

Measurement Protocol: Number of Recreational Fishing Jobs Supported by the Project

Project: GEMS
<http://bit.ly/NI-GEMS>

If you are encountering these protocols for the first time, please read:

- The GEMS protocols can help you develop a monitoring plan for a restoration project. They were developed based on existing published monitoring methods, but should not be considered prescriptive or the only appropriate way to monitor.
 - Each protocol is written as if you are monitoring a single outcome, but it is very possible you will be measuring multiple outcomes and may be able to use the same or similar methods to do so. Think about ways to be strategic and efficient when combining methods from different protocols. For example, are there ways to ask questions about multiple outcomes using a single survey instrument? Or is there a way to host a workshop that asks community members about barriers to accessing multiple types of outcomes?
 - Please be aware that the “who” methods—aimed at documenting who will be affected by social and economic changes caused by a restoration project—are quite similar across protocols. Where possible and sensible, you should consolidate community engagement methods that assess stakeholder perceptions of project outcomes to avoid stakeholder fatigue.
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Background

This document provides an overview of how to estimate the total number of recreational fishing jobs resulting from recreational fishing expenditures associated with a restoration project.

We define recreational fishing jobs as paid full-time or part-time positions that support recreational fishery operations. These positions include for hire fishing guides, private boat rentals, shore-based fishing support, and the sale and maintenance of durable goods such as rods, boats, and vehicles.

The “how much” methods estimate how much recreational fishing jobs associated with project site change with the installation of the project. The “who” methods help to document who is and who is not employed in these jobs.

The tables below list when methods would benefit from the expertise of social scientists trained in survey design and implementation, statistics, and economics. These experts should have experience with [human subject research](#), following best practices and, if relevant, conducting research in a way that is accountable to their respective institution’s oversight body, often called an [Institutional Review Board](#). If you do not have such expertise in your project or program, many university programs and consulting firms should be able to assist.

Relevant Coastal Restoration Approaches

Habitat Restoration – Oyster Reef, Salt Marsh, Seagrass, Mangrove restoration

Recreational Enhancement – Boat Ramps and Fishing Piers installation

Oyster Reef Specific – Subtidal, 3-Dimensional projects and protection or enhancement of existing oyster reef

“How much” methods:

Overview. These methods help the project answer: How many recreational fishing jobs can be attributed to project installation?

The method described below does not recommend a direct count of jobs, instead it outputs a jobs estimate based on recreational fishing expenditures associated with the site. This approach is used because 1) it would be difficult/ impractical to survey every person in the project area whose job is affected by recreational fishing expenditures at the site, and 2) even if that data could be collected, it is extremely difficult to determine whose job is partially or completely attributable to the expenditures associated with the project site. This method cannot estimate the economic impact or contribution of the site to local economies or easily assess whether recreational activity occurring at the project site would have taken place elsewhere if the project did not exist.

This method requires that you first estimate recreational fishing expenditures associated with the site. Refer to the [Recreational Fishing Expenditures Protocol](#) documents for more information.

“How much” method:

Method (click on method title to see more detail)	Method Outcome	Method Description	Human Subject Research Expertise Needed*	Effort Level
Multiply recreational fishing expenditures by a jobs multiplier	Estimate of recreational fishing jobs based on recreational fishing expenditures.	Multiply your recreational fishing expenditures estimate by a multiplier calculated from recreational fishing jobs and expenditures data from the most relevant annual NMFS FEUS report .	No	Low

*Refer to the [NIH Definition of Human Subjects Research](#) for more information

“How Much” Metric Summary:

Social or economic outcome this metric is linked to:	Economic Activity
“How much” metric tier:	<input type="checkbox"/> 1 (easier) or <input checked="" type="checkbox"/> 2 (harder)
“How much” measurement interval:	Annual
Use this protocol if:	<ul style="list-style-type: none"> The project will create jobs in the recreational fishing industry. You have completed the recreational fishing expenditures “how much” methods

“Who” methods:

Overview. These methods help the project answer: Who has access to and is affected by changes in the distribution of recreational fishing jobs as they relate to a coastal restoration project, and are they representative of the employable population?

These methods can help restoration practitioners assess equity in recreational fishing job opportunities associated with their project. These methods will help identify a) vulnerable groups and historically underrepresented stakeholders in the project service area;¹ b) the accessibility and distribution of recreational fishing jobs to communities in the project service area; and c) whether groups may be disproportionately accessing or benefitting from recreational fishing jobs. You can use these methods to

¹ The geographic boundary containing those stakeholders for whom a particular project outcome is relevant

better understand if your project has accessible jobs and how well those hired represent the distribution of people looking for opportunities in the recreational fishing industry.

The table below describes a suite of methods that build off each other to provide a more holistic understanding of the communities that are and can be employed by recreational fishing industry jobs in the project service area, and how accessible these jobs are for these communities.

The methods below that involve focus groups, surveys, or participatory exercises require inclusive stakeholder engagement² of all relevant communities within the project service area.

“Who” methods:

Method (click on method title to see more detail)	Method Outcomes	Method Description	Human Subject Research Expertise Needed*	Effort Level
Describe stakeholders	Project service area boundaries	Identify geographic boundary that encompasses all communities that could be employed in the recreational fishing industry in the project service area	No	Low
	Demographics and social vulnerability of the project service area	Collate demographic data of the communities in the project service area	No	Low
	Identity of potential employable workforce	Conduct a stakeholder assessment to understand who is interested and qualified for employment in the recreational fishing industry in the project service area	No	Low
Assessment of stakeholder perceptions on access to and distribution of recreational fishing job opportunities	Identification of access and barriers to access of recreational fishing industry employment opportunities. Understanding of whether access and distribution of jobs is disproportionate compared to the population of those in the project service area who want these jobs.	Step 1. Use focus groups, workshops, or surveys <i>targeting people in the project service area</i> to ask questions about access, distribution, and barriers to accessing jobs in the recreational fishing industry. Step 2. Consider information collected through step 1 in the context of the “who” information you already collected.	Yes	High

*Refer to the [NIH Definition of Human Subjects Research](#) for more information

² There are many resources available that provide best practices and guidance for inclusive engagement. Some examples include: [Five step approach to stakeholder engagement](#) (BSR); [Equitable Community Engagement Toolkit](#) (Boston Public Health Commission); [Designing equity-focused stakeholder engagement to inform state energy office programs and policies](#) (NASEO); [Inclusive community engagement](#) (C40 Cities), and; [Stakeholder engagement for inclusive water governance](#) (OECD).

