

**SUPPORTING STATEMENT  
WEST COAST GROUNDFINCH TRAWL ECONOMIC DATA COLLECTION  
OMB CONTROL NO. 0648-0618**

**A. JUSTIFICATION**

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

Individual fishing quotas for the West Coast groundfish trawl fishery, otherwise known as Trawl Rationalization, was implemented in January 2011 by the Pacific Fisheries Management Council (PFMC). The management system changed from a system of two-month trip limits by species, area restrictions, and gear restrictions to an Individual Fishing Quota (IFQ) management regime. In addition to the IFQ management regime, participants in the at-sea whiting program have formed cooperatives for allocating harvest quota for whiting.

The data collection program described in this document is designed to meet the requirements of the PFMC's call for mandatory data collection as part of the implementation of individual fishing quota (IFQ) management in the West Coast groundfish trawl fishery. This mandatory data collection program is needed to meet the monitoring requirements of Section 303A(c)(1)(G) of the [Magnuson-Stevens Act \(MSA\)](#). Requirements are codified in [50 CFR Part 660.114](#).

Participants in the West Coast groundfish trawl fishery, who must have a limited entry permit with a trawl endorsement, account for about 70% of groundfish landings (by revenue) on the West Coast of the United States (U.S.). The fishery includes an at-sea whiting component (vessels that harvest and process whiting at-sea), a shorebased whiting component (vessels that harvest whiting and deliver to shorebased processors), and a non-whiting groundfish component (all non-whiting groundfish is delivered by catcher vessels to first receivers or shorebased processors).

As mandated in the regulations, data are collected from "All owners, lessees, and charterers of a catcher vessel registered to a limited entry trawl endorsed permit at any time in 2011 and beyond", "All owners, lessees, and charterers of a mothership vessel registered to an MS permit at any time in 2011 and beyond", "All owners, lessees, and charterers of a catcher processor vessel registered to a C/P-endorsed limited entry trawl permit at any time in 2011 and beyond", "All owners of a first receiver site license in 2011 and beyond", and "All owners and lessees of a shorebased processor (as defined under "processor" at §660.11, for purposes of EDC) that received round or headed-and-gutted IFQ species groundfish or whiting from a first receiver in 2011 and beyond." To date, data have been collected for 2009-2013. The 2009-2010 data collection serves a baseline for comparison,

In its consideration of an IFQ management regime for the West Coast groundfish trawl fishery, the PFMC enumerated the following goals for the program:

- 1) Provide for a viable, profitable, and efficient groundfish fishery.
- 2) Increase operational flexibility.

- 3) Minimize adverse effects from an IFQ program on fishing communities and other fisheries to the extent practical.
- 4) Promote measurable economic and employment benefits through the seafood catching, processing, distribution elements, and support sectors of the industry.
- 5) Provide quality product for the consumer.
- 6) Increase safety in the fishery

These goals are an important consideration in the development of the economic data collection program, as the Magnuson-Stevens Act (MSA) includes provisions for monitoring the degree to which the goals have been met. Section 303A(c)(1)(G) states that any limited entry permit program (LAPP) shall:

include provisions for the regular monitoring and review by the Council and the Secretary of the operations of the program, including determining progress in meeting the goals of the program and this Act, and any necessary modification of the program to meet those goals, with a formal review 5 years after the implementation of the program and thereafter to coincide with scheduled Council review of the relevant fishery management plan (but no less frequent than once every 7 years).

In order to meet the monitoring requirements of the MSA, it is necessary to continue to have economic data on all catcher vessels, catcher processors, motherships, and first receivers/shoreside processors participating in the West Coast groundfish fishery. This includes (i) catcher vessels (delivering to shoreside processors and/or motherships), (ii) motherships, (iii) catcher-processors, and (iv) first receivers/shorebased processors. A survey form was developed for each of these four groups.

**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.**

*How Information Will Be Used?*

Information received from this survey will continue to be used to calculate economic performance measures and support the regional economic impact model developed by the Northwest Fisheries Science Center (Input-Output Pacific Coast, or IO-PAC). While the calculation of some economic performance measures involves the use of statistical inference to develop values that are representative of the desired population (as even with mandatory data collection, there may be some non-respondents) and the development of other economic performance measures requires the development of economic and econometric models. Examples of economic performance measures based on statistical inference of survey variables include calculation of expenditures for each input, calculation of total costs incurred when operating the vessel (which include not only expenditures for inputs but also other expenditures such as the purchase/leasing of permits and quota), calculation of total revenue earned through operation of the vessel, variable profit (total revenue minus variable costs), vessel operating characteristics (speed and fuel use), crew size, and crew compensation methods (what share of revenue is paid to the crew and which expenses are deducted from landings revenue before the

crew is paid). Performance measures that require the estimation of economic models include efficiency of operation and average cost curves for different length vessels (that provide the level of harvest output at which a specific length vessel minimizes its cost per pound of fish landed).

Many of these performance measures have been estimated using data from the two voluntary cost earnings surveys previously conducted with the limited entry trawl fleet of catcher vessels. Data from the first survey was used to analyze the expected effect of implementing a catch share program regarding the number of vessels, harvesting costs, economic rent, and profits. This analysis has been published in the *Journal of Marine Economics* and provides the economic analysis used in the Environmental Impact Statement being prepared as part of the catch share implementation process.<sup>1</sup>

Data from the voluntary cost earnings surveys of the limited entry trawl fleet has also provided expenditure data used in the Input-Output Model for Pacific Coast Fisheries (IO-PAC) developed by the Northwest Fishery Science Center (NWFSC). Cost earnings survey data provides data on vessel expenditures by cost category (captain, crew, fuel, etc.), which drives the estimates of how changes in landings affect regional economies and coastal economies. Estimates from IO-PAC are used in the PFMC's bi-annual groundfish specifications process, which sets allowable landings levels by groundfish species and gear type. Since the implementation of the EDC Program, the analysis of the groundfish specifications process has been expanded to calculate net benefits in addition to the generation of impact estimates. The data were also used for a tech-memo looking at productivity in catch share programs, and in another analysis for the PFMC analyzing the effects of observer and electronic monitoring costs on net benefits.

While data collected through voluntary surveys of the catcher vessels participating in the limited entry trawl fishery have allowed NWFSC economists to perform analysis used in fisheries management and published in peer reviewed journals, the scope of analysis has been constrained by not having data on catcher processors, motherships, or first receivers/shoreside processors. The mandatory surveys presented in this request will not only allow the type of analysis which has already been performed to be continued, but will allow expanded analysis due to the availability of data for the shore-based processing, the at-sea fleet, as well as the harvesting sector. Because the data collection program covers both pre and post catch share implementation, it will be possible to determine how catch share management has affected the size and distribution of economic benefits from the fishery.

#### *Who Will Use the Data?*

Information collected in this data collection will be used by economists at the NWFSC and their contractors. While some analysis performed by contractors will require that they have access to survey data for individual vessels or processing plants, all identifying information (such as vessel ID, owners name, vessel name, processing plant address, etc.) will be removed from the data before it is provided to contractors hired by the NWFSC. Individual vessel and processing plant data with the identifying variables removed will be distributed to contractors hired by the NWFSC when necessary to complete work required of NMFS. Summaries of the data will be

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<sup>1</sup> See Lian, C., R. Singh, and Q. Weninger, Fleet Restructuring, Rent Generation, and the Design of Individual Fishing Quota Programs: Empirical Evidence from the Pacific Coast Groundfish Fishery, *Marine Resource Economics*, Volume 24, Number 4, January 2010, pp. 329-359 for this analysis.

produced each year and made available to the general public. These summaries will contain aggregated data (with each variable provided to the public based on responses received from at least three distinct economic units).

#### *How Frequently Will the Information be Used?*

Both the economic performance measures and the IO-PAC regional economic model will be updated annually. The NWFSC economists prepare annual reports with summary statistics for cost categories, sources of revenue, quasi-rents, and the share of fishery economic benefits accruing to various economic agents operating within the fishery (vessel owners, captain, crew, processing plant owners, and processing plant employees). These reports are presented to the Pacific Fishery Management Council annually. Information on expenditures by catcher vessels, catcher processors, motherships, and first receivers/shoreside processors will also be incorporated into the NWFSC's IO-PAC regional economic model on an annual basis. The performance measures prepared on an annual basis will also be used to determine if the IFQ program is meeting the goals identified by the PFMC.

Economists at the National Marine Fisheries Service (NMFS) also expect to continue a research program examining the impact of catch share programs on fleet structure, production costs, employment, generation and distribution of economic rent, and regional economic impacts. This work will be done on an on-going basis, with analytical results updated as new data becomes available. Results from this project will be used in the PFMC management process and may be published in peer reviewed journals.

#### *For What Purposes Will Survey Information Be Used?*

Data will be collected to monitor the economic impact of implementing an IFQ management regime as well as to answer other economic questions which require knowledge of the costs, revenues, physical characteristics, and compensation methods used by catcher vessels, catcher processors, motherships, and first receivers/shoreside processors in the West Coast limited entry trawl groundfish fishery. Meeting the monitoring requirements enumerated in section 303A.(c) (1)(G) of the MSA will require NWFSC economists to determine the efficiency of operations, whether operations are exhibiting economies or diseconomies of scale, expenditures on inputs including labor and (for harvesting vessels) fuel, quasi-rents (the difference between revenue and variable costs), and economic impacts on fishing communities. Data collected under this collection will be used in developing the report on catch share management impacts, which is legally mandated after 5 years of catch share management by the MSA. Analysis based on this data will not only meet legal requirements, but will also provide information to guide the PFMC in making decisions regarding revisions to the structure of the catch share system used to manage the West Coast limited entry groundfish trawl fishery.

The National Oceanic and Atmospheric Administration (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.**

Survey participants will have the option to complete either the paper survey or a web form. Surveys will be mailed to the participants; enclosed in the survey packet will be information about how to submit their data through the web form.

The four EDCs forms (catcher vessels, motherships, catcher processors, and first receivers/shorebased processors) will be posted on the Web site. Summaries of survey results presenting cost, revenue, physical characteristics, and input compensation methods will also be posted annually on the NWFSC Web site once the data are available: [www.nwfsc.noaa.gov/edc](http://www.nwfsc.noaa.gov/edc).

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

To the best of our knowledge, based on extensive interactions with the survey population and fishery managers regarding this data collection, this is the only source for these data. Extensive review of the forms with owners of catcher vessels, catcher-processors, motherships, and first receivers/shorebased processors has not revealed any questions on the forms which could be answered through the use of existing data sources.

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

Based on available information, the NMFS believes that all of the catcher vessels in the survey population qualify as small businesses. Existing (non-survey) data sources do not provide information on all potential revenue sources for catcher vessels participating in the West Coast limited entry trawl fishery (in particular, NWFSC staff do not have access to revenue data from Alaska fisheries). However, survey responses to two previous voluntary surveys of catcher vessels delivering to shoreside processors indicate that all of these vessels are small businesses. Revenue data is not available for all operations (West Coast and Alaska) of catcher-processors and motherships. Similarly, revenue data is not currently available for individual shoreside processing plants.

Two methods have been used to minimize survey burden on all members of the survey population, including small businesses. First, survey design has sought to avoid duplication of data collection (discussed in the response to question 4). Second, NMFS economists have met with industry participants to discuss all four forms. These discussions have focused on making questions easily understandable and consistent with the record keeping practices of survey respondents. These meetings with industry participants have resulted in numerous improvements in survey content and clarity.

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

Failure to conduct this survey would limit NMFS economists to using currently available data in order to monitor the impact of the catch share management. While it would still be possible to monitor changes in revenue earned by catcher vessels, there would be no information available on production costs, the processing sector, motherships, or catcher processors. No evaluation of the economic benefits, distributional impacts, or efficiency effects of catch share management could be made. It would not be possible to evaluate if catch share management was achieving many of the goals identified by the PFMC. As a result, MSA monitoring requirements as stated in section 303(c)(1)(G) could not be met.

In addition, NMFS economists would not be able to produce analysis evaluating the need for modifications to catch share program design and regulation. For example, evaluating the potential need to revise caps on quota share or quota pound accumulation requires knowledge of how much fish vessels of different sizes (lengths) must harvest in order to minimize cost per pound of fish harvested. In order to determine the level of catch at which a vessel minimizes cost per pound, it is necessary to have the cost data collected by this survey. Data from this collection are also necessary to evaluate the distributional consequences of catch share management, and the effects on regional economies. These are issues that fishery managers may wish to address by adjusting the catch share program.

Conducting data collection less frequently would slow the delivery of results from the economic monitoring process. Even with annual data collection, the evaluation results of regulatory changes made at the beginning of 2011 will not be available until the end of 2012. Collection of data for 2011 will not occur until mid-2012 (discussions with industry participants emphasized the importance of collecting economic data after industry participants have prepared data for tax filings), and the data verification and matching (with other data sources which provide data used in conjunction with the cost earnings data collected by this survey) process will take additional time. As a result, the economic impact of a regulatory change that takes effect at the beginning of 2011 is not known until the end of 2012 even with annual data collection. If economic analysis of the cost earnings data indicates unanticipated consequences of the regulatory change, additional time is needed in the PFMC process to discuss and recommend regulatory changes. The consequence of collecting cost earnings data less frequently than the annual basis proposed in this filing is to allow unanticipated consequences of regulatory changes to persist for needlessly extended periods of time.

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

This information collection is consistent with OMB guidelines.

**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 October 21, 2014 (79 FR 62940) solicited public comment. No comments were received.

As stated in Question 5, NMFS economists met with industry participants to discuss all four forms prior to the implementation of the Program. Since then, NMFS economists have continued to work with industry participants on the phone, in-person, and at Council meetings.

Changes to the EDC forms often result from communication with participants regarding the types of information collected and how it is collected. Other changes are the result of fishery managers and stakeholders who ask for specific analyses and types of information.

EDC staff work extensively with participants during each data collection year. It is common for participants to contact the EDC program (usually by telephone) to ask about questions that arise while filling out the form, or for more information about the purpose of the data collection. During the initial years of the program, there was a large volume of communications with participants. The frequency of phone calls has decreased over time as the participants have learned how to better complete the forms, and the forms have improved, both in terms of the clarity of instructions and the questions themselves.

Starting with the EDC data collection in 2014:

One example of recent feedback from participants is on the structure of the questions on the catcher vessel form about capitalized expenditures and expenses on fishing gear and on-board equipment. Although we provide definitions and examples of fishing gear and on-board equipment, we heard from many participants that either they did not know the difference or that they do not track those two outlays separately. To respond to that issue, we provided a check box that allows them to record all outlays on fishing gear and on-board equipment on one line rather than trying to split it into two lines.

We also found that there was a data quality issue with the capitalized expenditures and expenses. A common occurrence was to see the same value recorded in multiple places, arising suspicion that there might be double counting. In each of those instances, we would contact the participant for clarification. Participants either did not understand the difference between capitalized expenditures and expenses, or they were confused by the question. We therefore provided additional instructions and restructured the question to make it more clear how the two are related.

Another change was a result of communication with the general public. We came to understand that people are not just interested in the number of jobs available in the industry, but also the

number of people who are employed by the industry. We therefore added a new question to each of the forms to collect that information. We designed the question by speaking to individual participants over the phone.

These changes were approved in the March 2014 change request.

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

No payments or gifts will be provided to survey respondents.

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

Responses to this information request are confidential under 402(b) of the Magnuson-Stevens Act (16 U.S.C. 1801, et seq.). They are also confidential under [NOAA Administrative Order 216-100](#), which sets forth procedures to protect the confidentiality of fishery statistics.

The NMFS will not publish any numbers based on fewer than three survey responses in papers, reports, presentations, or other public documents. Nor will a summary statistic be reported if one observation makes up more than 90% of the total. Only NWFSC employees will have access to the survey data with information that can be used to identify individual respondents (vessel ID number, owner name, owner address, etc.). Consultants hired by the NMFS may have access to individual observations in the survey data, but only with all variables removed from the data set that identify the respondent (such as vessel Coast Guard ID, vessel name, vessel owner's name, vessel owner's contact information, processing plant address). In the case of a Freedom of Information Act (FOIA) request for the data, the NMFS will seek to protect the data from release through Exemption 4 by noting the data is confidential and highly sensitive business data.

**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.**

Not Applicable.

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

The survey population for 2014 data (collected in 2015) consists of 146 catcher vessels, 9 catcher processors, 6 motherships, and 46 first receivers/shoreside processors. The 161 catcher vessels, catcher processors and motherships will each need 8 hours to complete the EDC vessel forms, for a total of 1,288 hours and 20 hours is estimated for the 46 first receiver and shorebased processor form, for a total of 920 hours. As a result, one year of data collection will require a total of **2,208 hours** to complete the forms each year.

The burden hours listed on the first receiver form was increased from 8 hours to 20 hours, beginning with the 2013 EDC forms. This was not a result of an increase in the amount of work



required, but rather an adjustment to our estimate based on feedback from participants. This change was approved in March 2014.

**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).**

The only costs not covered in Question 12 are those for making copies of EDC documents (survey respondents are requested to retain a copy of the completed EDC form) and mailing the surveys. The annual cost associated with these activities is assumed to \$20 per respondent, assuming that the form is sent via certified mail. Total annual costs for all respondents will be \$4,140 (207 x \$20).

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

The NWFSC employs one FTE and two contractors to run the EDC Program. In addition, there is an outside contractor who mains the web forms and a team of in-house programmers and a database administrator. There are also costs for printing and mailing related to the survey. The total annual costs incurred by the federal government as a result of implementing this survey are thus \$230,000.

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

**Adjustment:**

The only change to the data collection since the last application is the number of participants. There are 45 fewer respondents (34 vessels and 11 first receiver/shorebased processors) than for the previous submission, so there is a reduction of 45 responses and 492 hours. This results in further decrease in recordkeeping/reporting costs, of \$20 x 45 or \$900.

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

NMFS continues to require submission of the EDC by September 1 of each year, as dictated by the regulations. NMFS expects to have a public report with available by the following August 1. This report will summarize information collected on costs by category, earnings by category, vessel and plant physical characteristics, and compensation to labor inputs (crew on vessels and line workers in processing plants). All reported values will be based on responses from at least three different economic entities so as to preserve confidentiality. Additionally, no summary statistic will be reported if one observation makes up more than 90% of the total.

**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.**

Not Applicable.

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

There are no exceptions.