

Fishing Community Mapping Project : Informing Oregon's Territorial Sea Plan

OPAC Territorial Sea Plan Working Group

March 4th, 2010

Charles Steinback

Director of Marine Planning



Project Background

- Goal 19 - Protect and encourage the beneficial uses of ocean resources--such as navigation, food production, recreation.....
- Compile comprehensive dataset that illustrates the commercial and consumptive recreational fishing use patterns and values along the entire Oregon coast from Astoria to Brookings, capturing the expert knowledge of fishermen.
 - Improved quality/spatial resolution appropriate for planning process
 - Spatially explicit information will ensure representation of socioeconomic values for incorporation into the TSP

Process

- Outreach and education
 - Meetings, liaisons, documentation, seek input, relationships
- Survey and sample design
- Data collection – interviews
- Spatial analysis and visualization of fishing grounds
 - Aggregate individual responses
 - Fishing footprint for each port in Oregon
 - Map products created based on fishing community and State's needs
- Quality assurance and control
 - Individual and multiple group reviews for accuracy and presentation – extensive process
- Final report and products (maps)

Methods

- Ports – Astoria, Garibaldi/Tillamook, Pacific City, Depoe Bay, Newport, Florence, Winchester Bay/Reedsport, Coos Bay/Charleston, Bandon, Port Orford, Gold Beach, and Brookings
- Identify fisheries for each sector (and port), where appropriate differentiate by gear type (i.e., trap, hook and line, trawl, etc.)
- Commercial - goal was to represent at least 5 fishermen and 50% of the total landings from 2004-08 in each fishery, gear type, and port complex combination
- Charter - attempted to capture all of the charter and six-pack operations in each port
- Recreational – private vessel and some kayak

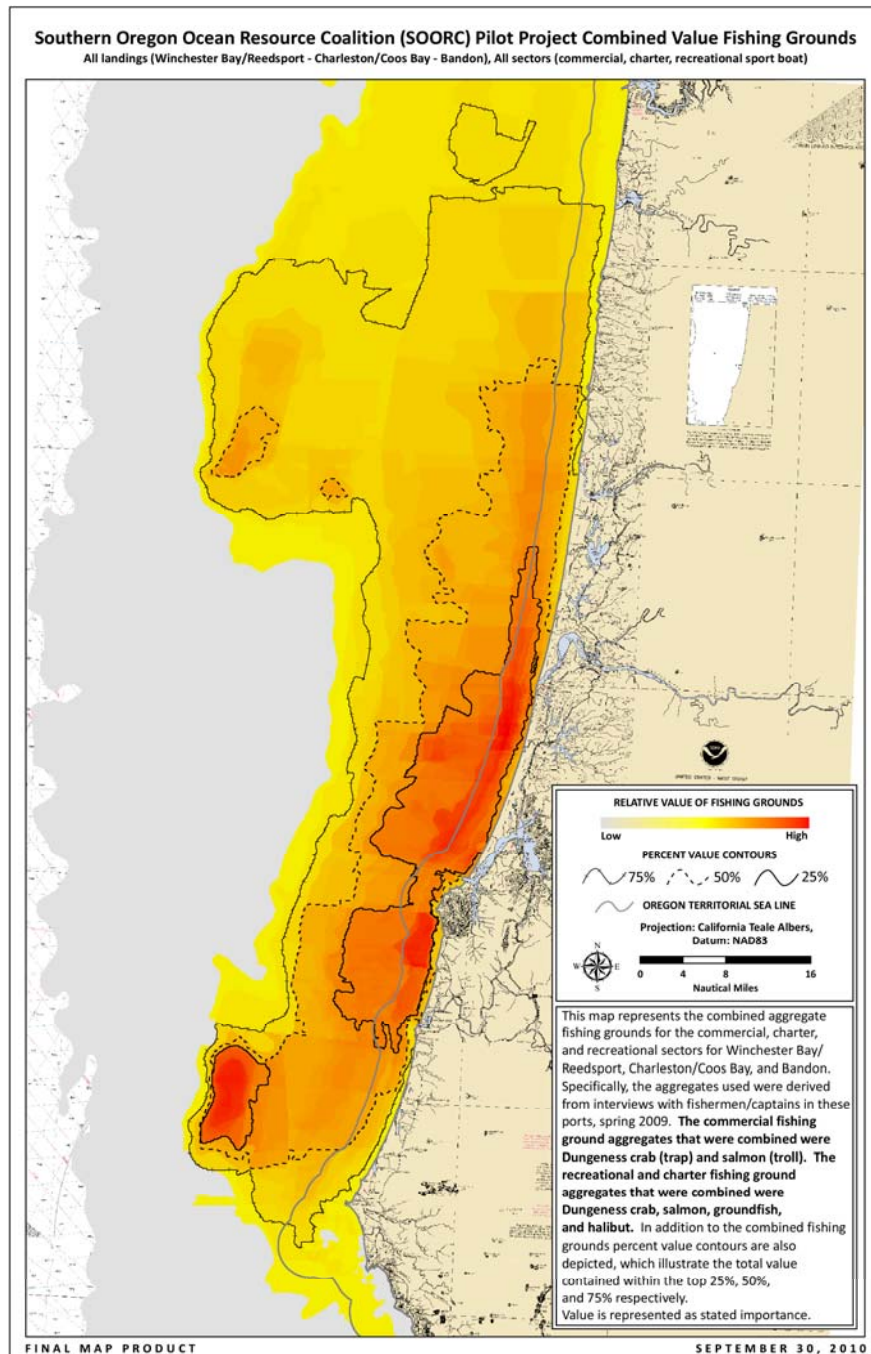
Methods: Interview

- Same protocol is followed for each fishery the interviewee participates in:
 - Fishermen indentifies all fishing areas/locations that are of economic importance over their cumulative fishing experience
 - Fishermen rank areas using a weighted percentage by allocating 100 pennies that they distribute over their fishing grounds
 - Non-spatial information pertaining to demographics, fishing characteristic, and socioeconomic data is also collected



Results

- Total 541 fishermen interviewed: 241 commercial, 63 charter, and 237 sport
- Statewide, we met our sampling goal for nearly 75% of all examined fisheries:
 - Highest was pink shrimp – trawl (75%)
 - Dungeness crab – trap; more than 50% within each port and statewide (59%)
 - Lowest, despite interviewing 113 salmon–troll fishermen and 109 tuna-troll fishermen, the second and third most interviews fisheries in our study, we achieved only 27% and 15% representation respectively
- Detailed study results are summarized in final report and maps are available in Oregon MarineMap



Cross Sector Aggregate Map

Produced maps by fishery for each sector and through numerous reviews and iterations with SOORC, the fishing community, and the State arrived at this aggregation which was approved at the December 2009 SOORC mtg.

Combines all three sectors by giving equal weighting to each fishery in a sector and across sectors.

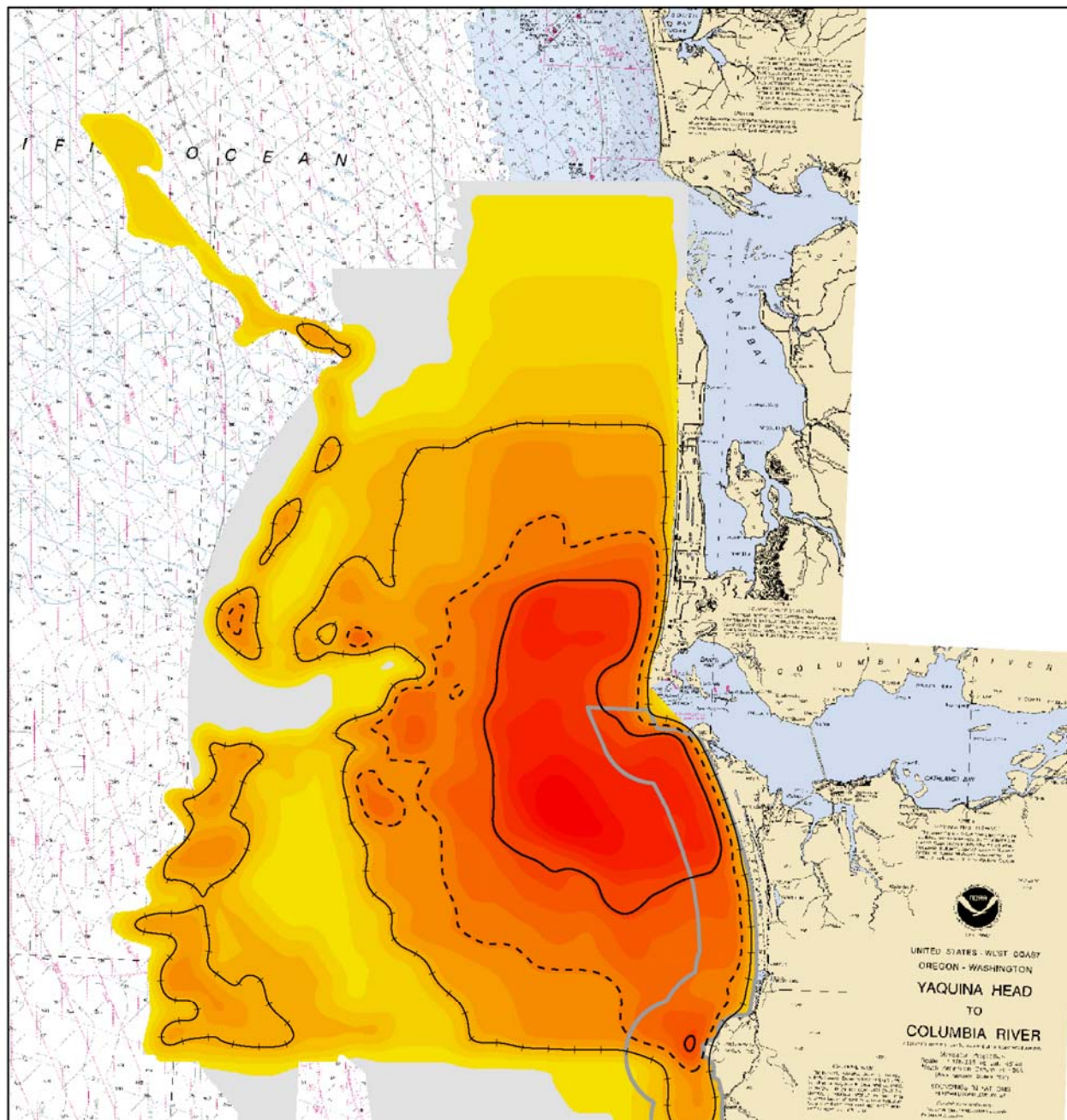
Within each sector:

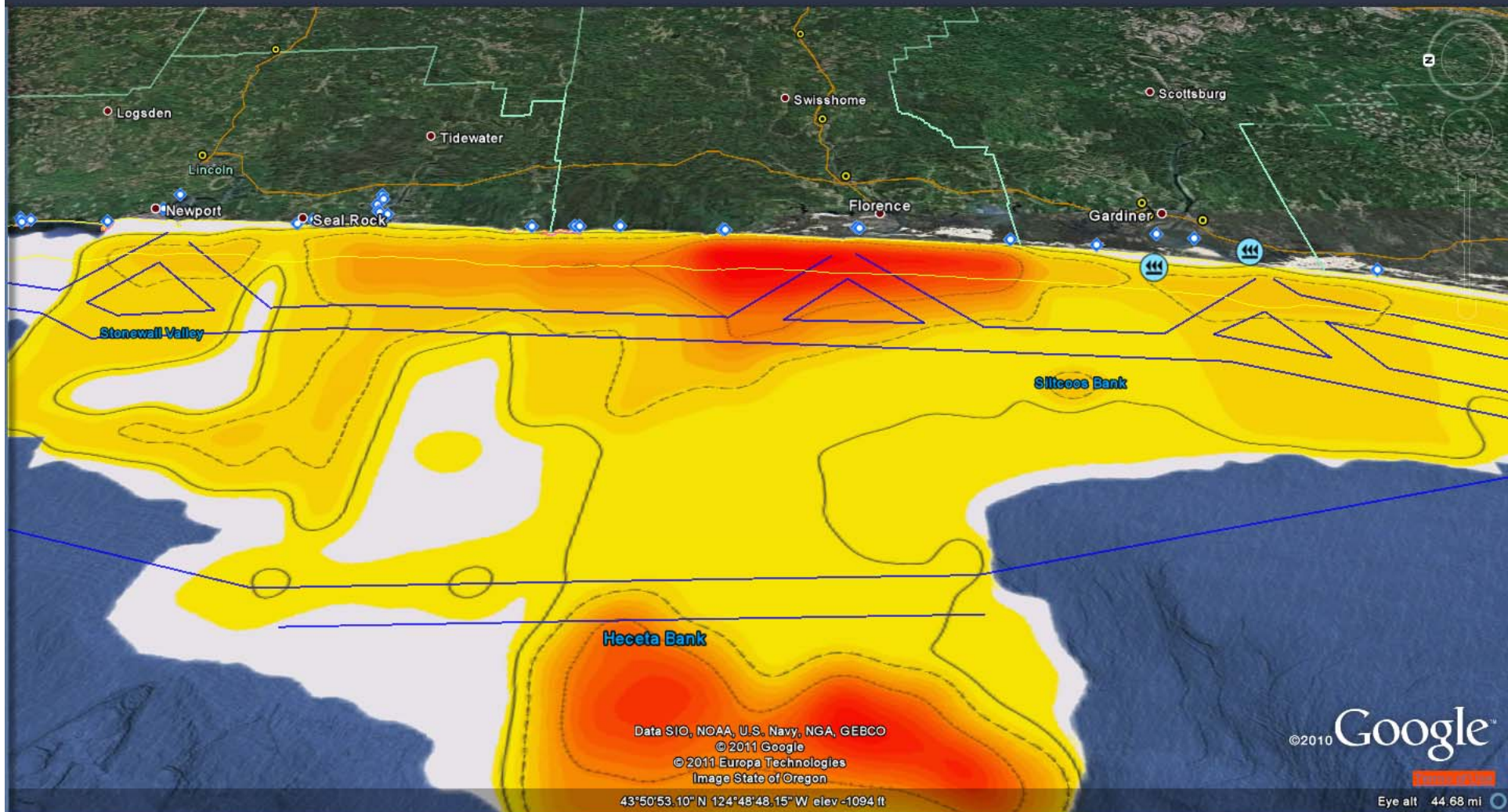
- Commercial weighted by ex-vessel revenue (gross)
- Charter weighted by gross revenue
- Recreational weighted equally by stated importance

Astoria Charter Combined Value Fishing Grounds

All Landings (Astoria - Warrenton/Hammond - Ilwaco)

Oregon Territorial Sea Plan Amendment Process: Marine Fisheries Uses and Values Project





Summary & Next Steps

- Comprehensive data that represents the spatial use patterns, values, and economic importance didn't exist
- Results allow for cross-comparisons within and across user groups
- Data will support Goal 19 areas for protection: areas of importance to fisheries
- Using data collected - developing state-wide maps for each of the commercial fisheries first, then other sectors
- Support DLCD – work with fishing community groups to evaluate how maps are used in the spatial analysis to derive Goal 19 areas for protection

Acknowledgments

- The fishing community – none of this happens without their support, time, and effort – grateful to countless individuals along the entire coast
- Partner: Oregon Coastal Zone Management Association
- Funding: Oregon Department of Land Conservation and Development, Oregon Wave Energy Trust, and Packard Foundation, Marisla Foundation, and NOAA
- Thank you: Oregon Department of Fish and Wildlife, Sea Grant, and The Research Group