
Project Overview

The State of Oregon is developing a comprehensive plan to guide the potential siting of renewable ocean energy projects in Oregon's Territorial Sea. To this end, the state is revising its Territorial Sea Plan (TSP), and has begun collecting information on the spatial extent of human uses that provide economic and socio-cultural benefits. This kind of spatially explicit information on commercial and recreational fisheries and their value to fishermen has the potential to ensure representation of socioeconomic values in the design and implementation of a spatially explicit designation of special use areas, specifically for wave energy facility development within the Oregon Territorial Sea Plan (TSP).

Goals and Methods

Our goal is to compile the first-ever comprehensive map (or series of maps) that illustrate the commercial and consumptive recreational fishing use patterns and values along the entire Oregon coast from Astoria to Brookings. This project is a unique opportunity to bring fishermen's expert knowledge directly to bear on marine planning processes. By asking fishermen to share their knowledge of their fishing grounds and giving them a forum in which to express their values, the project engages stakeholders, provides better information to the planning process, and integrates the human dimension into marine spatial planning.

The main objectives of this project are:

1. Comprehensively describe Oregon's commercial and recreational fishing community and incorporate fishermen's knowledge into the development of future amendments to the Oregon Territorial Sea Plan (TSP);
2. Develop accurate maps depicting the extent of the local fishing grounds and their stated and economic importance to local fleets (just stated importance for the consumptive recreational fleet)
3. Analyze areas of high or valuable use in relation to existing or prospective alternative ocean uses
4. Collect baseline data for future analyses of economic contribution of the commercial and consumptive recreational sector to the coastal economy
5. Integrate data into Oregon's Coastal Atlas

The results of this project will considerably improve on what data are currently available. This is because Ecotrust has designed the methods and processes of this project to minimize the "garbage in, garbage out" problem that has plagued other marine planning processes. Fishermen have every incentive to tell the truth; any strategic reporting or misrepresenting the actual fishing grounds has the potential to do more harm than good. In addition, Ecotrust works very closely with fishermen throughout the entire project on validating and verifying the information collected.

Education and Outreach

Outreach and education efforts describing the purpose and intent of the project are crucial to obtain buy-in from the fishing community and to allay concerns around the handling, use, and analysis of data. Based on Ecotrust's previous experience, we believe that a proactive approach to addressing this sensitive issue will minimize misinterpretation of the project and products later in the process. This is best done by:

1. Meeting with key representatives from the fishing community (e.g., leaders of various fishing associations, members of the region stakeholder group, harbor masters) who have expressed interest in working together and who understand the value of the project.
2. Soliciting suggestions and ideas from these representatives for improving the project.
3. Identifying key individuals from the different fishing fleets of interest.
4. Holding meetings with fishing groups and partners to discuss and clarify what data is being collected, why it is being collected, and how it will be used in the marine planning process.
5. Distributing documents that clearly describe the purpose of the project, including the consent form each fisherman is asked to sign before his/her data can be used and Ecotrust's protocol for handling data.
6. Continuing to work with the fishing community throughout the project.

Interview Process

Interviews will be conducted in person using one-on-one or small group formats by Ecotrust personnel. The bulk of the interview will focus on characterizing the fishing grounds and assessing the relative importance of each fishing ground to each fisherman. Using electronic and paper nautical charts of the area, fishermen will be asked to:

1. Identify the maximum extent north, south, east and west they would target a species or group of species.
2. Identify, within this maximum forage area, which areas are of critical economic importance.
3. Rank these areas using a weighted percentage: using 100 points to distribute over the fishing grounds.

Ecotrust personnel will capture this information using a computer interface called Open OceanMap that contains electronic nautical charts and a series of tools for entering information. Respondents will draw or describe areas directly on this electronic interface, allocate points, and enter other important information. In addition, other information about the fisherman and his/her personal experience will be captured.

Commercial Fishermen

Given the information sought, a random sampling approach is less useful. Instead, for the commercial fleet, we will target fishermen who comprise the majority of the catch ("highliners") in each fishery based on the assumption that they have better spatial knowledge of the fishing grounds than less successful or part-time fishermen. That said, our approach is in no way intended to exclude anyone from participating in the project. All fishermen who wish to participate are welcome and encouraged to do so.

Recreational Fishermen

To address differing values of fishing grounds between different recreational user groups, we propose to stratify the recreational fishing fleet according to user type and geographical region or access areas. Our first step will be to determine the recreational consumptive population and an appropriate classification scheme that will provide useful for stakeholders and decision makers. At minimum, we will assess the following primary user types:

- Charter boats (including "6-packs")
- Motor powered private vessels ("sport boats")
- Kayak fishing

A purposive sampling design similar to the one we implemented for the commercial fleet will be applied to the charter boat fleet. Ecotrust will work with this sector to ensure that all operations are included in the survey and will attempt to achieve 100% representation. The fisheries profiled and fishing grounds provided by this fleet in this region will be: groundfish, salmon, halibut, tuna, and Dungeness crab.

Confidentiality

Ecotrust will take every measure possible to protect the confidentiality of sensitive information provided by fishermen during and after the interview process. These measures include functions in Open OceanMap, consent forms for individual participants, and collection and analysis protocols that mask all names and identifying characteristics of an individual's fishing grounds.

- Explicit consent will be obtained from all participants and will be recorded by Ecotrust personnel.
- All information on the individual level will remain anonymous and confidential. Only Ecotrust staff (operating under a strict confidentiality protocol) will handle the raw data collected during the interviews.
- Analyses and results will be presented in aggregate form for participating fishermen from each fishery to review before results are finalized.
- Open OceanMap has been customized to protect individual confidentiality. Participants will not be allowed to add existing or previously created data to Open OceanMap.