

**SUPPORTING STATEMENT**  
**Washington Steelhead Anglers Survey**  
**OMB CONTROL NO. 0648-xxxx**

**A. JUSTIFICATION**

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

The Northwest Fisheries Science Center (NWFSC) is undertaking an economics research project to assess the preferences and behavior of recreational steelhead anglers in Washington State. Specifically, the research will assess angler responses to catch rates, season timing, gear restrictions, and hatchery releases, and how these actions affect the value of recreational steelhead fishing. Managing steelhead in Washington State requires consideration of federal statutes including the [Endangered Species Act](#) and the [Mitchell Act](#). The Washington Steelhead Fishing Survey (WSFS) will provide important data to help managers balance objectives for steelhead conservation under the Endangered Species Act and objectives for fishery management under the Mitchell Act and related federal statutes.

The WSFS will collect data needed to (1) evaluate angler preferences for steelhead fishing opportunities; (2) assess the economic value of steelhead fishing opportunities in Washington State; and (3) assess the change in these values associated with management policies related to balancing conservation and recreational fishery objectives. In particular, policies related to recreational fishery regulations, hatchery management, and the recovery of ESA-listed steelhead and conservation of other wild steelhead stocks.

The data necessary to estimate such models has not yet been collected to our knowledge despite the inherent tradeoffs in balancing management objectives across a set of heterogeneous river systems. The estimated preference parameters on steelhead angling will serve as inputs into a management model for identifying cost-effective strategies for balancing conservation, recreational, and cultural objectives.

All of the protocols that will be used in the final survey will be tested prior to the full survey administration. If the survey needs revision based on this pretest, we will submit the revised instruments as part of a non-substantive change request.

**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 all applicable Information Quality Guidelines.**

The information collected will be used to estimate an economic model of angler behavior, depicting the trade-offs anglers are willing to make among fishing trips with different attributes (catch rates, gear restrictions, season length) and not going fishing. The estimates from this behavioral model will, in turn, be used to develop a model that can simulate the welfare effects of policy alternatives and identify cost-effective management solutions. We anticipate that the model will be used at least biannually to assess potential impacts of management alternatives on

angler welfare and to identify socially beneficial steelhead management policies. The individual sections of the final survey are discussed below in more detail.

#### Section A: Your Washington State Steelhead Fishing Activity

The first part of Section A asks respondents how many times they fished for steelhead in Washington State in the past 12 months. It is intended to screen out respondents who have not fished for steelhead in Washington State within the past 12 months. If a respondent has done such fishing, a second question in this section asks respondents how many of their trips were taken for winter steelhead to gauge how their angling effort is distributed across winter and summer seasons. If the respondent has not done such fishing, they skip ahead to Section E.

#### Section B: Your Favorite Washington State Steelhead Rivers

Section B asks respondents to select from a list their favorite three Washington steelhead rivers. Section B then asks about the respondent's trips and catches at these rivers and gathers information on their assessment of fishing conditions at each river. The information collected in Section B is used to help inform our evaluation of what drives trip-taking behavior in Section D.

#### Section C: Your Angler Profile

Section C gathers information on the respondent's typical trips, including preferred fishing gear, use of boat, length of trips and number of people that go on trips with the respondent. This section also asks respondents to report their typical expenditures within categories including fishing supplies, access fees, and lodging.

#### Section D: Trips You Would Likely Take During a Season

Section D gathers information on how a respondent is likely to react to different fishing opportunities, as described by catch rates of wild and hatchery steelhead, season-length regulations, and gear restrictions.

#### Section E: Your Attitudes about Fishery Management and Conservation

Section E asks respondents about their attitudes and perceptions regarding management of steelhead conservation and recovery. Specifically, the section asks respondents' their perceptions about the threats facing wild steelhead populations.

#### Section F: Information about you and your household

Section E asks a series of demographic and other questions the answers to which can be used to improve the estimation of the recreational fishing behavioral model. These questions will gather information on age, gender, education, household size, household income, and whether the respondent takes time off work to take steelhead fishing trips.

NWFSC 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. Although the information collected is not expected to be disseminated directly to the public, results may be used in scientific, management, technical or general informational publications. 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](#).

Prior to its public release, the economic model will be reviewed internally by experts at NWFSC and peer reviewed as part of the publication process in academic journals.

**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.**

The data collection does not involve the use of automated, mechanical or other technological techniques with the exception that the survey instrument will be administered online to respondents who prefer that medium to a paper form.

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

We reviewed the existing literature on recreational activities in the region and could not find any studies that imply our effort is duplicative of any work conducted previously. We also conferred with state officials in Washington with responsibilities for managing recreational steelhead fishing and they could not identify any existing or planned duplicative efforts.

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

The collection of information does not involve 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.**

As noted before, the survey will collect information needed to develop economic models of recreational steelhead fishing in Washington. This research will provide scientific support for the Washington Department of Fish and Wildlife as well as resource managers at NOAA's West Coast Region. Not conducting the information collection will undercut the ability to account for the economic value of recreational steelhead fishing, thus limiting the ability of agencies to craft cost-effective conservation and management policies.

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

This is not applicable.

**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 published on January 11, 2018 (83 FR 40676) solicited public comments. We received a single comment that generally disapproved of spending public funds for the study of recreational fishing and hunting. We have also consulted with personnel at the Washington Department of Fish and Wildlife regarding the data we are collecting.

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

Each survey participation request mailed to potential respondents will contain a \$2 cash gift. Research has demonstrated that including small financial incentives of one to five dollars with a survey request can significantly improve the response rate (Dillman, D.A., J.D. Smyth, and L.M. Christian. 2009. Internet, Mail, and Mixed-Mode Surveys: The Tailor Design Method. Wiley, New York.).

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

To support the anonymity of this research, no participant names will be included on the survey document. Participant names will be tracked in a separate database to code participants for protection during data analysis, confirm receipt of a survey from each individual, and avoid of duplication of responses.

Documents containing names will be kept in a locked container such as a lock box in the field or a locked file cabinet in the office setting. All electronic versions will be kept under password protected systems, accessible only by study researchers.

When writing final reports and publishing the findings of this research, tabulations of individual responses will occur at a high enough level of aggregation so that no single individual may be identified. In addition to the confidentiality protection measures, survey participants are provided the option to skip questions of concern and stop their participation in the survey at any time with no consequence to themselves. Finally, in the event of a Freedom of Information Act (FOIA) request, we will protect the confidentiality to the extent possible under the Exemption 4 of the FOIA.

**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.**

The survey includes questions that gather demographic information, including information on income. This is considered sensitive information for some households. This information will be used as part of the statistical analysis of survey responses, as is common in estimating economic demand functions.

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

We estimate the annual burden of this data collection to be 444 hours, 2,776 responses and 1,652 unduplicated respondents. Potential survey participants respond to survey solicitation by completing a screening survey. There will be an estimated 1,652 screening surveys completed online. We estimate that 1,124 of the 1,652 respondents who complete the screening survey will go on to complete the full survey, including 472 completed surveys from steelhead anglers and 652 completed surveys from anglers who have not fished for steelhead in the past year.

Burden estimates were calculated by multiplying the estimated time to complete each contact by the number of estimated contacts of each type. Specifically, we estimate that it will require 25 minutes, 10 minutes, and 5 minutes to complete the survey for a steelhead angler, the survey for a non-steelhead angler, and the screening survey, respectively. We estimate 472 completed surveys from steelhead anglers (197 hours), 652 completed surveys from non-steelhead anglers (109 hours), and 1,652 completed screening surveys (138 hours).

We estimate a 32% response rate for the screener survey and a 22% response rate for the full survey. For more detail, see the response to B1.

The steps in the data collection follow a modified Dillman Method protocol (Dillman 2009), and are as follows. Overall, attempted contacts are first made through a letter by mail. Follow up requests are then made with telephone calls and reminder postcards. We are constructing our potential respondent list from the Washington Department of Fish and Wildlife angling license database, specifically from a list 2016-2017 license holders who indicated that they intended to fish for steelhead.

**Mail attempt for records with addresses:**

Each record will be examined to determine whether there is a mailing address. Records that have an address will be contacted by mail with a request to participate in the survey.

**Reminders to respond:**

License holders who do not go online to complete the screener after being mailed the participation request will be sent a postcard reminder to encourage their participation. For records that include email addresses, an email reminder will be sent first and then a postcard reminder sent several days later if they still have not gone online to take the survey. The mailed participation request will include a phone number for individuals to call if they prefer to be mailed a paper survey to return rather than taking the survey online.

Online screener:

Mailed survey invitations will include a link and access code for the online screener. The online screener will separate the sample into two groups: steelhead anglers and non-steelhead anglers. Steelhead anglers will be given the full web survey while non-steelhead anglers will only answer demographic and attitudinal questions.

Reminders for incomplete surveys:

A reminder postcard will be sent to respondents who complete the online screener but do not complete the survey. For records that include email addresses, an email reminder will be sent first and then a postcard reminder sent several days later if they still have not completed the survey.

These steps are outlined in Figure A1 of the Appendix.

Burden estimates were calculated by multiplying the estimated time to complete each contact by the number of estimated contacts of each type. Specifically, we estimate that it will require 25 minutes, 10 minutes, and 5 minutes to complete the survey for a steelhead angler, the survey for a non-steelhead angler, and the screening survey, respectively. We estimate 472 completed surveys from steelhead anglers (197 hours), 652 completed surveys from non-steelhead anglers (109 hours), and 1,652 completed screening surveys (138 hours). All estimates are annualized.

**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 are no costs excluding the value of the burden hours in Question 12. Mailed surveys will be accompanied by a postage-paid envelope.

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

The survey is being administered by an outside contractor. The costs to the federal government are limited to the cost of the contract, which is estimated to total \$55,000 in the 2018 fiscal year plus an estimated 60 hours each from two NOAA economists at the ZP3 pay band. Although the economists will be employed full time by the federal government with or without this project, these hours would be diverted to other valuable tasks in the absence of this data collection. We use hourly loaded wage rates to estimate these opportunity costs. Assuming annual salaries of \$100,000, and a 40% benefit load, these hours amount to \$5,571 annually for salary and benefits related to this data collection.

Therefore, the total estimated annual costs incurred by the federal government as a result of implementing this survey are \$60,571.

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

This is a new program.

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

The methodology and results from economic models be published in peer-reviewed scientific journals. Tabulations of responses will be aggregated in order to maintain sufficient confidentiality, as described in the answer to question 10, above.

**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.**

This is not applicable, as we are not seeking such an approval.

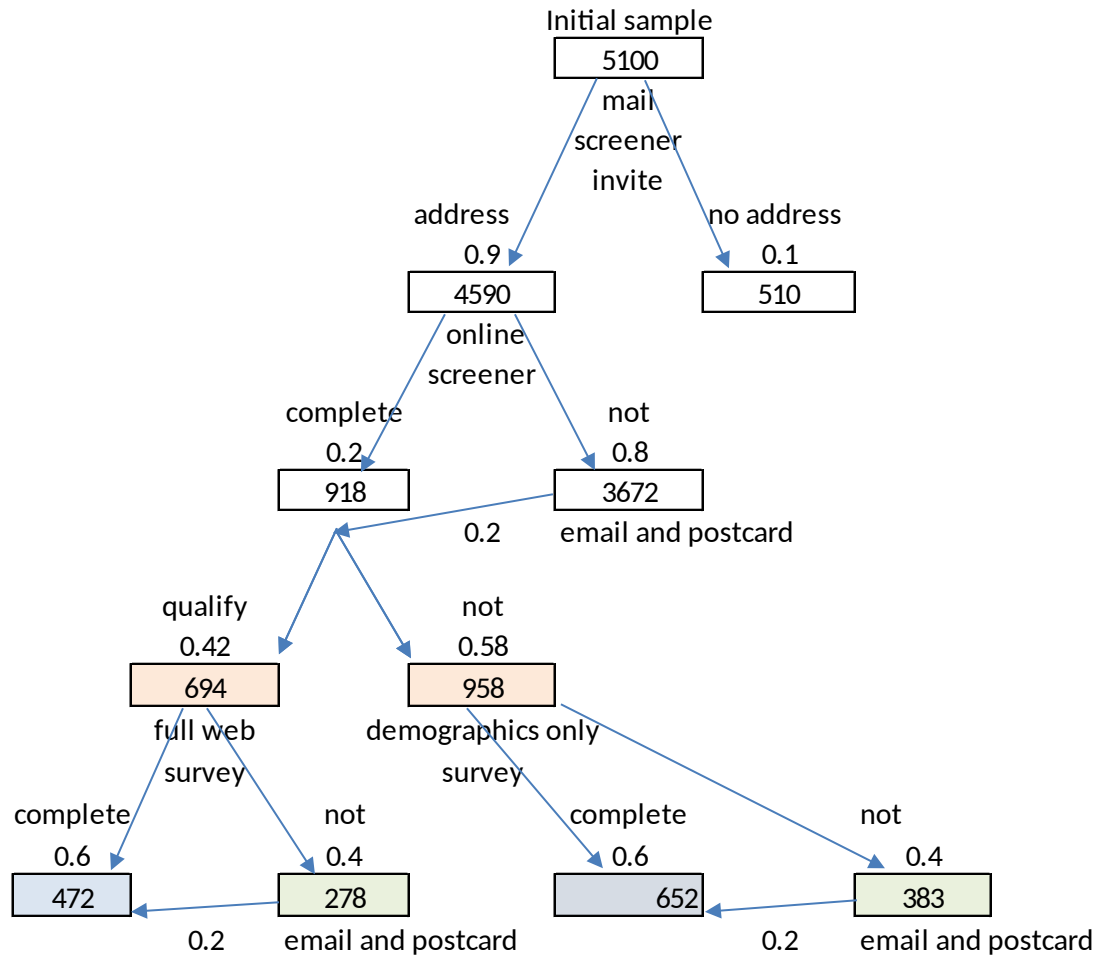
**18. Explain each exception to the certification statement.**

This is not applicable, as we are not seeking such an exception.

**APPENDIX:**

This appendix contains supporting details for the burden estimate contained in this Supporting Statement. In particular, flowcharts of the contacts are provided along with estimates of the factors that affect this calculation, such as the percentage of the population in the sample frame that have a valid mailing address.

**Figure A1.** Contact Flowchart for Survey



**Table A1.** Factors Contributing to Burden Estimate

<b>Factor</b>	<b>Estimate</b>
Address in licensing database	90%
Percent of individuals mailed screener invitation who complete the online screener without further contact	20%
Percent of individuals who don't complete survey initially that subsequently complete the online screener after receiving a reminder postcard and phone call	20%
Individuals taking the online screener who qualify for the full survey	42%
Individuals who qualify for the full survey that complete the full survey	60%
Percent of qualifying individuals who do not complete the full survey initially but subsequently complete the full survey after receiving a reminder postcard and phone call	20%
Individuals who do not qualify for the full survey but complete the demographics survey	60%
Percent of non-qualifying individuals who do not complete the demographics survey initially that subsequently complete the demographics survey after receiving a reminder postcard and phone call	20%
Minutes to complete, steelhead angler	25
Minutes to complete, non-steelhead angler	10
Minutes to complete screener	5