population is defined as follows: U.S., non-institutionalized adults age 18 and older; limited to residents of Washington and Oregon. However, for the pretest requested in this ICR, we do not expect to extrapolate any conclusions of the pretest to the sample frame. This pretest is for methods testing only.

#### **Sample size and response rates**

For the first wave of the pretest, KN will send the survey to a sample of 2,188 panel members in Oregon and Washington. It is anticipated that KN will achieve approximately a 60% participation rate for approximately 1,313 completed surveys.

The sample size for the pilot study must be sufficiently large to allow us to address the following questions:

- ▶ Can statistical efficiency be improved by using the independent choice question format while providing WTP estimates consistent with the traditional format?
- ▶ Does the market for restoration of ecosystem services on the Elwha River extend beyond Western Washington, i.e., into Eastern Washington and Oregon? How do responses differ among these regions?
- ▶ Are the bid amounts appropriate for this policy question? Is the maximum sufficiently high to return relatively few positive votes, and are the midpoints of the range receiving an expected number of votes?

The pilot study will be stratified in two dimensions – geography and choice question format – leaving approximately 394 responses per choice question format in Washington and 130 responses per choice question format in Oregon per the sample allocation as described in Section B2. The traditional choice question format has four versions to cover all combinations for a main effects orthogonal design, asking respondents three choice questions apiece. The survey versions are structured so that no respondent will receive the same scenarios back to back.

From the pilot study, we want to understand WTP for the salmon program and forest program, and identify whether the geography or choice question formats yield different WTP estimates. We conducted a power analysis assuming a simple conditional logit model with no covariates other than the level of salmon restoration, forest restoration, and cost. The following table summarizes the expected power to detect differences in WTP values between the two choice question formats over a range of sample sizes, at an alpha of 5%. Because we are interested in generating robust WTP estimates at the state level, the results presented in this table should be compared to the sample allocation within each state.

Table 1. Predicted power of detecting a difference in WTP estimates between choice question formats, by sample size.		
Number of responses for each choice format	Power to estimate WTP for forest restoration	Power to estimate WTP for salmon restoration
20	45%	69%
40	55%	74%
60	61%	77%
80	65%	79%
100	68%	81%
120	70%	82%
140	72%	83%
160	74%	84%
180	75%	85%
200	77%	86%
220	78%	86%
240	79%	87%
260	80%	88%
280	81%	88%
300	81%	89%
320	82%	89%
340	82%	90%
360	83%	90%
380	84%	90%
400	84%	91%

We expect to achieve 80% power at approximately 260 responses for forests and approximately 90 responses for salmon. This indicates that we will likely be able to independently compare salmon WTP estimates for each choice format within each state, but will have to pool the responses across states to compare forest WTP estimates.

Given these power analysis results, plus our interest in evaluating the effectiveness of our bid design within geographic strata and choice question format, we anticipate that the 1,313 responses for the pilot will be sufficient. A smaller sample size would reduce our ability to robustly compare WTP estimates across the different strata.

For the second wave of the pretest, about 1,042 survey instruments will be sent out to households in Washington and Oregon in order to get 312 completed surveys.

This number is sufficient for refining, if necessary, the experimental design for the final survey.

A table summarizing the sampling universe for both waves of the pretest is shown below.

**Table 2. Pretest sample size and response rate**

Mode of data collection	Sample size	Completed surveys	Overall response rate
Internet (wave 1)	2,188	1,313	20% <sup>a</sup>
Mail (wave 2)	1,042	312	30%

a. The completion rate for the Internet wave is 60%, but the overall response rate is approximately 20%. The lower overall response rate results from the steps involved in the initial recruitment of participants into the sample (e.g., phone calls, administration of a screener), during which potential panelists are lost before becoming part of the sampled group.

- 2. Describe the procedures for the collection, including: the statistical methodology for stratification and sample selection; the estimation procedure; the degree of accuracy needed for the purpose described in the justification; any unusual problems requiring specialized sampling procedures; and any use of periodic (less frequent than annual) data collection cycles to reduce burden.**

### **Sample frame and sample selection**

Knowledge Network's (KN's) established Web panel sample, KnowledgePanel®, The Web-enabled panel comprises both Internet and non-Internet households prior to panel participation; KN supplies the non-Internet households with an Internet appliance and Internet connection. It also includes households with both listed and unlisted telephone numbers, cell-phone-only households, and no-phone households. The panel does not accept self-selected volunteers.

Originally, the panel's probability-based recruitment had been based exclusively on a national random digit dialing (RDD) frame. In April 2009, KN used an address-based sample (ABS) frame (to supplement the RDD frame) in response to the growing number of cell-phone-only households (CPOHHs) that are outside of the RDD frame. In 2010, KnowledgePanel® transitioned completely to ABS-sourced panel recruitment, ending recruitment using RDD and telephone methods, with the exception of some targeted Spanish-language telephone-based recruitment to support KnowledgePanel Latino.

ABS involves probability-based sampling of addresses from the U.S. Postal Service's (USPS's) Computerized Delivery Sequence File (CDSF). Randomly sampled addresses are invited to join KnowledgePanel® through an initial mailing (with a \$2 non-contingent incentive included), followed a week later by a postcard reminder and three weeks later by a final letter mailed to all non-responders. Telephone follow-up calls are made to those non-responders for whom a telephone number can be matched to their address.

The key advantage of the ABS sample frame is that it allows sampling of virtually all U.S. households. In sampling nomenclature, an estimated 97% of households are "covered" in this frame. Because the frame is address based, household telephone status is not a limiting factor, as residents can be contacted through the mail. KN's ABS experience has also revealed some advantages beyond the expected improvement in recruiting young adults and CPOHHs. There is

also a marked improvement in sample representativeness of minority racial and ethnic groups, as well as improved recruitment of households with less education and low incomes.

Currently, about 55% of KnowledgePanel® members are sourced from the more recent ABS recruitment samples. The balance is the more tenured, RDD-sourced members. The methodologies used to recruit this panel have been shown to achieve the same or similar quality standards established by prominent surveys conducted for Federal Government agencies that also use ABS, RDD, or area probability methods.

Response rates for different stages of the KnowledgePanel® are summarized in Table 3. Any measure of recruitment rate, profile, survey completion rate, and survey breakoff rate is specific to the study being evaluated. Thus the values listed below are a representative of a typical study implemented by KN. The final response rates for this study will vary.

Mean Recruitment Rate	0.144321
Weighted Profile Rate	0.657956
Survey Completion Rate	0.618103
Survey Breakoff Rate (out of Assigned)	0.052155
Cumulative Response Rate	0.058693

For the mail portion of the pretest, a mail survey firm will conduct a probability sample of adult residents in the adult population of Washington and Oregon. Given the nature of the survey (i.e., choice questions that the respondents will have to look at), a self-administered mail survey will be provided to respondents. The survey administration firm will use ABS based on the USPS Delivery Sequence File.

This population will be accessed through a sample of residential addresses with a questionnaire completed per address. The questionnaire will elicit an enumeration of the adult members of the household for later adult population weighting and estimations. The frame from which the sample will be drawn is the Computerized Delivery Sequence File (CDSF) created and maintained by the USPS.

The ABS for this study will be stratified by state, with 75% of the sample randomly selected from Washington and 25% randomly selected from Oregon. The 75% is a mild oversample of Washington, which has approximately 63% of the total number of households of the two states combined.

The mailing protocol for the mail portion of the study follows the researched and published “Tailored Design Method” (Dillman, 2009). A pre-notification letter will be mailed to all households in the sample about one week before the survey packet is mailed. The first mailing of the survey packet will include a cover letter, survey booklet, \$2 non-contingent incentive, and

postage-paid return envelope. One week after this mailing, a reminder postcard will be mailed to all households to encourage a speedy reply while the memory of the original mailed questionnaire is still fresh in residents' minds. Approximately three weeks after the first mailing of the survey packet, a second questionnaire will be mailed to all households that have not responded (and no \$2 incentive is included this time). Finally, about two weeks after this second questionnaire mailing, telephone reminder calls will be made to non-responding households in the sample for which a landline telephone number could be matched to the sample address. About 48–55% of the addresses in the sample may be successfully matched with a telephone number, although this may vary by state and degree of urbanity. We propose that all responding households receive a \$10 contingent post-incentive payment.

Sample letters and reminder post cards are included in Attachments.

The survey will not be conducted on an annual basis. This ICR is to request the pretest survey be administered only once in each of the two waves.

- 3. Describe the methods used to maximize response rates and to deal with non-response. The accuracy and reliability of the information collected must be shown to be adequate for the intended uses. For collections based on sampling, a special justification must be provided if they will not yield “reliable” data that can be generalized to the universe studied.**

### **Maximizing response rates**

The first step in achieving a high response rate is to develop an appealing questionnaire that is easy for respondents to complete. We spent significant effort on developing an effective survey instrument during the qualitative research phase. We hired experts on economic survey design and stated preference techniques to assist in the design and testing of this survey. The survey instrument benefited from input on earlier versions from several focus groups and cognitive interviews, and from peer review by experts in survey design and non-market valuation, as well as scientists who study the Elwha River. In the qualitative research phase, the information presented was tested to ensure that key concepts and terms were understood, figures and graphics were developed by professional graphic artists and tested for proper comprehension and appearance, and key economic and design issues were evaluated.

For both waves of the pretest, we will employ the practices that have been employed successfully on other projects requiring OMB approval:

- ▶ Use of the federal agency name in the email invitation
- ▶ Both survey-specific and non-survey-specific incentives (as described in response to Part A, Question 9) will be used to improve response rates.

The results of this pilot using the KnowledgePanel will solely be used to design and inform the development and structure of the final study. These pilot results will not be used to infer the general population's preferences.

## Non-respondents

For the purposes of the pretest, we do not plan any non-response follow-up study. However, for the final administration of the survey, we will plan a separate non-response follow-up study.

- 4. Describe any tests of procedures or methods to be undertaken. Tests are encouraged as effective means to refine collections, but if ten or more test respondents are involved, OMB must give prior approval.**

In the first wave of the pretest, the Team plans to test two choice question formats. The tests include a comparison of the point estimates and standard errors of the cost coefficient from the WTP model, a tabulation and statistical comparison of questions regarding respondents' perceived consequentiality of the choice questions, a tabulation and statistical comparison of the length of time it took respondents to complete the choice questions, and a tabulation and statistical comparison of non-responses to the choice questions.

Findings from the summary statistics, WTP model, and choice question format comparisons will then be incorporated in the supporting statement for the full survey, which will be submitted to OMB for final approval. This supporting statement will include details on the methods of analysis, as well as plans for tabulation and publication of project results.

- 5. Provide the names and telephone numbers of individuals consulted on the statistical aspects of the design, and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.**

Stratus Consulting Inc. of Boulder, Colorado, was selected by NOAA to conduct the study through a competitive contract procedure. Dr. Megan Lawson of Stratus Consulting serves as the Project Manager, and Mr. David Chapman of Stratus Consulting serves as Project Technical Advisor. Both Dr. Lawson and Mr. Chapman have extensive experience in applied environmental and natural resource economics involving the use of statistical methods. Contact information follows:

Dr. Megan Lawson: 406-219-3633  
Mr. David Chapman: 303-381-8289

Stratus Consulting hired Professor Emeritus Richard Bishop of the University of Wisconsin, Department of Agricultural and Applied Economics, to serve as Principal Investigator. Professor Bishop is a well-known environmental and natural resource economist and has conducted many applied projects involving the use of statistical methods. Contact information follows:

Professor Richard Bishop: 608-238-7473

Stratus Consulting hired Dr. Barbara Kanninen to advise on experimental design issues. Dr. Kanninen is an expert in statistical methods for stated preference studies. Contact information follows:

Dr. Barbara Kanninen: 703-536-6949

The rest of the research team includes Dr. Anthony Dvarskas and Dr. Peter Edwards for NOAA.

Peer review team:

Dr. Richard Carson, University of California at San Diego  
Dr. Adam Domanski, IM Systems Group

In addition, the team has relied extensively on federal researchers to develop foundational information for the survey and to check specific facts about the restoration actions:

Dr. George Pess  
Supervisory Research Fisheries Biologist  
NOAA Fisheries

Dr. Kurt Jenkins  
Research Wildlife Biologist  
U.S. Geological Survey Forest and Rangeland Ecosystem Science Center

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## ATTACHMENT A. SUMMARY OF QUALITATIVE RESEARCH

Beginning in February 2012, we conducted focus groups and cognitive interviews over 13 evenings with residents of Seattle, Spokane, and Port Angeles (Washington) and Portland (Oregon). We used these focus groups to determine which attributes we should include in our survey and how best to describe them to the general public. We experimented with many graphics and choice question formats to determine which approach communicated concepts the most clearly without putting excess cognitive burden on respondents. Table A.1 summarizes the date, location, number of participants, and main goals for each round.

**Table A.1. Focus group and cognitive interview summary**

<b>Date</b>	<b>Location</b>	<b>Number of participants</b>	<b>Main goal of groups</b>
February 28, 2012	Seattle, WA	19	To determine what terms and concepts should be used and present two approaches to describing ecosystem restoration.
March 22, 2012	Seattle, WA	18	To test the scenario for areas needing clarification and identify gaps or superfluous material.
April 5, 2012	Seattle, WA	14	To test simplified introductory material and participant understanding of graphs.
April 17, 2012	Seattle, WA	19	To further refine graphs and scenario and test payment vehicle and ranking question.
May 15, 2012	Seattle, WA	16	To introduce reservoir site revegetation and test a new choice question format.
May 29, 2012	Portland, OR	20	To test a reorganized, shortened instrument and new choice question format.
July 10–11, 2012	Spokane, WA	36	To test a description of a keystone species, new graphics, and several versions of the choice question.
July 26, 2012	Seattle, WA	20	To test a new version of the choice question and changes to the description of the attributes.
August 7–8, 2012	Seattle, WA and Portland, OR	40	To test new formatting and graphics and alternative versions of the choice question.
September 5–6, 2012	Seattle, WA and Port Angeles, WA	39	Cognitive interviews to ensure that wording and graphics are clear and that the cognitive burden is not too high, and to test alternative versions of the choice question.

## **Qualitative research topics**

Several themes evolved during the qualitative research phase of this study, including:

- ▶ The role of dams in the survey
- ▶ The best way to communicate ecological concepts
- ▶ The attributes we included and excluded
- ▶ The levels and measure of the attributes
- ▶ Whether graphs were helpful or detrimental to respondents' understanding
- ▶ The payment vehicle
- ▶ The format for the choice question.

### ***The role of the dams in this survey***

When we began conducting focus groups in February 2012, the removal of the dams on the Elwha River was well underway and well publicized, particularly in the Pacific Northwest, where we expected this survey to be administered. Given the likelihood that a significant proportion of respondents had heard about dam removal activities on the Elwha River, we did not want to risk developing an unrealistic baseline scenario in which the dams would not be removed. We expected that many respondents who were aware of the dam removal might find the survey confusing or untrustworthy if we told them that the dams might not be removed. To avoid this potential scenario rejection, we told participants that the dams were being removed, but that they could help to decide how quickly the ecosystem would recover after they were removed.

The subject of the dams had to be managed carefully. In early versions of the instrument, we presented considerable detail about when and why the dams were constructed and why they were now being torn down. We found that this placed too much emphasis on the dams themselves, leaving participants focused on questions related to the dams, when our goal was for them to consider restoration after dam removal. We also found, however, that too little information (e.g., simply stating, "The dams are being torn down") left respondents with too many lingering questions. A short section of roughly a quarter-page seemed to give most respondents enough information without overemphasizing the dams.

### ***Communicating ecological concepts***

Our goal for this survey is to elicit respondent preferences for restored ecological services. To accomplish this, we had to communicate the roles that returning fish and trees play in the ecosystem. In the current version of the survey, we accomplished this by introducing and defining terms and creating informative, non-technical diagrams.

Through the qualitative research process, we learned that participants are more familiar with the concept of an ecosystem and its interconnected components than we anticipated. We did not encounter any participants who were unfamiliar with the term "ecosystem" or did not understand the concept once we defined it. Similarly, we introduced readers to the term "keystone species." While very few participants were familiar with this term before reading the survey, all participants questioned were able to define it accurately, in their own words, after reading the survey.

We supported the notion of salmon as a keystone species using an illustration of a food web, with salmon at the center and arrows connecting it to plants and animals that depend on it for food and fertilization. Participants in the focus groups and cognitive interviews informed us that this diagram, displayed following the introduction of the term “keystone species,” helped them to consider salmon restoration for its effects on the ecosystem, rather than just on species numbers.

Although the revegetation of reservoir sites does not have as many direct linkages to other ecosystem components as do salmon, it will affect many bird and animal species. We describe this verbally and provide a supporting diagram showing the vegetation and types of animals associated with a mature forest.

### ***Identifying relevant attributes***

One of the first questions we had to address was which ecosystem services to include in the survey. Given the ecological importance of returning anadromous fish, we planned to include salmon and steelhead restoration as one of the survey’s attributes. Initially we hoped to include the restoration of important ecological processes such as nearshore estuary and beach nourishment, but the first focus groups revealed that participants’ prior understanding was so limited that it was not feasible to include these processes in this survey.

The earliest versions of the instrument thus included only salmon and steelhead restoration, and a description of their role in the ecosystem. In the initial phase, two restoration programs – fish stocking and habitat improvements – were the attributes being considered. Respondents were given the choice of doing nothing, doing one of the restoration programs, or doing both programs.

Although this approach worked well, it resulted in a survey focused only on ecosystem services related to the restoration of anadromous fish. To expand participants’ areas of consideration into different components of the ecosystem, we included revegetation of the former reservoir sites as another possible activity.

In the early focus groups, we used the individual restoration activities, alone or bundled together, as the attributes among which participants could choose. To make it more realistic and interesting, however, we changed our approach to ask them to identify the recovery time path they prefer for the restoration of salmon and the restoration of forests and wildlife. Some participants may prefer to have more ecosystem services in the long run, while others may focus more on the most restoration in the shortest period of time. We plan to use this approach for the pretest survey.

Ultimately, this will allow us to estimate a participant’s willingness to pay for a range of recovery paths for salmon as a keystone species and forests as wildlife habitat.

### ***Measuring the attributes***

Using feedback from focus group participants, we identified the most effective way to measure the attributes. For both salmon and forest and wildlife restoration, we found that comparing restored levels to historical levels is the most meaningful for participants.

For salmon restoration, we began with the annual number of spawning fish, but participants wanted to have a sense of whether this was relatively few or many fish. We then measured restoration as the percentage of the river's current carrying capacity for salmon, but found this concept difficult to convey. We thus settled on the percentage of historical levels of fish. Because of pressure from commercial and recreational fishing and environmental factors beyond the scope of restoration efforts, the percentage of returning fish will not reach 100%. Focus group participants seemed to accept this fact, but we will test the effect of the maximum achievable level on participants' preferences by varying it during the pretest survey.

We measure forest and wildlife restoration as the percentage of forests and wildlife that are restored to their previous condition, i.e., as they were before the dams were built. The survey states that 100% recovery means that the forests and wildlife at the old reservoir sites will return to their previous state, i.e., before the dams were built.

### *Using graphs*

Graphs can be helpful in summarizing information, particularly restoration levels over time. However, we were concerned that graphs can be confusing for some respondents and may result in them reading the survey less carefully. Over the course of several focus groups, we found ways to make the graphs clearer and more intuitive, and to provide information to those who do not like to use graphs.

More people found the graphs helpful once we limited the information in them. To do this, we reduced the number of curves, limiting them to those that did not cross. In other words, the program with the smallest increase in salmon at five years also had the smallest increase in salmon at 100 years. We also limited the vertical lines to signposts at the particular time intervals we had discussed in the text. These steps allowed the graphs to convey the information more quickly.

To further increase the accessibility of the graphs, we added icons (i.e., a fish for salmon restoration and a tree for forests and wildlife) where each line crossed the highlighted time interval. Inside the icon we showed the number of salmon or the percentage of forest restoration in that year. This helped to make the graphs less intimidating and quickly understandable for more respondents.

Even with these refined graphs, we still found participants who were reluctant to use them. To summarize information for them, we included a table below the graph that uses the same colors and time intervals. This table has a similar format to the choice question, which helps to familiarize participants with the layout.

### *Payment vehicle*

We are using a surcharge on electricity bills as the payment vehicle in this survey. With some refinement of the description of why and how participants would pay, we found that most found it reasonable that they would be asked to pay, and that a surcharge on their electric bill was acceptable.

We did not experiment with a sales or income tax because we hoped to implement the survey in Washington, which has no income tax, and Oregon, which has no sales tax. Previous stated preference research has demonstrated that respondents may not believe they would pay for programs through higher consumer goods prices, as they could simply buy fewer or different products.

### *Choice question formats*

The qualitative research phase helped us to develop a choice question format that presents a sufficient amount of information and a sufficient number of choices to make the question useful without overwhelming respondents. While we have found that the format we submitted works well with focus group participants, we plan to test an alternative version in the pretest to ascertain whether the formats have statistically discernible effects on responses.

With two service categories (i.e., salmon restoration and forest and wildlife restoration) and three alternatives for each (i.e., no further actions, limited actions, and extensive actions), we had nine possible combinations of programs from which participants could choose. In the first focus groups when we tested choice question formats, we tried presenting respondents with all nine combinations and asked them to identify their most and least preferred. While some gave us well-reasoned explanations for their choices, for many this seemed to be an overwhelming task. This made us concerned that survey respondents would not carefully consider their answers. Alternatively, we presented participants with a subset of three or four alternatives, always including the “do nothing more” option and varying the combinations of “limited” and “extensive” alternatives. While the cognitive burden was much lower using this approach, many participants objected when the alternative that they preferred was not offered.

To allow participants the most flexibility, we split the choice question into two parts: one for salmon restoration and one for forest and wildlife restoration. The total cost to participants would be the sum of their two selections. By experimenting with different formats, we were able to have participants make their selection independently but understand that they would have to pay for the sum of the two selections. This approach is novel in the stated preference literature. We will test its reliability during the pretest by splitting the sample: half of the respondents will receive this format and half will receive the more traditional format in which attributes are bundled.

We also experimented with the appropriate level of information to include in the choice questions. Too little information may lead to participants not taking the question seriously, or accurately remembering what their choices implied. Too much information may lead to participants being overwhelmed and not carefully reading the table. In several focus groups, we presented participants with different versions of the choice question, containing different amounts of information. Some had only the costs associated with each alternative; others had the number of years until the maximum level would be achieved; and others presented the levels of restoration at three or four time intervals. We found that most participants preferred having the time path summarized for them so that they did not have to reference earlier parts of the survey. We are therefore using that approach in the pretest instrument.

To reduce the amount of information in the choice question, we experimented with showing percentages or levels of salmon. We found that participants were divided as to which approach they preferred. In response to participant feedback and suggestions from other researchers in the field, we chose to include both numbers in the table.

# ELWHA RIVER RESTORATION



**What do YOU think  
should be done?**

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other suggestions for reducing this burden to Tony Penn, NOAA NOS, 1305 East-West Highway, Silver, Spring, MD 20910.

The identity of individuals will be protected throughout the data acquisition and analysis process through the use of administrative controls on access to individual identification information, and individual responses will not be disclosed to the public. Notwithstanding any other provisions of the law, no person is required to respond to, nor shall any person be subjected to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number.

# Elwha River Restoration Survey

## Background and Purpose

Steps that would improve the environment of the Elwha River in western Washington are being considered.

- Information will be provided so that you can answer the questions, even if you are not familiar with the area.
- Public officials will use the results of this survey and other information to decide what to do.

Choices to be made soon will determine what is done and ***may cost you money***. Please take a few minutes to fill out this survey.

## The Elwha River

The maps on the insert show the Elwha River and the streams flowing into it.

- The Elwha River is more than 70 miles long.
- The river flows mainly from south to north before it empties into the Strait of Juan de Fuca, which connects the Pacific Ocean and Puget Sound.
- The maps show where the Elwha Dam and the Glines Canyon Dam were built.
- The map also shows other rivers that, like the Elwha River, have salmon.
- The largest city near the river is Port Angeles, WA, six miles away, with a population of about 20,000.



Before the river reaches the Elwha Dam site, it runs through steep, narrow valleys and canyons. This picture shows a scene from this part of the river. Most of the areas that run through these valleys are in Olympic National Park, in remote areas with limited or no access by road.



This picture shows the river as it empties into the Strait of Juan de Fuca. It also shows where a number of people live, including many members of the Lower Elwha Klallam Tribe.

### The dams on the Elwha River are being torn down.

- The Elwha Dam was built in 1910. It is outside Olympic National Park, and **was recently taken down**.
- The Glines Canyon Dam, which is inside the national park, was built before the area was set aside as a national park. The dam was built in 1920 and **will be torn down by 2013**.
- The dams were taken down because they were old and obsolete. It is less expensive to take them down than to bring them up to modern standards.

	YES	NO
1. Before today, had you heard of the Elwha River?	<input type="checkbox"/>	<input type="checkbox"/>
2. Have you ever visited the Elwha River?	<input type="checkbox"/>	<input type="checkbox"/>
3. Have you ever visited Olympic National Park?	<input type="checkbox"/>	<input type="checkbox"/>
4. Before today, had you heard or read about removal of the dams on the Elwha River?	<input type="checkbox"/>	<input type="checkbox"/>

# Salmon and the Elwha River Ecosystem

The Elwha River supports many kinds of plants and animals.

- The Elwha River **ecosystem** includes these plants and animals interacting with their physical surroundings.
- Dense forests typical of the coastal Pacific Northwest grow along the river.

Before the dams were built, salmon were part of the ecosystem throughout the Elwha River.

- Young salmon swam down the Elwha River and into the ocean.
- The salmon that survived to adulthood swam back up the Elwha River to spawn and die, beginning the life cycle again.

Scientists consider salmon to be a keystone species for the entire Elwha River ecosystem.

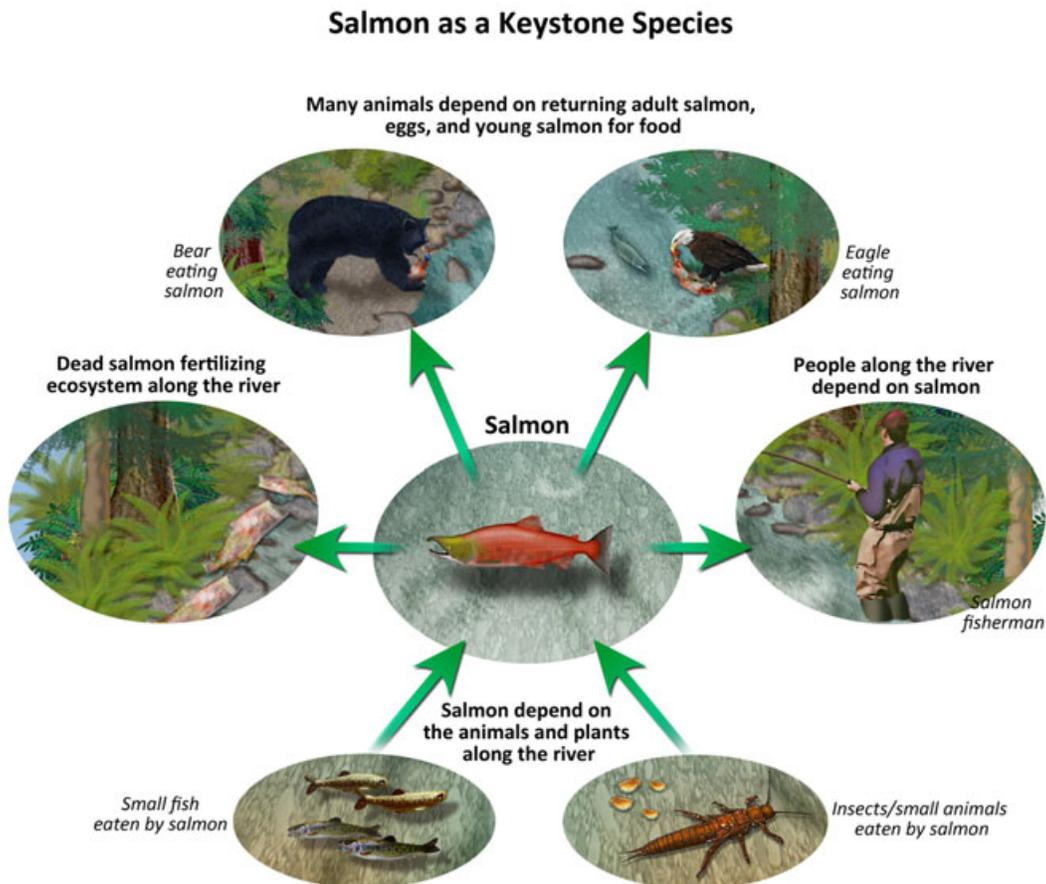
- A **keystone species** plays an important role in holding an ecosystem together. If a keystone species is removed, the entire ecosystem changes.

People also depended on the salmon.

- Visitors and people living along the river, including members of the Lower Elwha Klallam Tribe, fished for Elwha River salmon.

The Elwha River salmon contributed to the much larger ocean ecosystem.

- Orcas, sea lions, and other sea animals ate salmon from the many rivers in the Northwest, including the Elwha River.



This picture shows salmon as a keystone species at the center of the Elwha River ecosystem before the dams were built.

## Forests and the Elwha River Ecosystem

Before the dams were built, forests grew along the entire length of the Elwha River.

- These areas contained a larger variety of trees and other plants than forests farther away from the river.
- These forests were home to a rich variety of wildlife, including both large animals, such as elk and deer, and small animals, such as raccoons, mink, mice, chipmunks, squirrels, frogs, turtles, and salamanders.
- Many birds also used these forests, including songbirds, wood ducks, ospreys, woodpeckers, and others.

The dams had two effects on the Elwha River ecosystem that are being considered in our study:

- They prevented salmon from moving upstream to spawn, resulting in the loss of a keystone species from most of the river.
- Lakes behind the dams covered forests, destroying some wildlife habitat.

### Forests as an Important Ecosystem



This picture shows forests as an important part of the Elwha River ecosystem before the dams were built.

*Please check one box*

5. How well do you feel you understood what you just read about the Elwha River ecosystem?

I understood it very well.

I have gained some understanding, but some parts were hard to understand.

I didn't understand it at all.

6. Do you have any questions about the Elwha River ecosystem? If so, please write them here.

## Elwha River Salmon Restoration

**Because the dams blocked the river, salmon could no longer swim upstream to spawn, and their numbers have declined by more than 90%.**

- The areas that salmon could not reach are in parts of the river shown in light blue on the maps.
- A small number of salmon still use the part of the river downstream of the Elwha Dam site, which is shown in dark blue on both maps.
- Some native salmon still spawn there, but many others are hatchery fish.
- Native salmon are those that are born in the Elwha River, go out to the ocean for part of their lives, and return to the Elwha River to spawn.

**When the dams were built, the Elwha River ecosystem upstream of the dams no longer had its keystone species.**

- As a result, the number of bears, eagles, otters, mink, raccoons, and other animals and birds may have declined because they did not have salmon to eat.
- The forest and other plants along the river no longer had the fertilizer from dead salmon.

**The ocean ecosystem was also affected.**

- Orcas, sea lions, and other sea animals had fewer salmon to eat.

**Scientists at universities and research centers have studied Elwha River salmon for many years.**

- They are drawing on 100 years of research in the Pacific Northwest, British Columbia, and Alaska, as well as their experience with methods for increasing the number of fish returning to various rivers.
- They have studied how many salmon could be restored in the Elwha River and how long it would take.

**These scientists estimate that before the dams were built, about 300,000 salmon returned to the Elwha River each year, on average. This is considered the *historical level* of salmon.**

- Depending on what is done after the dams are removed, these scientists predict that the number of salmon returning to the Elwha River each year could reach up to 60% of historical levels (180,000 salmon return each year).
- They predict that after dam removal, the number of salmon returning to the Elwha River would not reach historical levels for two reasons:
  - First, people have made changes to the salmon habitat, only some of which can be returned to its previous condition.
  - Second, once they are in the ocean, Elwha River salmon would mix with fish from other rivers and be caught by recreational and commercial fishermen.

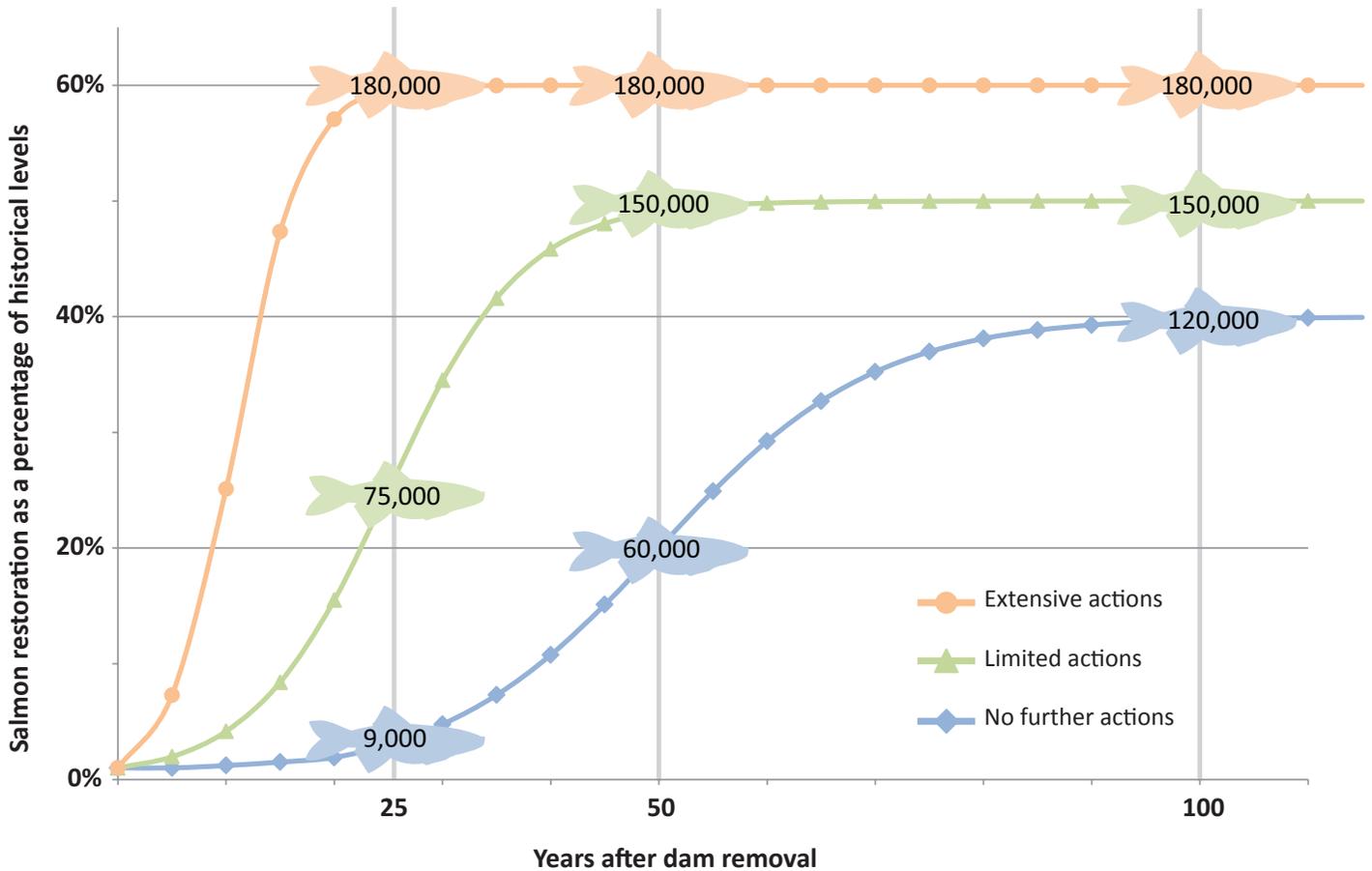
**Steps could be taken to increase the number of salmon more quickly and allow more to return each year.**

- Salmon habitat could be improved downstream of the Elwha Dam site.
  - More spawning areas in this part of the river would lead to a rapid expansion in the number of salmon there.
  - Some of these salmon would stray upstream of the Elwha Dam site, helping to establish more groups throughout the river.
- Elwha River salmon could be raised in a new salmon nursery and released upstream to establish salmon populations upstream.
  - The salmon nursery would be built and operated using the latest research on and experience in ways to successfully raise native salmon for release into the wild.
  - Such salmon nurseries have been successful in British Columbia and Alaska.
  - Eggs from the native Elwha River females would be collected, fertilized by native males, and placed in the nursery to grow into young fish.
  - The young fish would be put into the Elwha River upstream of the dam sites.
  - These areas are in nearly pristine condition, making them ideal places for young salmon to live and grow.

**Three alternatives are being considered that involve different levels of salmon restoration. These three alternatives reflect the current knowledge of Elwha River scientists.**

<b>Salmon Alternative 1 No further actions</b>	<b>Salmon Alternative 2 Limited actions</b>	<b>Salmon Alternative 3 Extensive actions</b>
Elwha River scientists predict that by doing nothing more than dam removal, the number of salmon would level off at about <b>40% of historical levels</b> (120,000 salmon return each year) in about <b>100 years</b> .	Elwha River scientists predict that with limited salmon restoration, the number of salmon would level off at about <b>50% of historical levels</b> (150,000 salmon return each year) in about <b>50 years</b> .	Elwha River scientists predict that with extensive salmon restoration, the number of salmon would level off at about <b>60% of historical levels</b> (180,000 salmon return each year) in about <b>25 years</b> .
<ul style="list-style-type: none"><li>• No salmon habitat would be improved.</li><li>• Because there would be no habitat improvements, the number of salmon returning each year would level off at a lower level than with Alternatives 2 and 3.</li></ul>	<ul style="list-style-type: none"><li>• Only some salmon habitat would be improved.</li><li>• These limited habitat improvements would allow the number of salmon returning each year to level off at a higher level than with Alternative 1.</li></ul>	<ul style="list-style-type: none"><li>• As much salmon habitat as possible would be improved.</li><li>• These extensive habitat improvements would allow the number of salmon returning each year to level off at a higher level than with Alternatives 1 and 2.</li></ul>
<ul style="list-style-type: none"><li>• No Elwha River salmon would be released upstream.</li><li>• The increase in the number of salmon would happen less quickly than with Alternative 3.</li></ul>	<ul style="list-style-type: none"><li>• No Elwha River salmon would be released upstream.</li><li>• The increase in the number of salmon would happen less quickly than with Alternative 3.</li></ul>	<ul style="list-style-type: none"><li>• Extensive numbers of native Elwha River salmon would be released upstream.</li><li>• Releasing these salmon would increase the number of salmon returning each year more quickly than with Alternatives 1 and 2.</li></ul>

## Timelines for Salmon Restoration



**Table 1. Salmon restoration alternatives**

Time since dam removal	Salmon Alternative 1 No further actions	Salmon Alternative 2 Limited actions	Salmon Alternative 3 Extensive actions
25 years after dam removal	3% of historical levels (9,000 salmon return each year)	25% of historical levels (75,000 salmon return each year)	60% of historical levels (180,000 salmon return each year)
50 years after dam removal	20% of historical levels (60,000 salmon return each year)	50% of historical levels (150,000 salmon return each year)	60% of historical levels (180,000 salmon return each year)
100 years after dam removal	40% of historical levels (120,000 salmon return each year)	50% of historical levels (150,000 salmon return each year)	60% of historical levels (180,000 salmon return each year)

Table 1 shows the percentages of historical levels of returning salmon that are possible. These percentages are taken from the timelines in the graph above.

*Please check one box*

7. How well do you feel you understood what you just read about salmon restoration alternatives?

I understood the alternatives very well.

I have gained some understanding of the alternatives, but some parts were hard to understand.

I didn't understand the alternatives at all.

8. Do you have any questions about salmon restoration in the Elwha River? If so, please write them here.

## Forests and Wildlife Recovery at the Old Lake Sites

When the dams were completed, a total of about 5 miles of forests along the Elwha River were covered with water to make the two lakes behind the dams.

- This would be about 7% of the total length of the Elwha River, which is about 70 miles.
- A total of 800 acres of forests were covered. This is equal to about 800 football fields.

**This picture shows the lake site after the Elwha Dam was removed last spring.**

- The stumps are from trees cut down before the lake began to fill.
- The Glines Canyon Dam's lake bottom would look like this after that dam is removed.

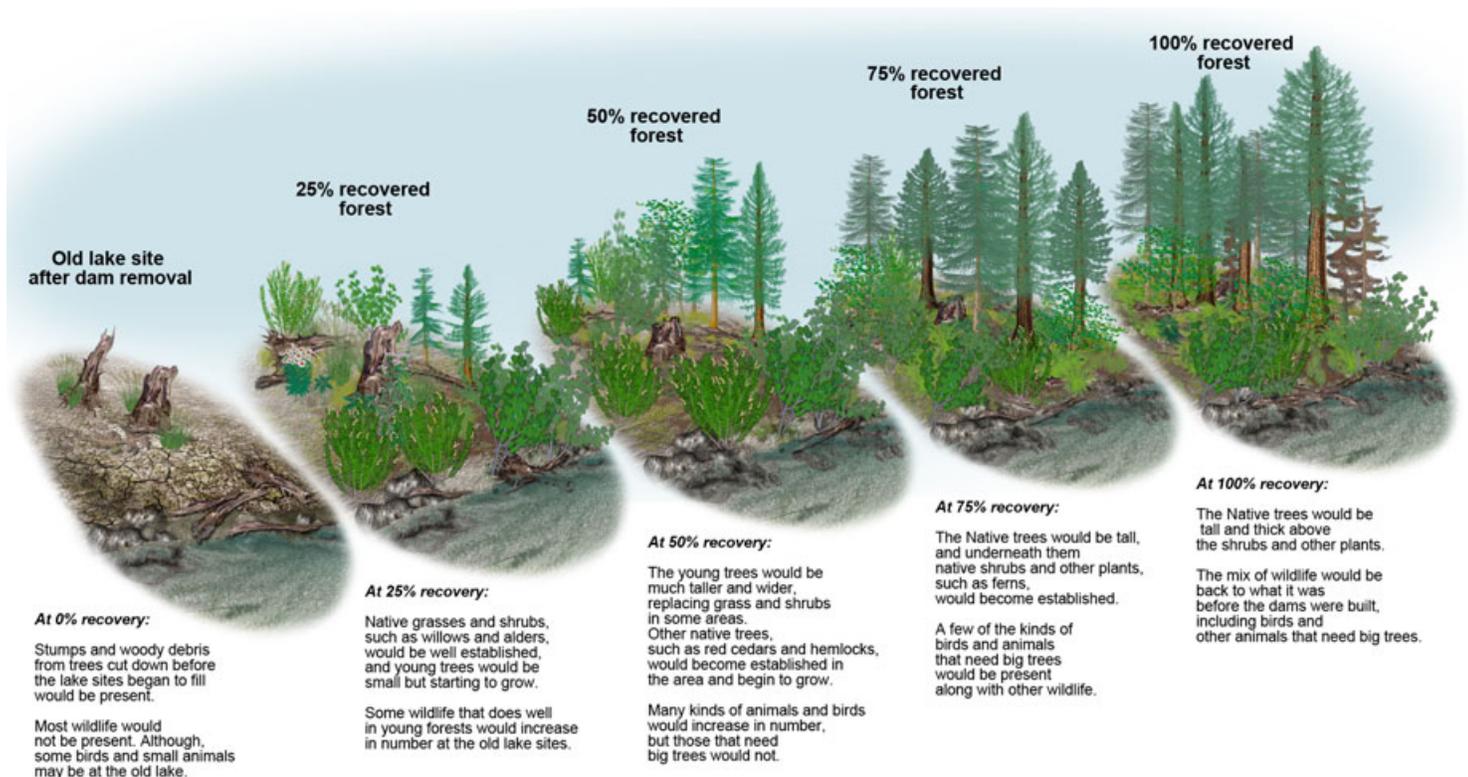


The old lake site after removal of the Elwha Dam.

**Elwha River scientists are studying how the forests and wildlife might recover once both dams are removed.**

- These scientists can draw on many years of research on how forests grow after lakes are drained.
- It would take some time, but scientists predict that 100% recovery of the forests and wildlife is possible.
  - 100% recovery means that all the forests and wildlife will return to what they were like before the dams were built.
  - Some birds and other wildlife do best living in mature forests with big trees; 100% recovery will not be reached until the young trees are large enough to support them.

**Progress toward recovery will be described as percentages of full recovery, as illustrated in this diagram.**



**This picture shows the progress of forests and wildlife recovery.**

**Once the dams are removed, forests and wildlife would eventually recover at the old lake sites.**

- If nothing else is done, progress would be slow for many decades after the lakes are drained.
  - Because of erosion, it would take several years before the soil could stabilize enough to support plants.
  - Weeds that grow faster than native plants and trees would become established.
  - Because of erosion and weeds, native grasses, trees, and shrubs would not start growing at the old lake sites for about 50 years.
- It would take about 200 years for the forest to grow enough to support the birds and other animals that need big trees.

**Steps can be taken to restore the forests and wildlife at the old lake sites more quickly.**

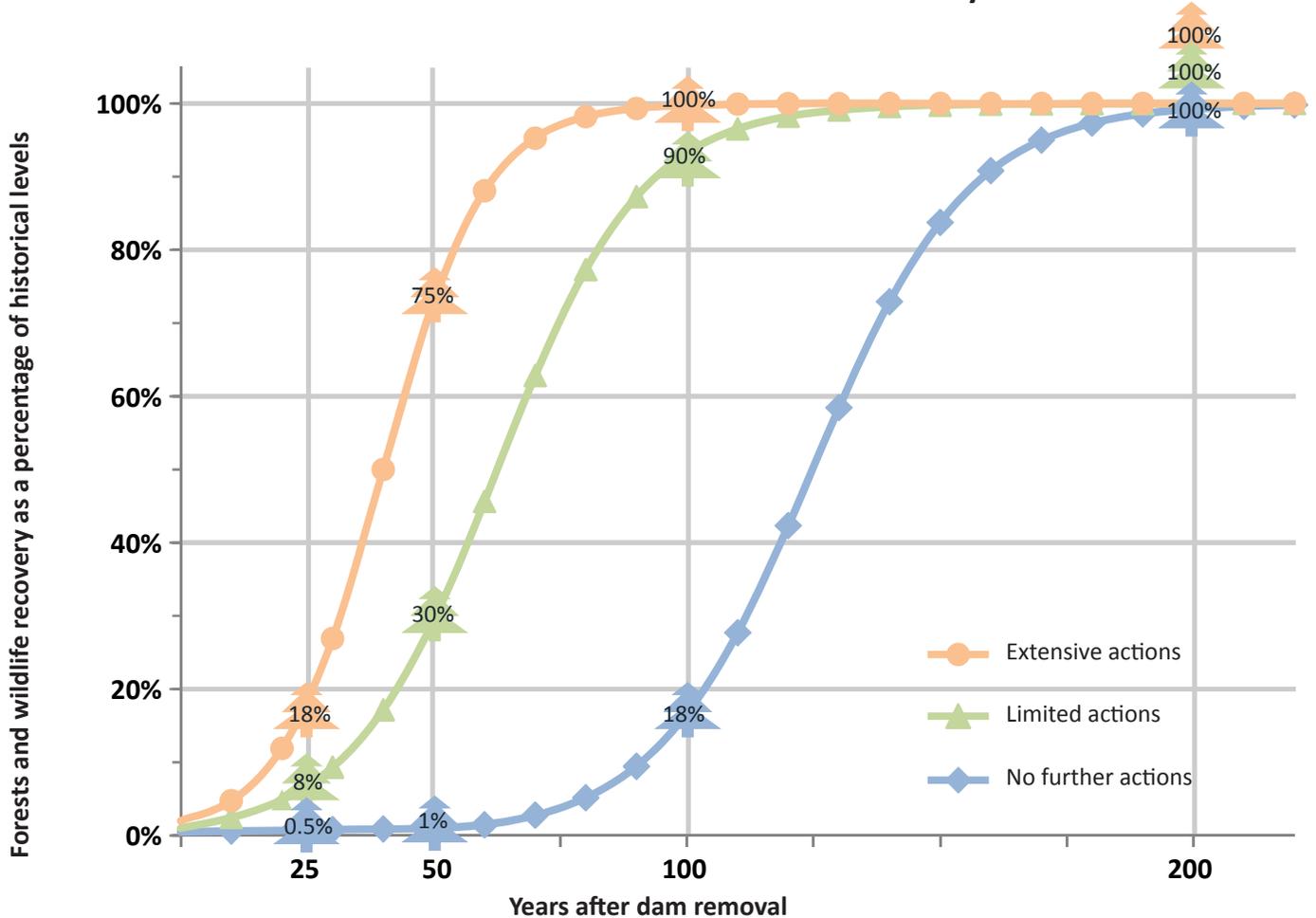
**Native grasses, shrubs, and trees could be planted.**

- Planting native grasses and shrubs, such as willows and alders, would reduce erosion and prevent weeds from taking over.
- Planting native trees, such as Douglas firs and cottonwoods, would give them a much earlier start than they would get with natural seeding.
- Planting native grasses, shrubs, and trees would eventually start new plants in neighboring areas without the help of people.

**Three alternatives are being considered that involve different levels of forests and wildlife recovery at the old lake sites.**

<b>Forests and Wildlife Alternative 1 No further actions</b>	<b>Forests and Wildlife Alternative 2 Limited actions</b>	<b>Forests and Wildlife Alternative 3 Extensive actions</b>
<p>Elwha River scientists predict that if no further actions are taken after the dams are removed, <b>100% recovery</b> of forests and wildlife would be achieved in about <b>200 years</b>.</p>	<p>Elwha River scientists predict that if native grasses, shrubs, and trees are planted in some limited areas, <b>100% recovery</b> of the forests and wildlife would be achieved in about <b>125 years</b>.</p>	<p>Elwha River scientists predict that if native grasses, shrubs, and trees are planted in more extensive areas, <b>100% recovery</b> of the forests and wildlife would be achieved in about <b>90 years</b>.</p>
<ul style="list-style-type: none"><li>• No native grasses, shrubs, or trees would be planted.</li></ul>	<ul style="list-style-type: none"><li>• Native grasses, shrubs, and trees would be planted in some areas.</li></ul>	<ul style="list-style-type: none"><li>• Native grasses, shrubs, and trees would be planted in as many areas as possible.</li></ul>
<ul style="list-style-type: none"><li>• Because there would not be any actions to restore the old lake sites, it would take more time for the forests and wildlife to achieve 100% recovery than with Alternatives 2 and 3.</li></ul>	<ul style="list-style-type: none"><li>• Planting in limited areas would allow the forests and wildlife to achieve 100% recovery in less time than with Alternative 1.</li></ul>	<ul style="list-style-type: none"><li>• Planting in extensive areas would allow the forests and wildlife to achieve 100% recovery in less time than with Alternatives 1 and 2.</li></ul>

## Timelines for Forests and Wildlife Recovery



**Table 2. Forests and wildlife restoration alternatives**

Time since dam removal	Forests and Wildlife Alternative 1 No further actions	Forests and Wildlife Alternative 2 Limited actions	Forests and Wildlife Alternative 3 Extensive actions
25 years after dam removal	0.5% recovered	8% recovered	18% recovered
50 years after dam removal	1% recovered	30% recovered	75% recovered
100 years after dam removal	18% recovered	90% recovered	100% recovered
200 years after dam removal	100% recovered	100% recovered	100% recovered

Table 2 shows the percentages of forests and wildlife that would be recovered in 25, 50, 100, and 200 years after dam removal, depending on which alternative is adopted. The percentages are taken from the timelines in the graph above.

***Please check one box***

9. How well do you feel you understood what you just read about forests and wildlife restoration alternatives?

I understood the alternatives very well.

I have gained some understanding of the alternatives, but some parts were hard to understand.

I didn't understand the alternatives at all.

10. Do you have any questions about forests and wildlife recovery at the old lake sites? If so, please write them here.

# What Are Your Opinions on the Alternatives?

## Benefits and Negative Impacts

### Restoring the Elwha River ecosystem would benefit people.

- Some people may like knowing that natural ecosystems are being restored, even if they do not personally visit them.
- Sport and commercial fishermen would benefit from more salmon in the river and ocean.
- People visiting the river would eventually see tens of thousands of salmon returning to the river to spawn.
- In the future, visitors to the area and local residents would be able to enjoy forests, birds, and other wildlife at the old lake sites.
- The Lower Elwha Klallam Tribe supports restoration efforts because a restored ecosystem is important to them in many ways.
  - A restored Elwha River ecosystem has much cultural and religious significance for them.
  - In the future, because there would be many more salmon in the river, members of the Lower Elwha Klallam Tribe would be able to catch many more of them.

### The more that is done after the dams are removed, the sooner these benefits will happen.

### Restoring the Elwha River ecosystem would also have some negative impacts, however, which include the following:

- As the number of young salmon using the river increases, they would compete with local trout for food and habitat.
  - As the number of salmon increases, there will be fewer local trout.
- Improving salmon habitat and planting native grasses, shrubs, and trees may disturb local wildlife until the activities are completed in about five years.
- Doing more after the dams are removed would involve costs.

### How costs would be paid for is the topic of the next section.

## How Would Restoration Be Paid For?

**Money for removing the dams was collected years ago. At that time, no additional money was collected for additional actions to restore salmon, forests, and wildlife.**

- If no further action is taken after the dams are removed, there will be no additional cost to the public.

**If additional restoration actions are taken, the costs would be shared across various groups.**

- Sport fishermen, commercial fishermen, and national park visitors would pay a share of the costs.
  - The funds would come from fees already collected for entrance to national parks and for fishing licenses; no new fees would be collected.
  - Some of the fees that are currently being collected would be diverted to pay for Elwha River ecosystem restoration, rather than on other projects.
- The Lower Elwha Klallam Tribe would also pay a share of the costs.
- The rest of the costs would be paid for by the general public in Washington and Oregon.

**The general public's share of the costs would be collected by adding surcharges to 2013 electricity bills.**

- The surcharge on your electricity bill would last for only one year: 2013. By law, no surcharges would be added in 2014 or thereafter.
- All the money would go into the Elwha River Restoration Trust Fund.
- A nonprofit environmental organization would be formed to manage the trust fund.
- By law, this trust fund could be spent only on Elwha River ecosystem restoration activities.
- All the money would be collected in 2013, and then paid out as needed.
- All the money would be collected in the first year to ensure that there is enough to complete the work.

## What Do You Think Should Be Done After Dam Removal?

**In a moment, you will be asked about which alternatives you think are the best. Here are some things to consider:**

- Public officials will take the results of this survey into account when they choose what to do.
- The costs, if any, would be added to your 2013 electricity bill.
- By law, no money collected for Elwha River ecosystem restoration could be spent on other things.
- You might decide that no further actions should be taken after the dams are removed, or you might choose other alternatives.
- The choice is yours. Our job is to learn what you think and report the results to the public officials who will decide.

For easy reference, the tables below summarize the alternatives as they were presented to you earlier.

**Table 3. Salmon restoration alternatives**

Time since dam removal	Salmon Alternative 1 No further actions	Salmon Alternative 2 Limited actions	Salmon Alternative 3 Extensive actions
25 years after dam removal	3% of historical levels (9,000 salmon return each year)	25% of historical levels (75,000 salmon return each year)	60% of historical levels (180,000 salmon return each year)
50 years after dam removal	20% of historical levels (60,000 salmon return each year)	50% of historical levels (150,000 salmon return each year)	60% of historical levels (180,000 salmon return each year)
100 years after dam removal	40% of historical levels (120,000 salmon return each year)	50% of historical levels (150,000 salmon return each year)	60% of historical levels (180,000 salmon return each year)

**Table 4. Forests and wildlife recovery alternatives**

Time since dam removal	Forests and Wildlife Alternative 1 No further actions	Forests and Wildlife Alternative 2 Limited actions	Forests and Wildlife Alternative 3 Extensive actions
25 years after dam removal	0.5% recovered	8% recovered	18% recovered
50 years after dam removal	1% recovered	30% recovered	75% recovered
100 years after dam removal	18% recovered	90% recovered	100% recovered
200 years after dam removal	100% recovered	100% recovered	100% recovered

## Which alternatives do you think should be implemented and what will it cost?

Please complete the four steps in the table below.

- First, review all of the alternatives and their costs.
- Second, check the box of the salmon alternative you would like to see implemented.
- Third, check the box of the forests and wildlife alternative you would like to see implemented.
- Fourth, add the one-year costs from the alternatives you circled and fill in the sum your household would pay on the right side of the table.

	Alternative 1 No further actions	Alternative 2 Limited actions	Alternative 3 Extensive actions	
<b>Salmon restoration</b>				
25 years after dam removal	3% of historical levels (9,000 salmon return each year)	25% of historical levels (75,000 salmon return each year)	60% of historical levels (180,000 salmon return each year)	
50 years after dam removal	20% of historical levels (60,000 salmon return each year)	50% of historical levels (150,000 salmon return each year)	60% of historical levels (180,000 salmon return each year)	
100 years after dam removal	40% of historical levels (120,000 salmon return each year)	50% of historical levels (150,000 salmon return each year)	60% of historical levels (180,000 salmon return each year)	
Surcharge on your electric bill in 2013	<b>\$0 total (\$0 per month)</b>	<b>\$48 total (\$4 per month)</b>	<b>\$84 total (\$7 per month)</b>	
Please check the alternative that you <i>personally</i> think is the best of the three				← Your total one-year cost for salmon restoration
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	\$ _____
	Alternative 1 No further actions	Alternative 2 Limited actions	Alternative 3 Extensive actions	
<b>Forests and wildlife restoration</b>				
25 years after dam removal	0.5% recovered	8% recovered	18% recovered	
50 years after dam removal	1% recovered	30% recovered	75% restored	
100 years after dam removal	18% recovered	90% recovered	100% recovered	
200 years after dam removal	100% recovered	100% recovered	100% recovered	
Surcharge on your electric bill in 2013	<b>\$0 total (\$0 per month)</b>	<b>\$36 total (\$3 per month)</b>	<b>\$60 total (\$5 per month)</b>	
Please check the alternative that you <i>personally</i> think is the best of the three				← Your total one-year cost for forests and wildlife restoration
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	\$ _____
Your total one-year cost (salmon cost plus forests and wildlife cost)				→ \$ _____

11. You just chose a combination of alternatives for salmon and forest restoration. In the space provided below, please tell us your reasons for choosing that combination.

12. When you chose which combination of restoration actions you would like to see implemented, did you think that public officials would use the results of this survey when they decide what to do? **Please check one box.**

I thought that public officials would definitely use the results of this survey.

I thought that public officials would probably use the results of this survey.

I thought that public officials would probably not use the results of this survey.

I thought that public officials would definitely not use the results of this survey.

13. When you chose which combination of restoration actions you would like to see implemented, how certain were you that you would actually have to help pay for restoration as part of your 2013 electricity bills? **Please check one box.**

I thought I would definitely have to help pay for restoration.

I thought I would probably have to help pay for restoration.

I thought I would probably not have to help pay for restoration.

I thought I would definitely not have to help pay for restoration.

## Which option do you think should be implemented and what will it cost?

To tell us, please review the three options and their costs in the table below and tell us which option you *personally* think is the best.

	<b>OPTION 1 NO FURTHER ACTIONS</b>	<b>OPTION 2 LIMITED ACTIONS</b>	<b>OPTION 3 EXTENSIVE ACTIONS</b>
<b>Salmon Restoration</b>			
<b>25 years after dam removal</b>	3% of historical levels (9,000 salmon return each year)	25% of historical levels (75,000 salmon return each year)	60% of historical levels (180,000 salmon return each year)
<b>50 years after dam removal</b>	20% of historical levels (60,000 salmon return each year)	50% of historical levels (150,000 salmon return each year)	60% of historical levels (180,000 salmon return each year)
<b>100 years after dam removal</b>	40% of historical levels (120,000 salmon return each year)	50% of historical levels (150,000 salmon return each year)	60% of historical levels (180,000 salmon return each year)
<b>Forests and Wildlife Restoration</b>			
<b>25 years after dam removal</b>	0.5% recovered	8% recovered	18% recovered
<b>50 years after dam removal</b>	1% recovered	30% recovered	75% recovered
<b>100 years after dam removal</b>	18% recovered	90% recovered	100% recovered
<b>200 years after dam removal</b>	100% recovered	100% recovered	100% recovered
<b>Surcharge on your electric bill in 2013</b>	<b>\$0 total (\$0 per month)</b>	<b>\$84 total (\$7 per month)</b>	<b>\$144 total (\$12 per month)</b>
<b>Please check the option that you <i>personally</i> think is the best of the three</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

On the back of this page, please tell us why you chose the combination you did.

May 31, 2012, we received a request from Archer Daniels Midland Company, Cargill, Incorporated, and Tate & Lyle Ingredients Americas LLC, domestic producers of the subject merchandise and petitioners in the investigation (collectively, the Petitioners), to conduct an administrative review of Yixing-Union Biochemical Co., Ltd. (Yixing-Union).<sup>2</sup>

On July 10, 2012, the Department published the notice of initiation of the administrative review for the review period January 1, 2011, through December 31, 2011 (POR), which covered Yixing-Union and the RZBC Companies.<sup>3</sup> On July 13, 2012, Yixing-Union submitted a letter certifying that it had no sales, shipments, or exports of subject merchandise to the United States during the POR. On August 8, 2012, the Department published a notice of intent to rescind Yixing-Union's administrative review and invited interested parties to comment.<sup>4</sup> We received no comments, and have determined that the review of Yixing-Union should be rescinded.

#### Scope of the Order

The scope of the order includes all grades and granulation sizes of citric acid, sodium citrate, and potassium citrate in their unblended forms, whether dry or in solution, and regardless of packaging type. The scope also includes blends of citric acid, sodium citrate, and potassium citrate; as well as blends with other ingredients, such as sugar, where the unblended form(s) of citric acid, sodium citrate, and potassium citrate constitute 40 percent or more, by weight, of the blend. The scope of the order also includes all forms of crude calcium citrate,

including dicalcium citrate monohydrate, and tricalcium citrate tetrahydrate, which are intermediate products in the production of citric acid, sodium citrate, and potassium citrate. The scope of the order does not include calcium citrate that satisfies the standards set forth in the United States Pharmacopeia and has been mixed with a functional excipient, such as dextrose or starch, where the excipient constitutes at least 2 percent, by weight, of the product. The scope of the order includes the hydrous and anhydrous forms of citric acid, the dihydrate and anhydrous forms of sodium citrate, otherwise known as citric acid sodium salt, and the monohydrate and monopotassium forms of potassium citrate. Sodium citrate also includes both trisodium citrate and monosodium citrate, which are also known as citric acid trisodium salt and citric acid monosodium salt, respectively. Citric acid and sodium citrate are classifiable under 2918.14.0000 and 2918.15.1000 of the Harmonized Tariff Schedule of the United States (HTSUS), respectively. Potassium citrate and crude calcium citrate are classifiable under 2918.15.5000 and 3824.90.9290 of the HTSUS, respectively. Blends that include citric acid, sodium citrate, and potassium citrate are classifiable under 3824.90.9290 of the HTSUS. Although the HTSUS subheadings are provided for convenience and customs purposes, the written description of the merchandise is dispositive.

#### Partial Rescission of Review

Pursuant to 19 CFR 351.213(d)(3), the Department may rescind an administrative review, with respect to a particular exporter or producer, if the Secretary concludes that, during the period covered by the review, there were no entries, exports, or sales of the subject merchandise to the United States by that producer. Yixing-Union submitted a letter on July 13, 2012, certifying that it did not have sales, shipments, or exports of subject merchandise to the United States during the POR. We received no comments from any interested party on Yixing-Union's no-shipment claim.

We conducted an internal customs data query for the POR and issued a "no shipments inquiry" message to U.S. Customs and Border Protection (CBP), which posted the message on July 17, 2012.<sup>5</sup> The results of the customs data

query indicated that there were no entries of subject merchandise to the United States by Yixing-Union during the POR. We did not receive any information from CBP contrary to Yixing-Union's claim of no sales, shipments, or exports of subject merchandise to the United States during the POR.

Based on our analysis of the shipment data, we determine that Yixing-Union had no entries of subject merchandise to the United States during the POR. Therefore, in accordance with 19 CFR 351.213(d)(3), and consistent with our practice,<sup>6</sup> we determine to rescind the review for Yixing-Union. We will continue this administrative review with respect to the RZBC Companies.

We are issuing this notice in accordance with sections 751(a)(1) and 777(i)(1) of the Tariff Act of 1930, as amended, and 19 CFR 351.213(d)(4) of the Department's regulations.

Dated: August 31, 2012.

**Christian Marsh,**

*Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations.*

[FR Doc. 2012-22474 Filed 9-11-12; 8:45 am]

**BILLING CODE 3510-DS-P**

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

#### Proposed Information Collection; Comment Request; Elwha River Dam Removal and Floodplain Restoration Ecosystem Service Valuation Pilot Project

**AGENCY:** National Oceanic and Atmospheric Administration (NOAA).  
**ACTION:** Notice.

**SUMMARY:** The Department of Commerce, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995.

**DATES:** Written comments must be submitted on or before November 13, 2012.

**ADDRESSES:** Direct all written comments to Jennifer Jessup, Departmental Paperwork Clearance Officer, Department of Commerce, Room 6616,

Customs message number 2199302, available at <http://addcvd.cbp.gov> or IA ACCESS.

<sup>6</sup> See, e.g., *Welded Carbon Steel Standard Pipe and Tube from Turkey: Notice of Rescission of Countervailing Duty Administrative Review, in Part*, 74 FR 47921 (September 18, 2009).

*To Request Administrative Review*, 77 FR 25679 (May 1, 2012).

<sup>2</sup> Petitioners also requested a review of RZBC Co., Ltd., RZBC Imp. & Exp. Co., Ltd., and RZBC (Juxian) Co., Ltd. (collectively, the RZBC Companies). See Letter from petitioners to the Department regarding "Request for Administrative Review," dated May 31, 2012. This public document and all other public documents and public versions generated in the course of this review by the Department and interested parties are on file electronically via Import Administration's Antidumping and Countervailing Duty Centralized Electronic Service System (IA ACCESS). IA ACCESS is available to registered users at <http://iaaccess.trade.gov> and in the Central Records Unit (CRU), room 7046 of the main Department of Commerce building. In addition, a complete version of this notice can be accessed directly on the Internet at <http://www.trade.gov/ia/>.

<sup>3</sup> See *Initiation of Antidumping and Countervailing Duty Administrative Reviews and Request for Revocation in Part*, 77 FR 40565, 40573 (July 10, 2012).

<sup>4</sup> See *Citric Acid and Certain Citrate Salts from the People's Republic of China: Intent to Rescind Countervailing Duty Administrative Review, in Part*, 77 FR 47370 (August 8, 2012).

<sup>5</sup> See Memorandum to the File from Kristen Johnson, Trade Analyst, AD/CVD Operations, Office 3, regarding "Release of Results of Query Performed on Customs and Border Protection Trade Data Base," (July 10, 2012) and

14th and Constitution Avenue NW., Washington, DC 20230 (or via the Internet at [Jfessup@doc.gov](mailto:Jfessup@doc.gov)).

**FOR FURTHER INFORMATION CONTACT:** Requests for additional information or copies of the information collection instrument and instructions should be directed to Dr. Anthony Dvarskas (732) 872-3090 or [Anthony.Dvarskas@noaa.gov](mailto:Anthony.Dvarskas@noaa.gov).

**SUPPLEMENTARY INFORMATION:**

**I. Abstract**

This request is for a new information collection.

National Ocean Services' Office of Response and Restoration, Assessment and Restoration Division and the National Marine Fisheries Services' Office of Habitat Conservation are requesting approval for a new information collection to conduct a pilot study to test the Elwha River Dam Removal and Floodplain Restoration Ecosystem Service Valuation Survey it has developed.

The removal of two hydroelectric dams on the Elwha River is one of the largest dam-removal projects in U.S. history. This project, along with restoration actions planned for the floodplain and drained reservoir basins, will have numerous impacts to people of the surrounding region. Impacted groups include recreators who engage in river activities such as fishing and rafting, reservoir users, and members of Native American tribes for whom the river has cultural, environmental, and economic significance. The dam removal and restoration actions could also have value to people throughout the Pacific Northwest, regardless of whether they visit the Elwha River or Olympic Peninsula. Such nonuse value may be significant because the dam removal and habitat restoration will restore the river to more natural conditions and will restore populations of salmon and other fish species as well as forests and wildlife. This project will also address an important gap in research on indirect and nonuse values provided by habitat restoration.

A study of the value of ecological restoration is of particular interest in this location because significant baseline ecological data are available to allow a comparison of ecological values with some of the more obvious use losses associated with the reservoir. The ability to link results of the study to precise measures of ecosystem changes will be useful in applying the study to future restoration sites, enabling NOAA to evaluate a broader range of ecosystem services provided by future restoration actions.

NOAA has developed a nonmarket valuation survey to administer to people living in Washington and Oregon. This survey has been tested with small focus groups and one-on-one interviews to ensure the survey questions and choice scenarios presented are accurate, easily understood, and the least burdensome. The next step in the survey development process is to administer a pilot study of the draft survey instrument to test several, complex methodological approaches for presenting information to respondents. In particular, NOAA plans to test several variations of the choice table.

**II. Method of Collection**

The proposed pilot survey would be administered in two waves. In the first wave, Knowledge Networks (KN) would administer the survey online, to its existing KnowledgePanel™ in Washington and Oregon, with a goal of achieving 1,050 completed surveys. Using the KnowledgePanel™ will allow NOAA to test different ways of presenting information to respondents. Because NOAA ultimately plans to administer the final survey instrument using a mail mode, the second wave would be administered by mail with a goal of achieving 250 completed surveys. The information gained from the testing in KnowledgePanel™ will be used to select and administer one of the approaches for presenting the information in a mail mode.

**III. Data**

*OMB Control Number:* None.

*Form Number:* None.

*Type of Review:* Regular submission (request for a new information collection).

*Affected Public:* Individuals or households.

*Estimated Number of Respondents:* 1,300.

*Estimated Time per Response:* 30 minutes.

*Estimated Total Annual Burden Hours:* 650.

*Estimated Total Annual Cost to Public:* \$0 in recordkeeping/reporting costs.

**IV. Request for Comments**

Comments are invited on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden (including hours and cost) of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be

collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology.

Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval of this information collection; they also will become a matter of public record.

Dated: September 6, 2012.

**Gwellnar Banks,**

*Management Analyst, Office of the Chief Information Officer.*

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**BILLING CODE 3510-JE-P**

**DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration**

**Availability of Seats for the Fagatele Bay National Marine Sanctuary Advisory Council**

**AGENCY:** Office of National Marine Sanctuaries (ONMS), National Ocean Service (NOS), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce (DOC).

**ACTION:** Notice and request for applications.

**SUMMARY:** The ONMS is seeking applications for the following vacant seat on the Fagatele Bay National Marine Sanctuary Advisory Council: Community-at-Large: Swains Island. Applicants are chosen based upon their particular expertise and experience in relation to the seat for which they are applying; community and professional affiliations; philosophy regarding the protection and management of marine resources; and possibly the length of residence in the area affected by the sanctuary. Applicants who are chosen as members should expect to serve 3-year terms, pursuant to the council's charter.

**DATES:** Applications are due by Friday, October 26.

**ADDRESSES:** Application kits may be obtained from Emily Gaskin in the Tauese P.F. Sunia Ocean Center in Utulei, American Samoa. Completed applications should be submitted to the same address.

**FOR FURTHER INFORMATION CONTACT:** Emily Gaskin, Tauese P.F. Sunia Ocean Center in Utulei, American Samoa, American Samoa, 684-633-5500 ext. 226, [emily.gaskin@noaa.gov](mailto:emily.gaskin@noaa.gov).