Use Analysis Process Update

Washington Coastal Marine Advisory Council Meeting

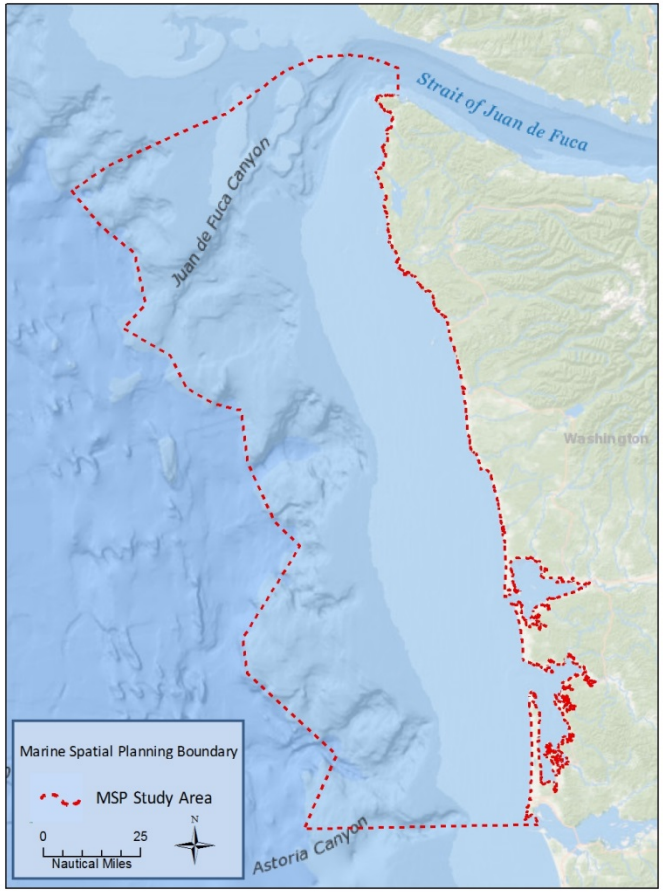
February 10, 2016

Port of Grays Harbor

Outline

1. Outline of MSP & Use Analysis project
2. Methods/Approach
3. Existing Use Maps
4. Next steps
5. Discussion

Scope of MSP



The study area is 700 fathoms offshore and includes federal waters and estuaries.

INTENT:
Address location of potential new marine uses.

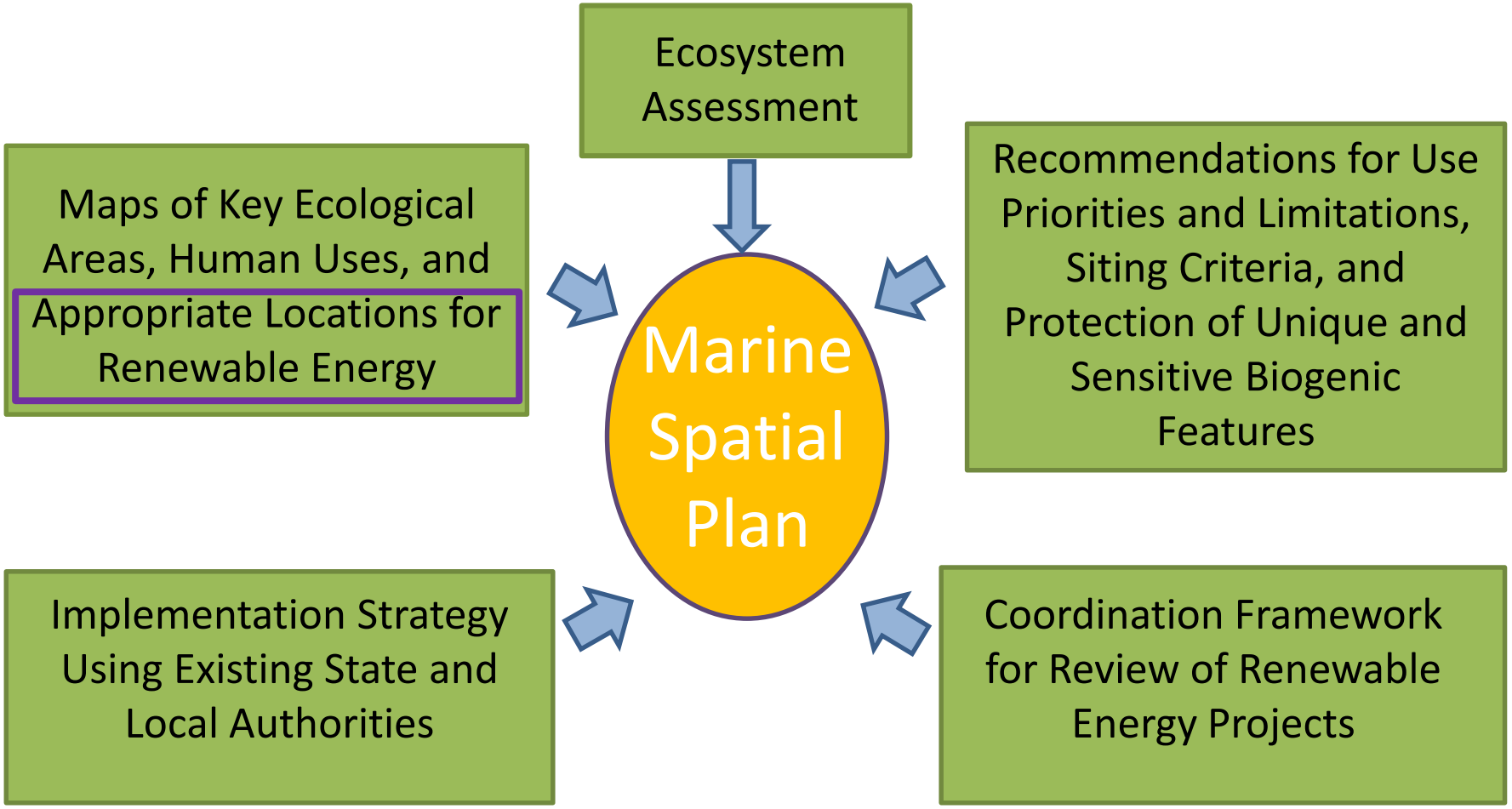
PLAN GOALS/OBJECTIVES:

- Protect existing uses
- Protect cultural uses/resources
- Preserve environment
- Integrate decision-making
- Provide new economic opportunities

NON-REGULATORY PLAN

MSP Context

The marine management plan must include but not be limited to…



RCW 43.372.040(6)

(6) The marine management plan must include but not be limited to:

. . .

(c) A series of maps that, at a minimum, summarize available data on: The key ecological aspects of the marine ecosystem, including physical and biological characteristics, as well as areas that are environmentally sensitive or contain unique or sensitive species or biological communities that must be conserved and warrant protective measures; human uses of marine waters, particularly areas with high value for fishing, shellfish aquaculture, recreation, and maritime commerce; and appropriate locations with high potential for renewable energy production with minimal potential for conflicts with other existing uses or sensitive environments;

-RCW 43.372.040

Use Analysis Process

Final Products:

1. Maps that provides general sense of where higher levels of conflict *may* occur with new uses

2. Recommendations for planning regarding new uses (space use)

Use Analysis Approach

1. Produce maps for existing uses by sector:
   - Intensity of uses
   - Number of uses present
2. Overlay all sector maps to produce map of all existing uses
   - Intensity of uses
   - Number of sectors
3. Overlay renewable energy maps for comparison
4. Develop recommendations

Process To Date

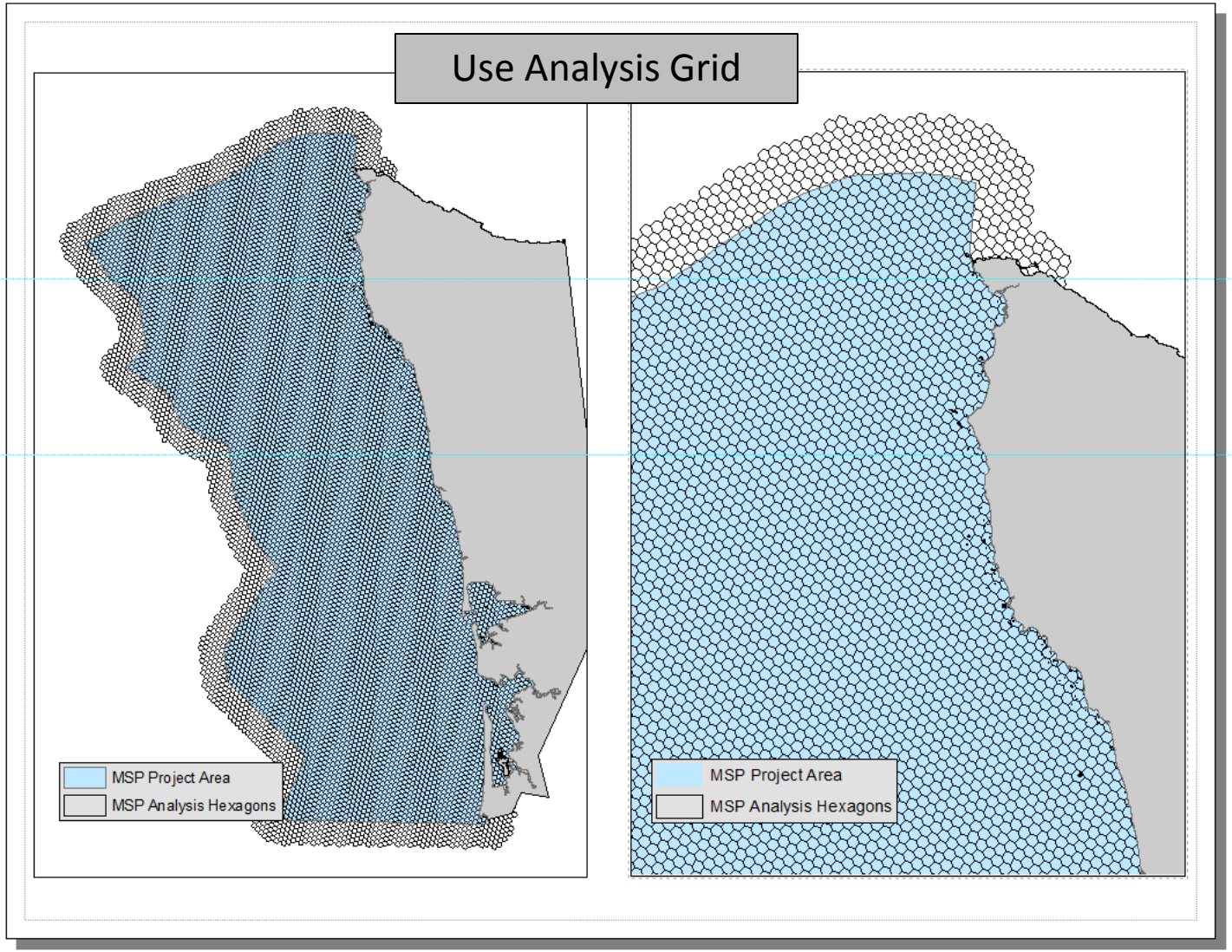
- Briefings to WCMAC on concept and process
- Meetings with marine use sectors regarding data sources and potential conflicts with new uses.
- GIS work (*ongoing*)
- Tribal briefing and input (*ongoing*)

Existing Use Scoring Criteria

- Use intensity data, where available.
- Convert data to footprints of where the use occurs (or not) for “number of uses” maps.

- Retain conflict coding for existing use data layers within attributes of data, where available:
  - High, Medium, Low, None

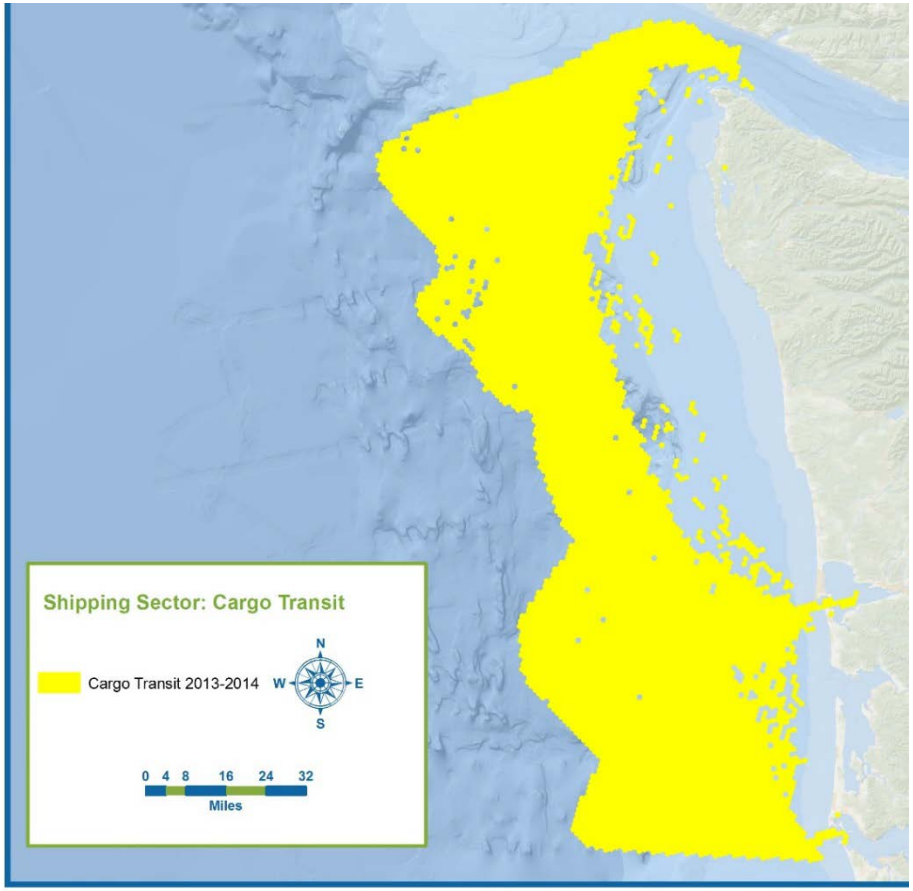
Analysis Unit = 1 Sq Mile Hexagons



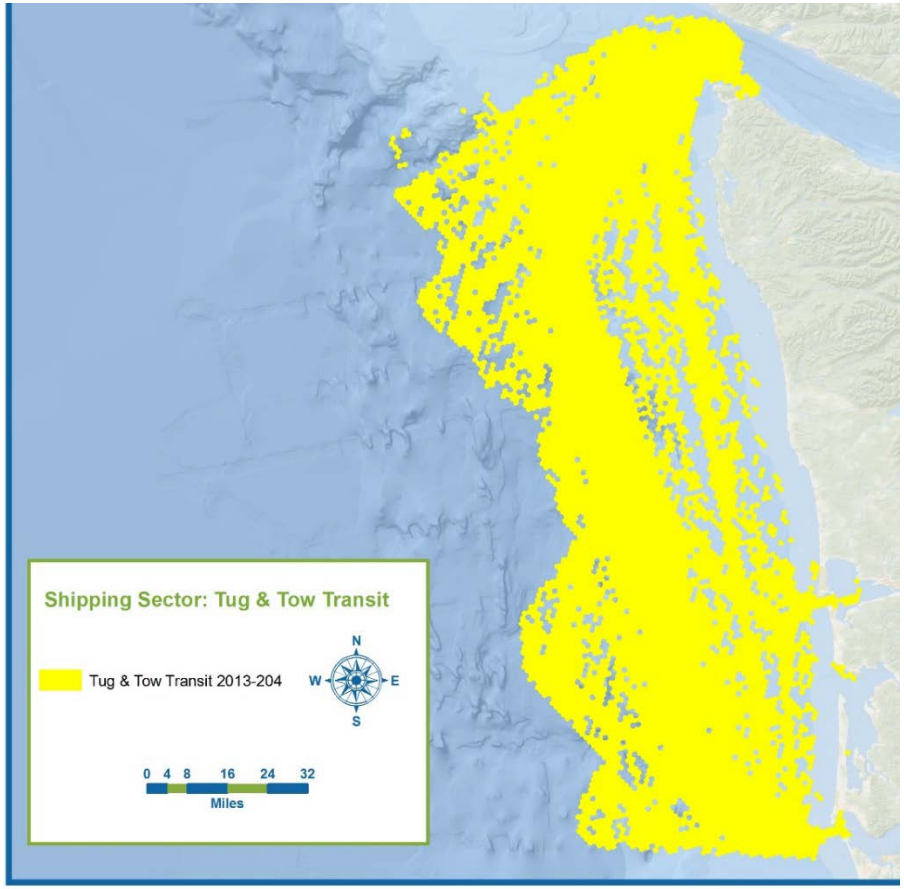
There are 8,272 hexagon cells in the grid within the boundaries of the planning area.

Shipping: footprint maps

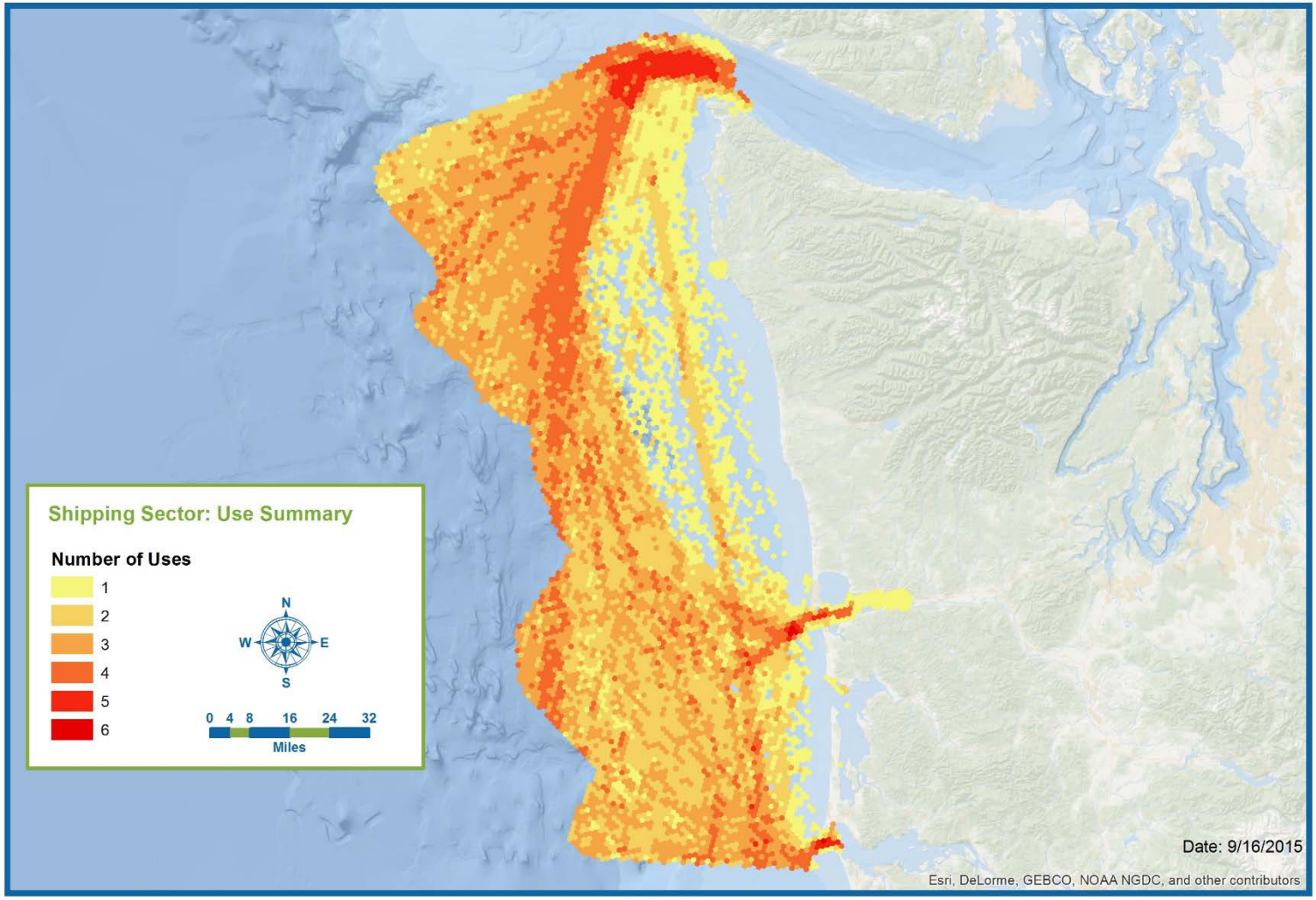
Footprint of use: Cargo



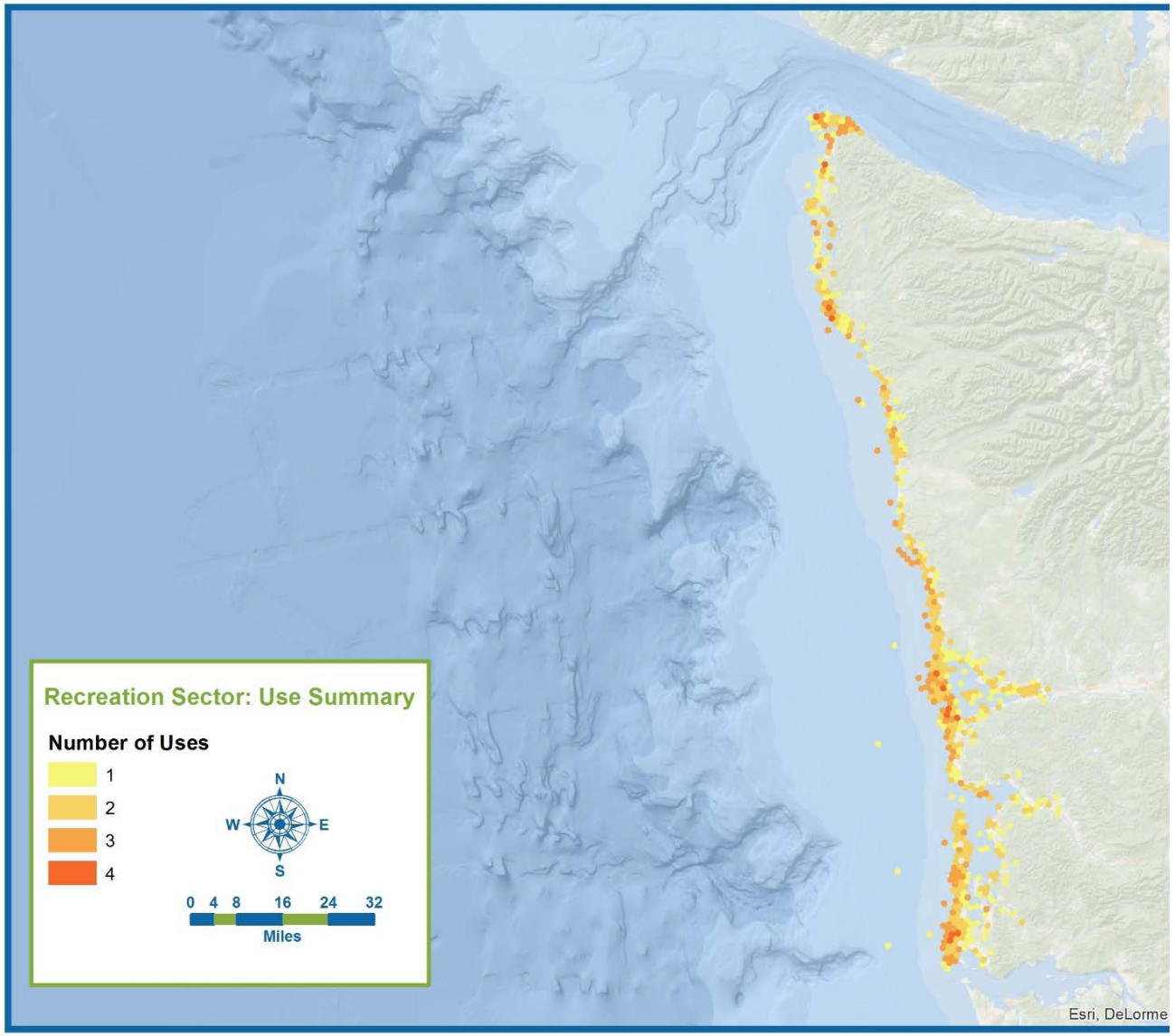
Footprint of Use: Tug and Tow



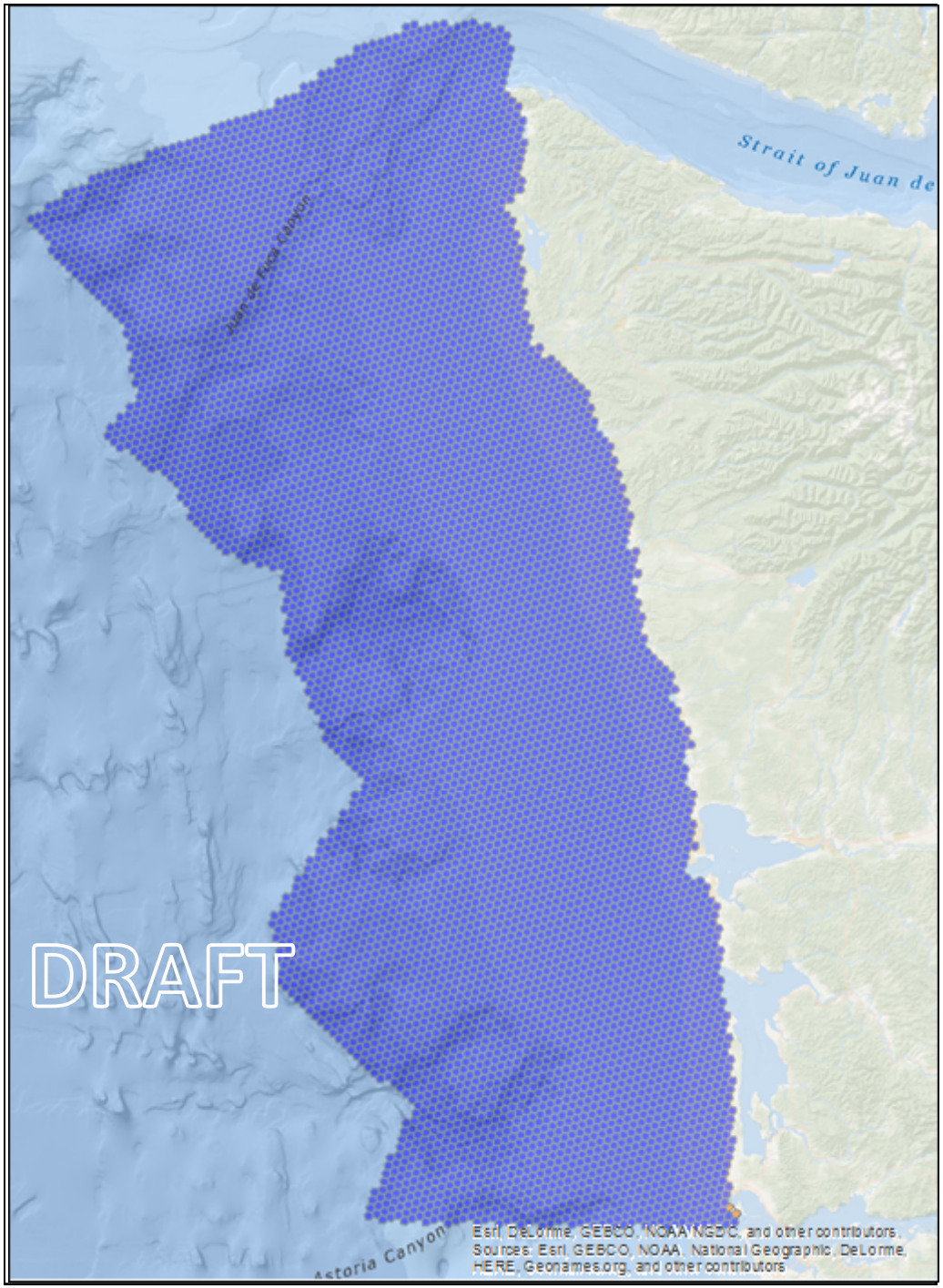
Shipping: draft footprints of types of vessels



Non-consumptive Recreation: draft footprint of types of recreation



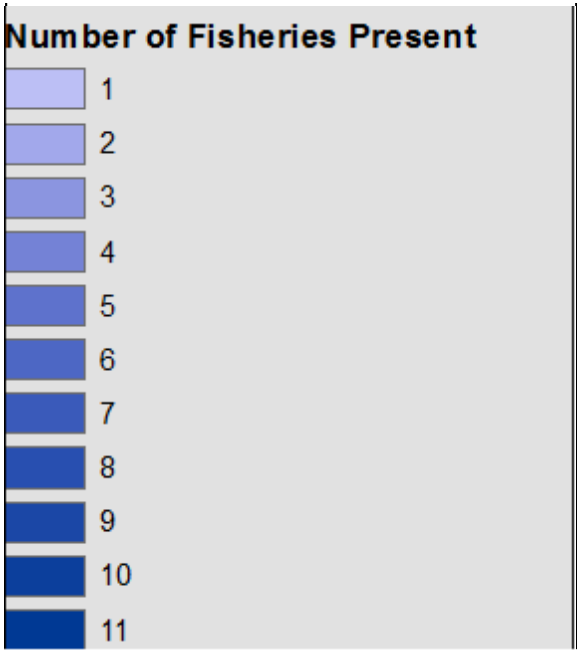
Footprint Map – The "Fisheries" Sector

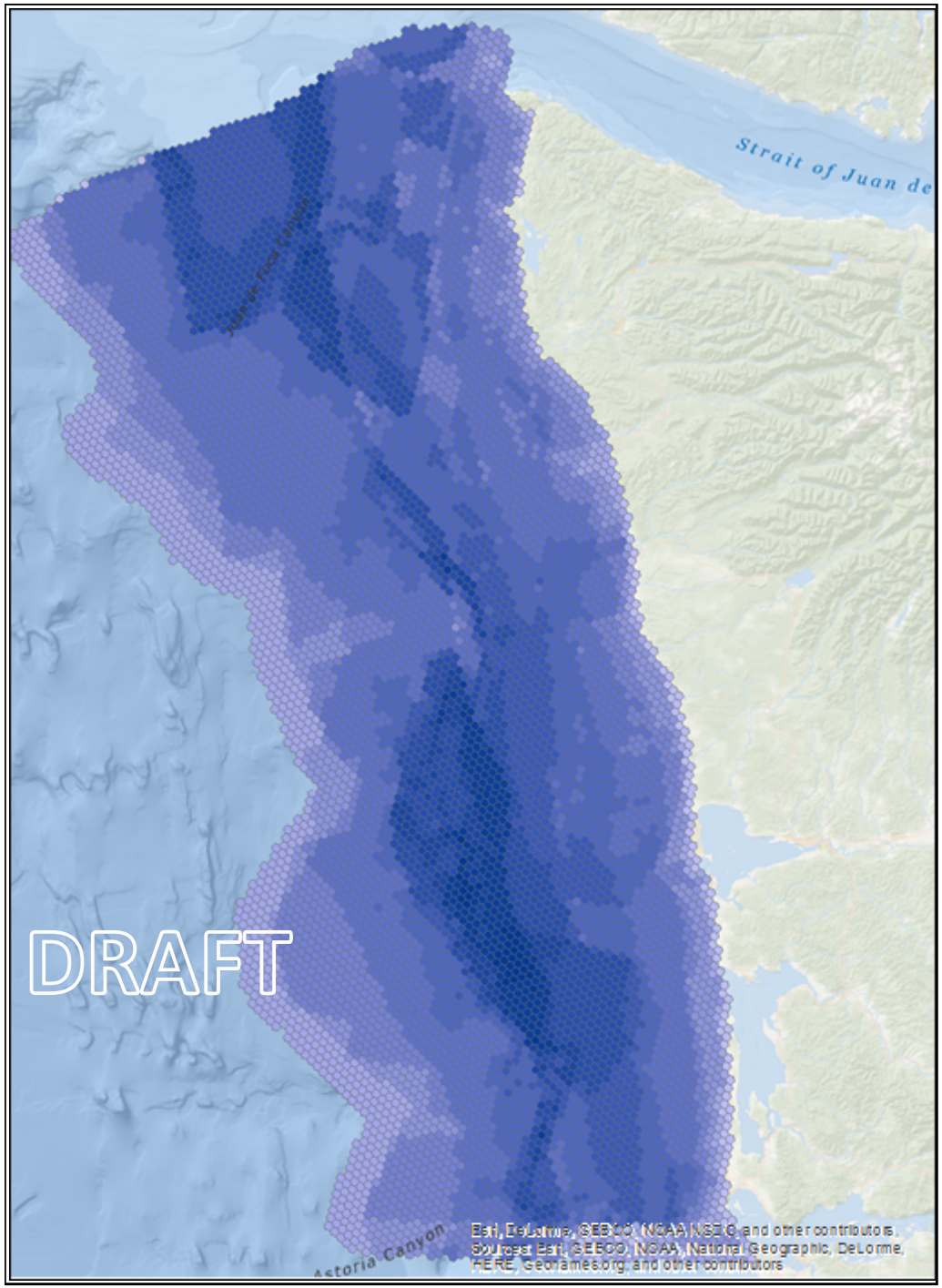


Fisheries Use Present?

- No
- Yes

Footprint Map – Individual Fisheries

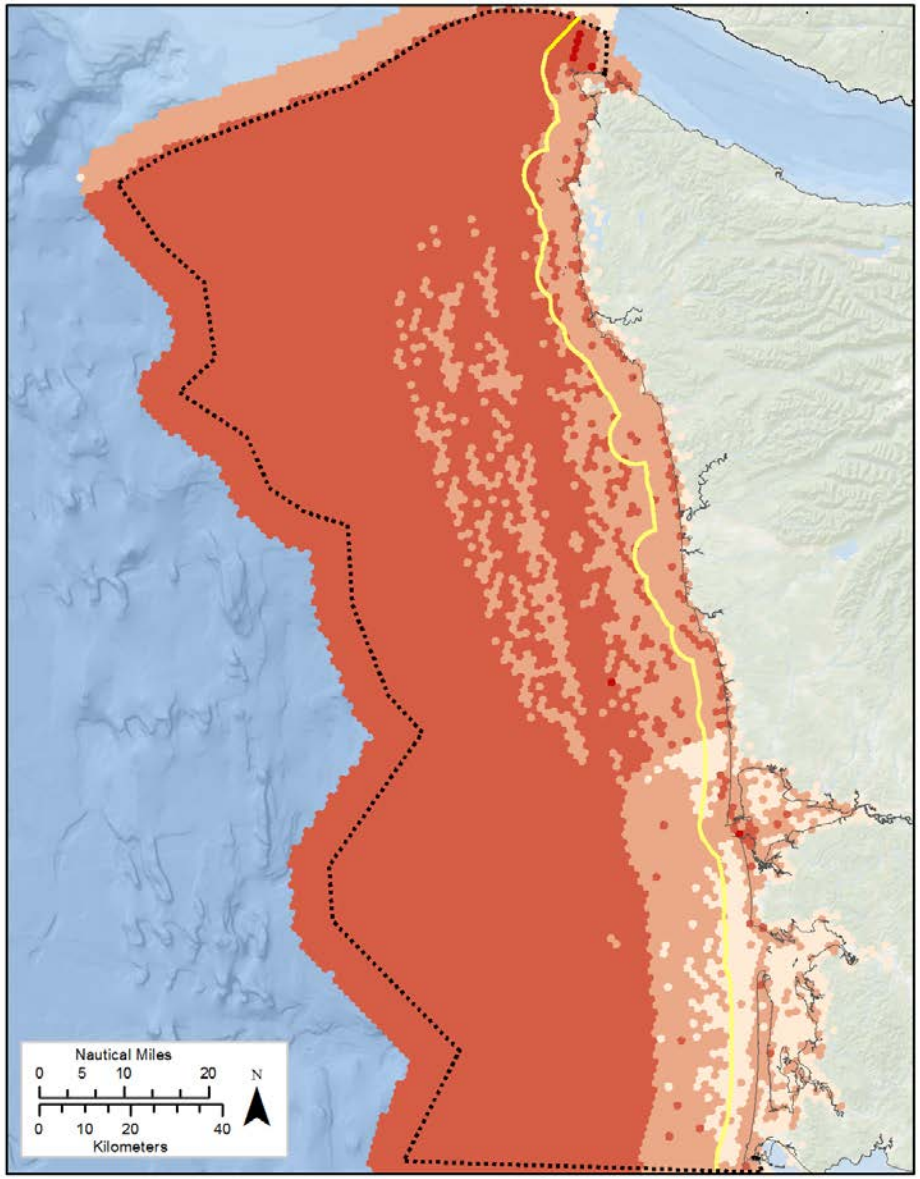




DRAFT: Number of Sectors – Combined Footprints

*without Ecologically Important Areas

DRAFT | Number of Sectors Using the MSP Study Area



Number of Sectors Using the MSP Study Area

2 3 4 5

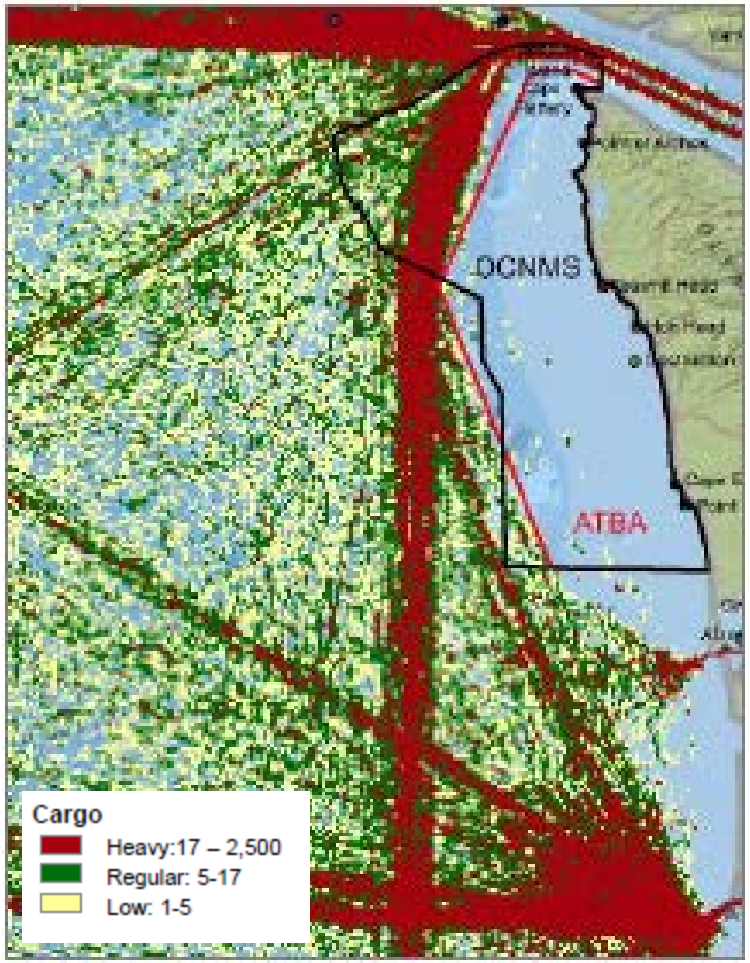
WA MSP Study Area[7]

WA State Boundary[11]

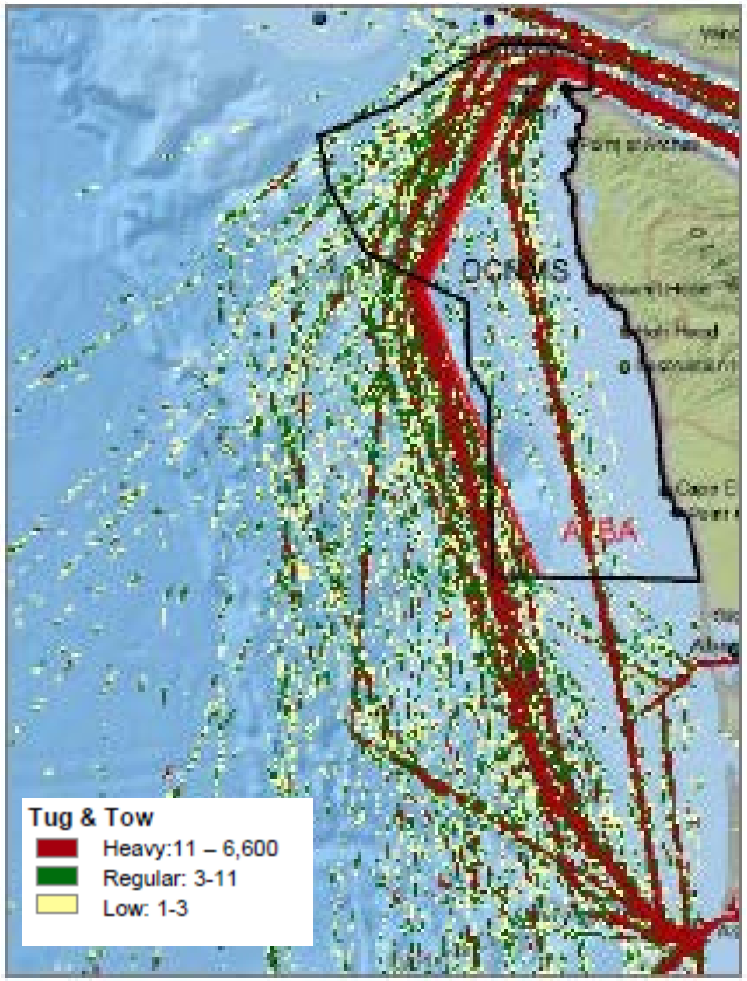
The map represents geographic regions within the MSP study area that have any level of use occuring in any of the Aquaculture, Fishing, Military, Recreation, Archaeology/Historical Sites, and Shipping sectors.

Shipping: draft use intensity data

Intensity data: Cargo

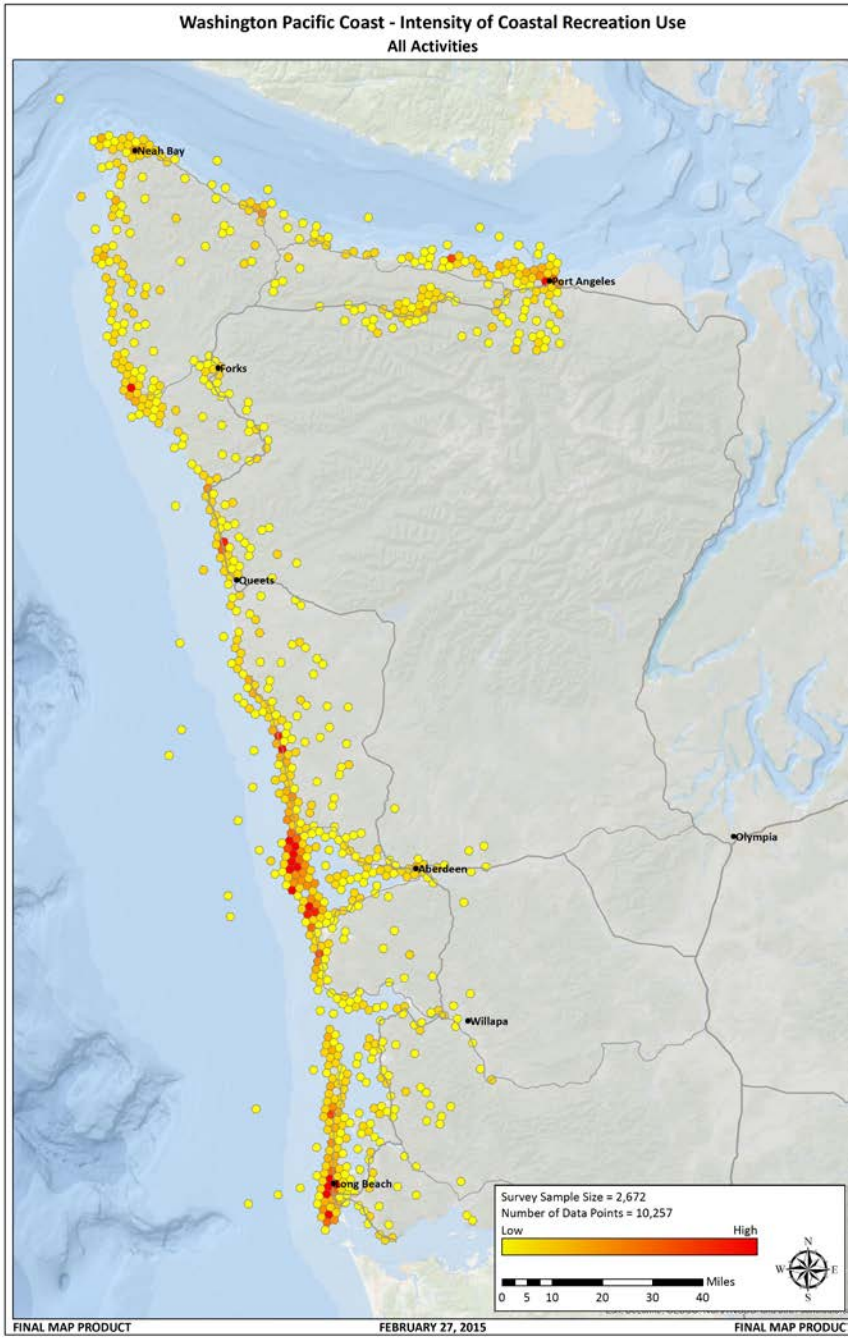


Intensity data: Tug and Tow



Non-consumptive Recreation Study:

Intensity of use data across all activities

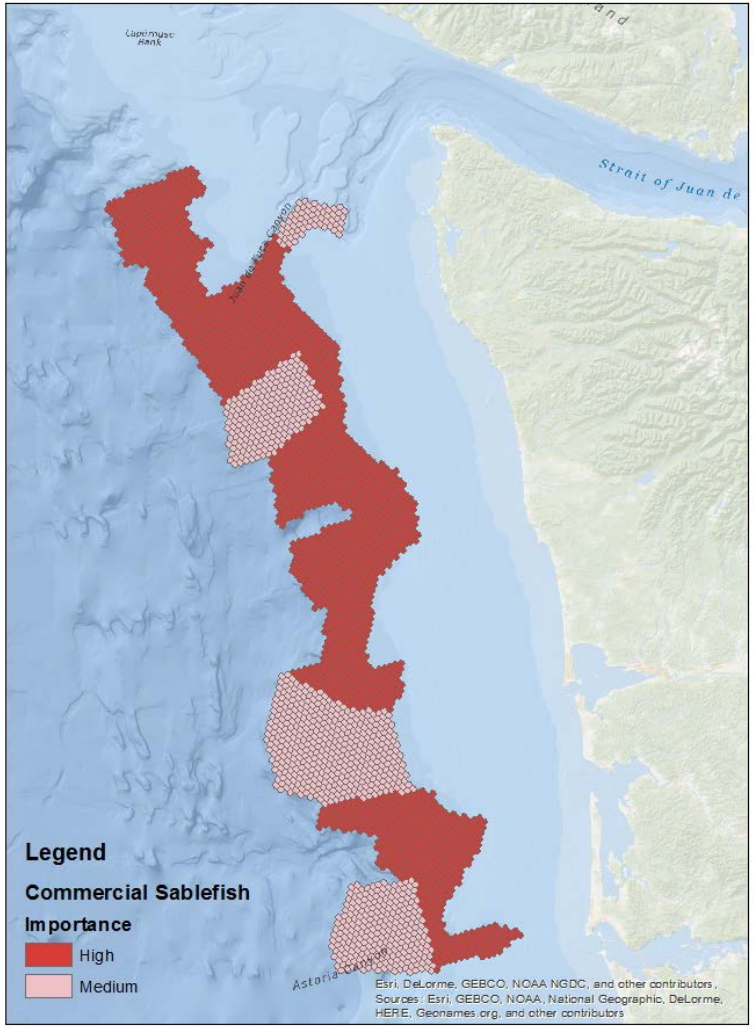


The Fisheries Use Maps

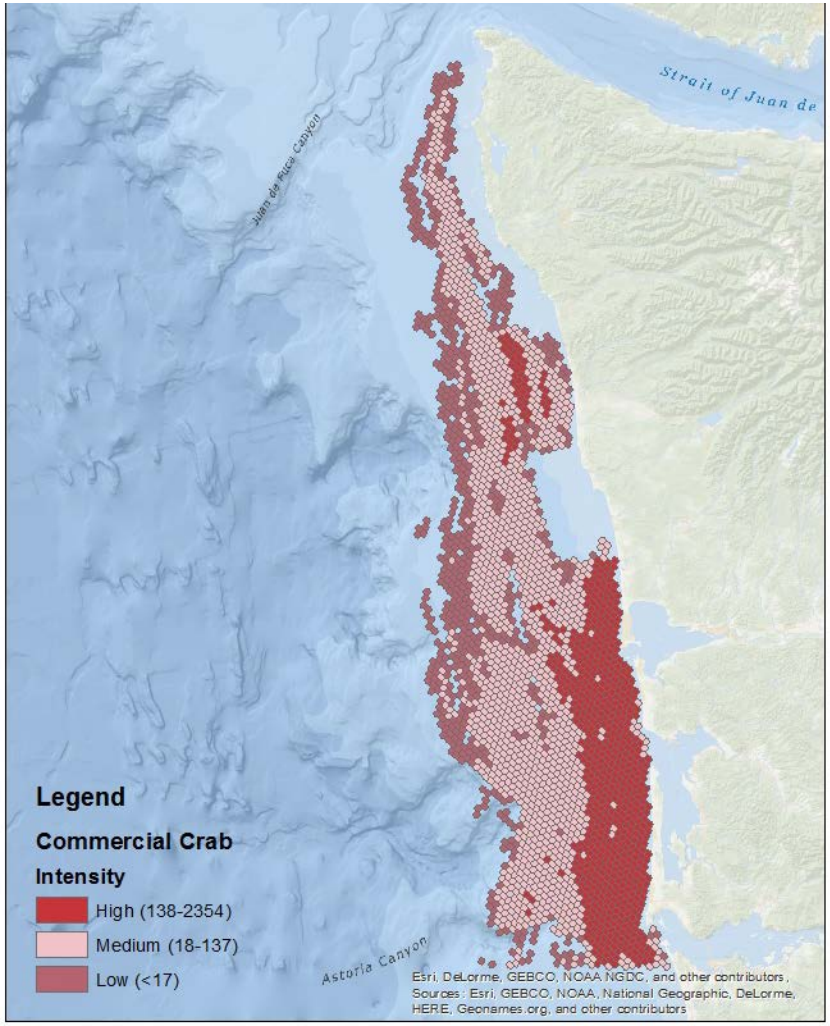
	Commercial
1	Albacore
2	Dungeness Crab
	Groundfish
3	Fixed Gear
4	Bottom Trawl
5	Pacific Whiting
6	Pink Shrimp
7	Salmon
8	Sardine
	Recreational
9	Albacore
10	Bottomfish and Lingcod
11	Pacific Halibut
12	Salmon

Non-tribal Commercial Fishing: use intensity data

Non-tribal commercial sablefish

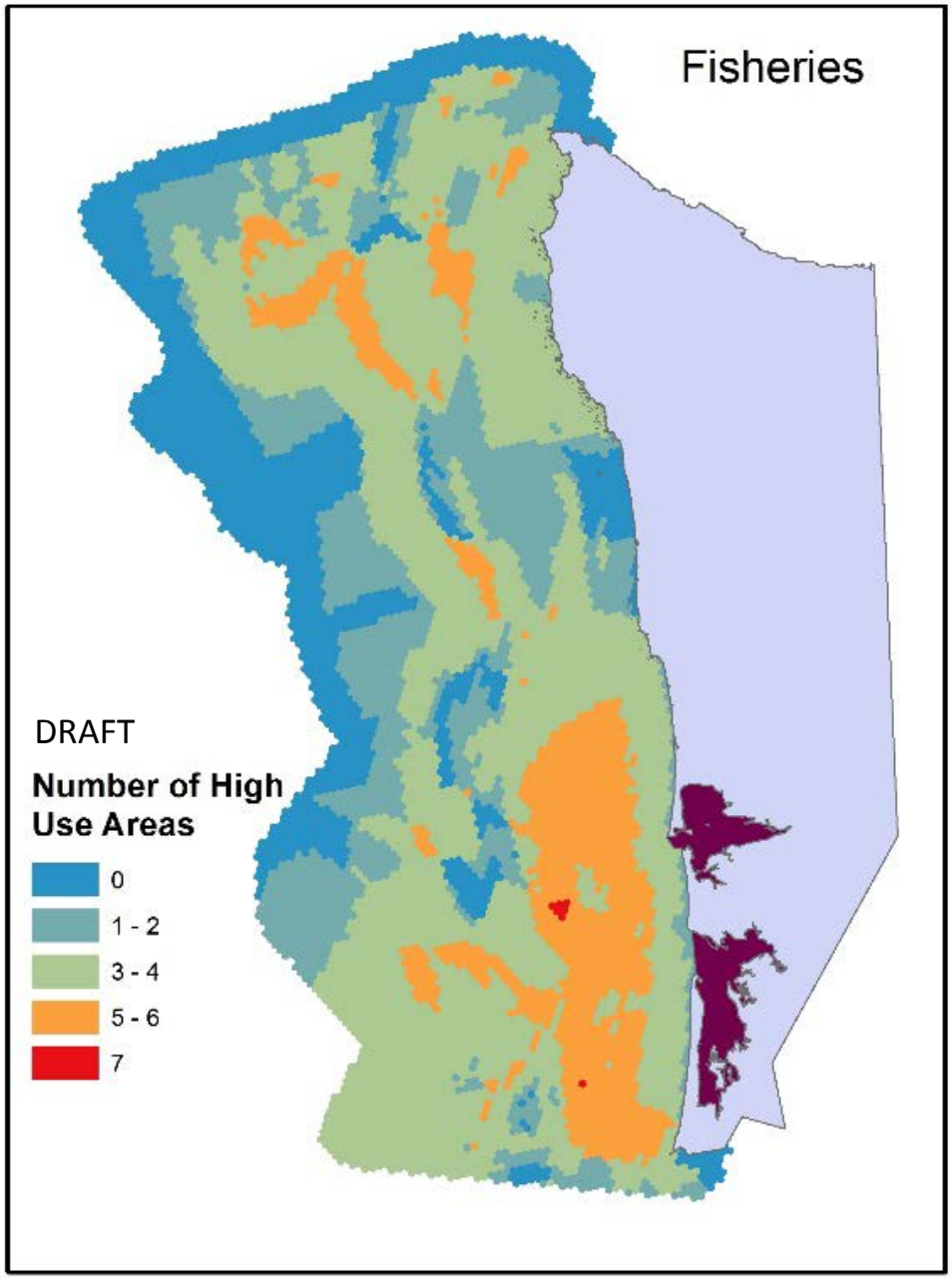


Non-tribal commercial crab fishing



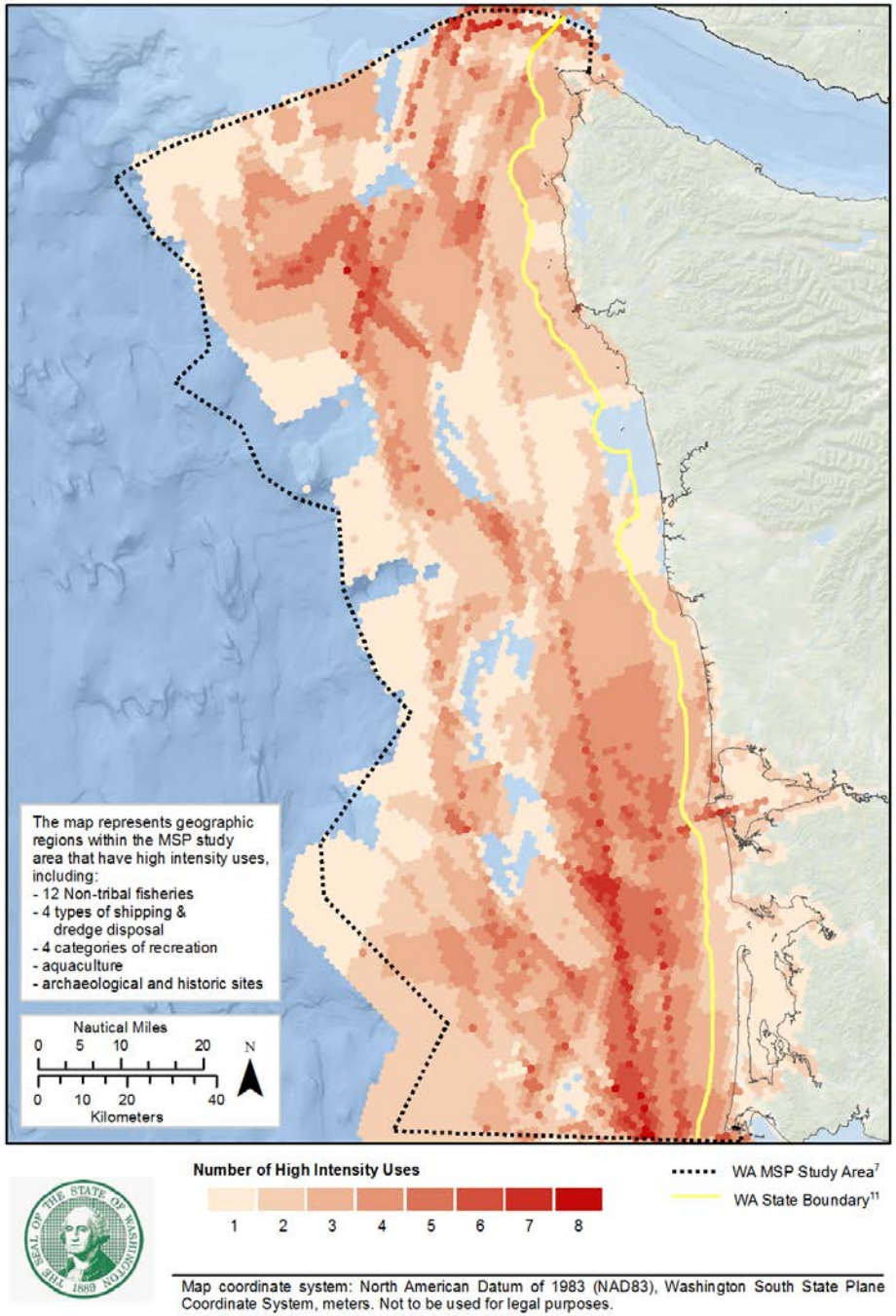
Non-tribal Commercial and Recreational Fisheries

Number of "High" intensity uses

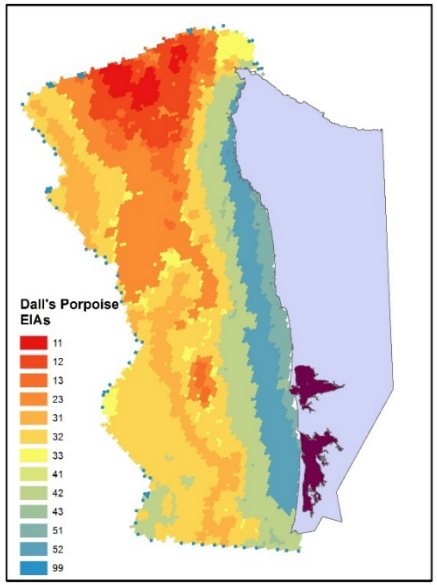


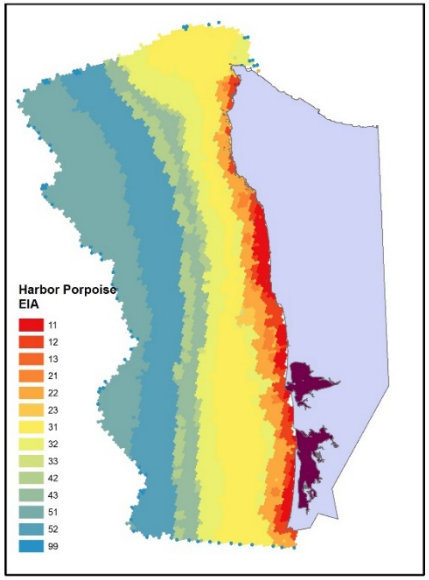
DRAFT: Combined High Intensity Use Areas

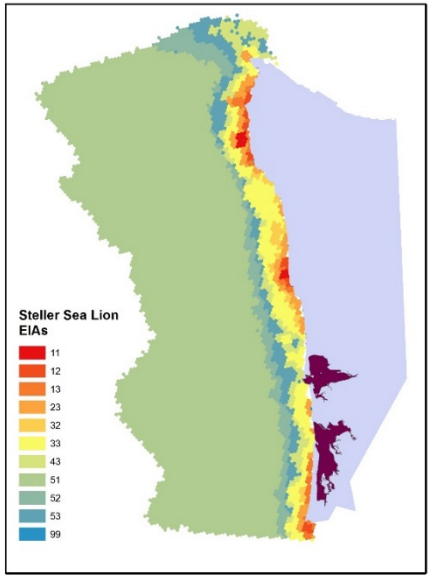
*without Ecologically Important Areas

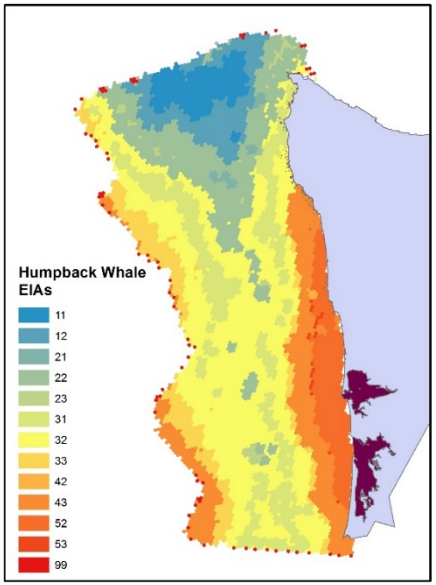


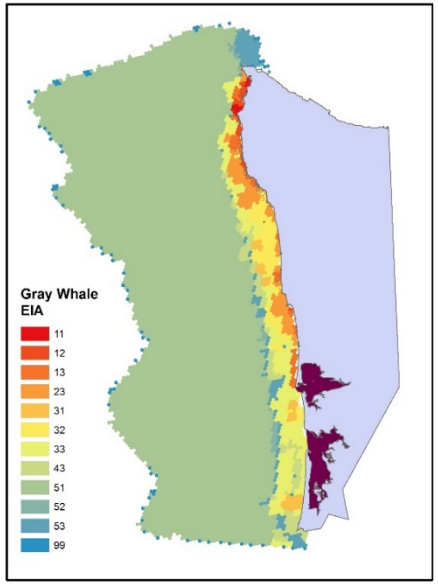
NCCOS Marine Mammal Ecological Models – Ecologically Important Areas Data

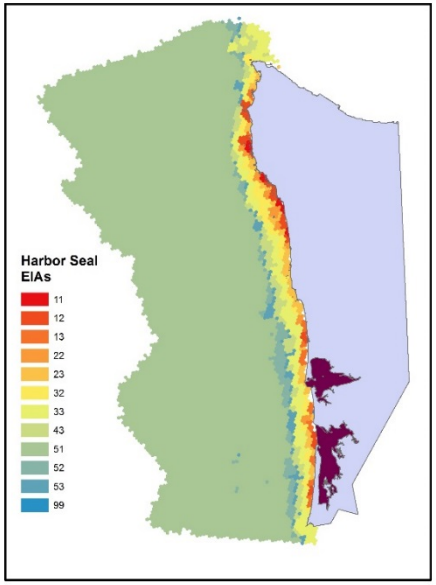






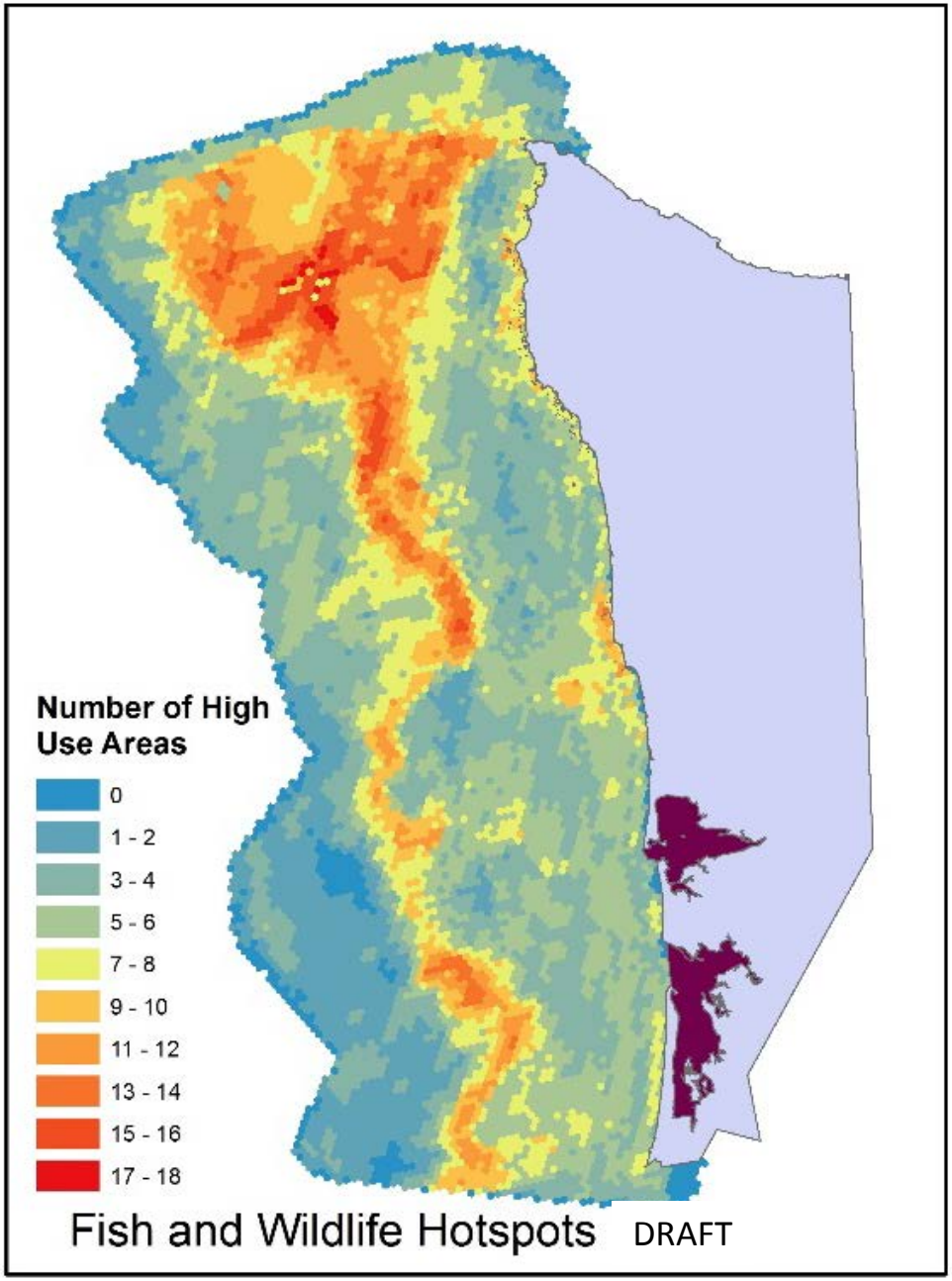






DRAFT: Ecologically Important Areas "Hotspots"

*includes marine mammal data

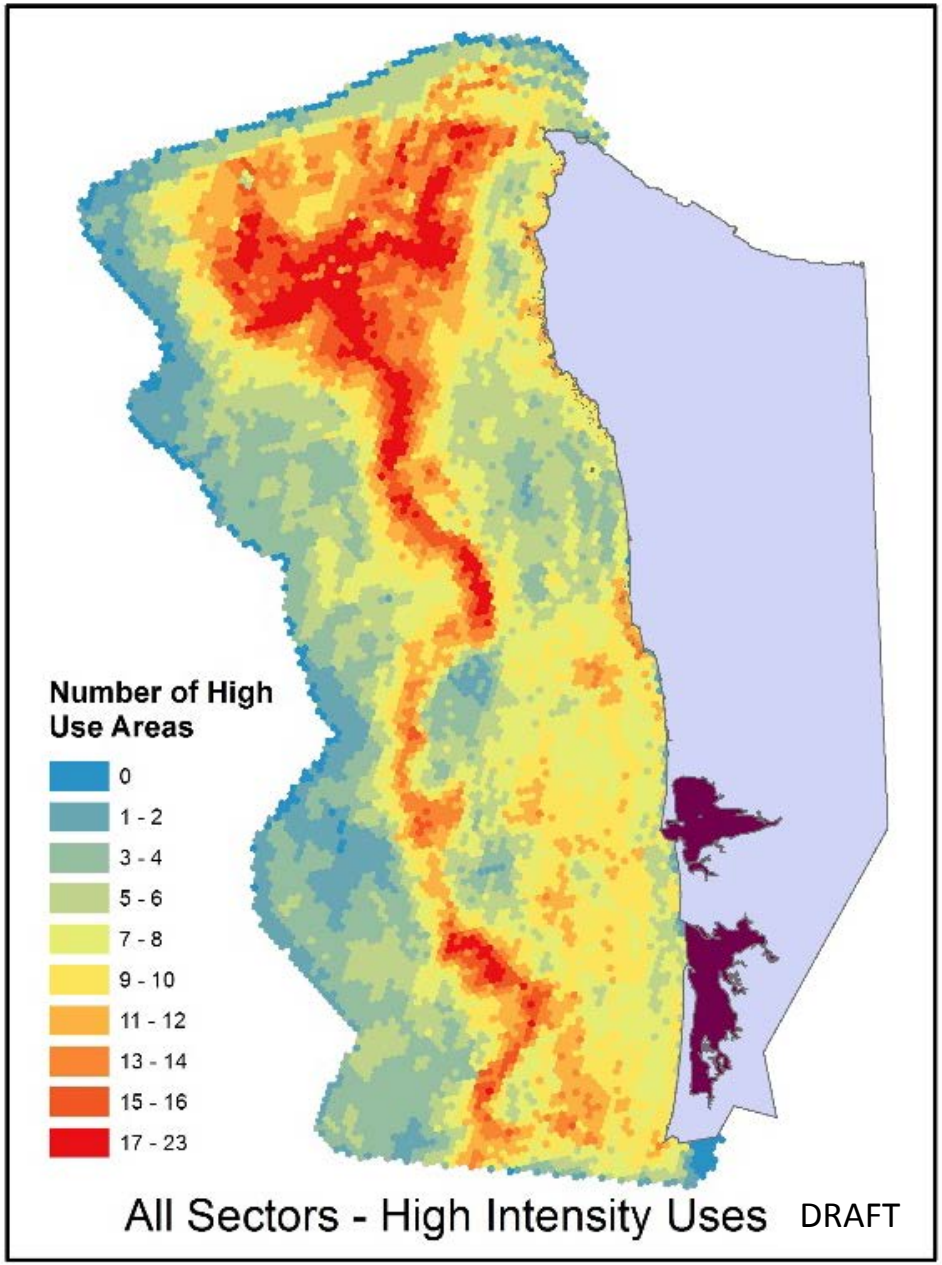


DRAFT: All High Intensity Use Areas

*includes Ecologically Important Areas

&

estuaries of importance



Use Analysis Approach

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   - Number of uses
3. **Overlay renewable energy maps for comparison**
4. **Develop recommendations**

Next Steps & Timeline

Summer	Sector input on data & GIS work
June/Sept	**WCMAC – briefings for Advisory Council**
Nov. 9	WDFW fisheries maps workshop
Fall	GIS work
Dec. 4	**Tribal policy & technical review**
Dec. 9	**WCMAC - review draft use maps, input on next steps (i.e. renewable energy comparison)**
Winter	GIS work: incorporate Ecologically Important Areas, refine use maps, options for renewable energy comparison
Winter	**Tribal input and recommendations**
Feb 10	**WCMAC – update on maps and next steps**
March/April	**Tribal feedback**
April 20	**WCMAC – discuss renewable energy comparisons & recommendations**
June 15	**WCMAC – finalize recommendations**

Questions/Discussion

OIL SPILL RISK

Who is involved in addressing spill risks?

U.S. Coast Guard
U.S. EPA
NOAA
Dept of Interior
Dept of Transportation
Dept of Energy
Dept of Defense
Dept of Homeland Security

Northwest Straits Commission
Area Maritime Security Committee
Harbor Safety Committees
State Emergency Response Commission
Local emergency planning committes
Tribal emerg. planning comm.

WA Dept of Ecology
WA Dept of Health
WA Fish & Wildlife
WA State Parks
WA Emergency Mngmt Div.
Utilities and Transportation Commission

Pacific States/B.C. Oil Spill Taskforce
Regional Response Team
NW Area Committee
WA Sea Grant
Puget Sound Partnership

DEPARTMENT OF ECOLOGY
State of Washington

MARINE SPATIAL PLANNING
Economic Analysis Study FAQ Document

Prepared for:
Washington Coastal Marine Advisory Council

Presented by:
Cascade Economics LLC

Overview of Study Schedule

- Public Scoping Workshop – Oct. 7, 2014
- Comments / Revised Scope of Work
- Study Initiated – Nov. 1, 2014
- Data Collection / Focus Group Meetings / Modeling / Analysis / Report Writing
- Draft Report – distributed May 27, 2015
- Review by WCMAC and Interested Public
- Presentation – June 1, 2015 Workshop Meeting
- Final Report –June 30, 2015

Development of Questions for an FAQ Document

- Synthesis of questions from:
  - Scoping Process
  - Science Advisory Panel Review
  - Updates and Draft Reviews
  - June 1 Workshop
- Research outcomes
- Technical Committee Input
- Agency Input

Methodology

Why model the coast as a collection of counties and not as five individual ones? *(p. 1)*

- A single "functional economic area" to incorporate the linkages and interrelationships between economic sectors in the coastal region
- The smaller the region, the *less* the indirect and induced economic effects that accrue in the region itself
- certain critical inputs for the economic impact modeling are very difficult to measure on a county-specific basis.

Methodology

Why doesn't the coastwide model include just the coastal area? *(p. 1)*

- Most economic data are available at county level
- Parsing into small subareas does little to illuminate the economic linkages between employers and employees, buyers and suppliers, and stores and customers
- "Functional economic region" is more useful in sparsely populated areas

Economic Profile of the Coast

Why do the fisheries-related employment figures presented so greatly underestimate the number of jobs in this sector? *(p. 3)*

- Employment statistics are based on covered employment data applied only to employees, not the self-employed
- The part-time, informal nature of fishing industry employment also contributes to under-reporting of jobs in that sector
- A direct survey approach could be used to collect better data on employment in fisheries and related sectors.

Commercial Fisheries

Why not quantify long term cumulative impacts on the fishing industry, including the *Rafeedie* decision? *(p. 4)*

- We were instructed to take the *status quo* situation, analyze that, and look forward.
- Data provided for commercial fishing covered the past 10 or 11 years; describes the current situation and indicate apparent trends.
- We did note that areas currently available to commercial fishing have been significantly truncated due to events like the *Rafeedie* decision and fishery management policies.
- Chapters on "Risk and Vulnerability" and "Qualitative Analysis of the Impacts of Proposed New Uses" discuss some of the implications for an already stressed Washington Coast commercial fishing industry.

Shellfish Aquaculture

Why weren't shellfish impacts throughout the entire food chain estimated? *(p. 6)*

- Beyond harvesting, processing and distribution of shellfish product, comprehensive data on additional processing, distribution and retailing is not readily available.
- A considerable amount of time and resources would be required to collect primary data with economic agents at all levels of the shellfish processing and distribution chain.
- Alternatively, a future study could conduct a consumer demand-side analysis of people's willingness to pay for "locally grown" shellfish.

Recreational & Commercial Fisheries

Eliminating a certain percentage of recreational or commercial fishing grounds south of Copalis, this will create economic loss for fishing industry. How does that trickle out into the broader community? *(p. 9)*

- The contribution of individual components of the commercial and recreational fishing sectors is greater than the sum of its parts. We identified income and jobs effects generated by the basic activities themselves *as well as* by other associated activities like seafood processing and non-fishing related tourism.
- Modeled economic effects tend to be linear and fail to identify where a "breaking point" might occur or when the critical mass of basic industry and associated support activities in a region is no longer locally viable.
- Tried to describe qualitatively some of the risks and vulnerabilities facing the industry in the two chapters of the report.

Additional Research and Study Needs

How did limited time or a lack of funding restrict the study in terms of what information could be generated? *(p. 10)*

- Lack of information or time available to collect it in sufficient detail biggest impediments.
- Time and resource constraints precluded our ability to quantify effects of processing, distribution and retailing of locally caught seafood products once they leave the primary processor.
- Similar restrictions on time prevented greater interaction with aquaculture growers and processors; more time may have increased participation by the sector.
- Limited information was available about specific geographic areas for future use, limiting the team's ability to quantify impacts from these uses.
- The recreation user surveys did not include out-of-state residents, so caused reliance on less-optimal data.

Questions & Next Steps