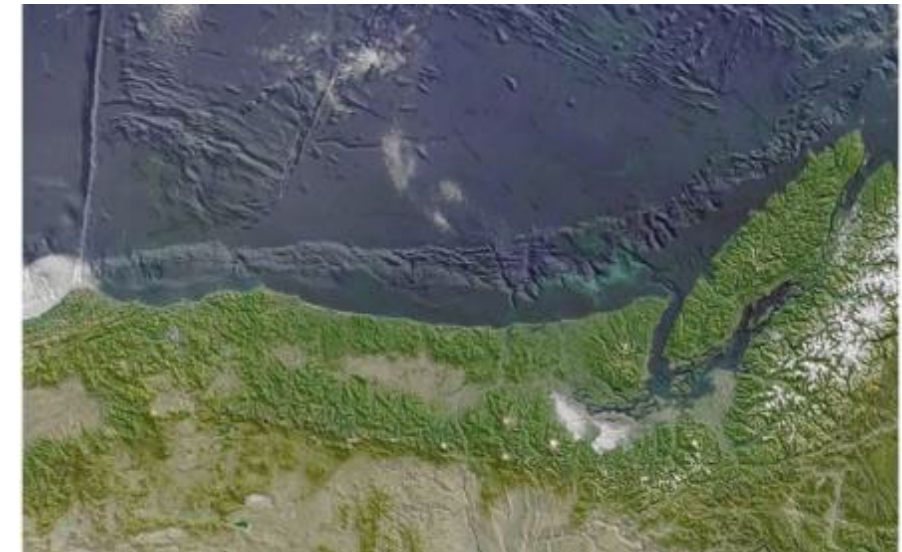


National Academy of Sciences Study

Impacts of Marine Renewable Energy on Oregon Ocean Resources

Committee Meeting #4



May 29, 2025

Andy Lanier

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Marine Affairs Coordinator

Oregon Coastal Management Program



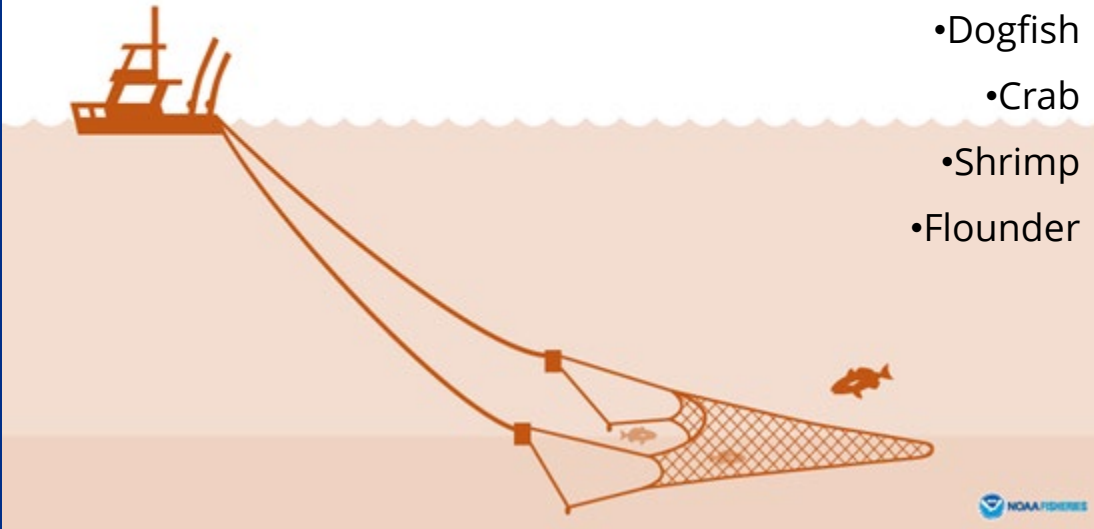
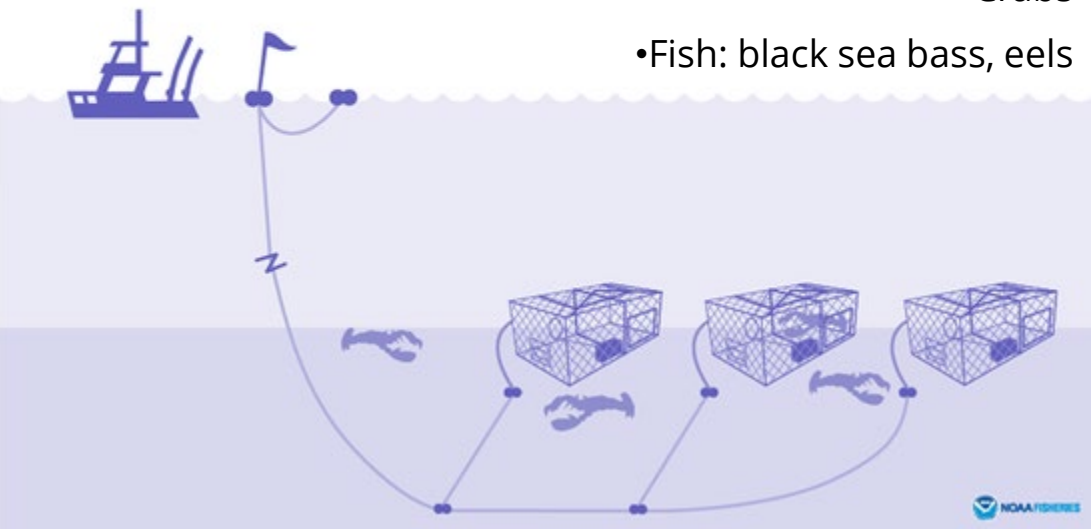
Impacts of MRE on Maritime Traffic & Fisheries

Key Points:

- Demands on ocean space are only growing
- Permanent structures in the water are a direct impact to compatible uses of ocean space
- Oregon has developed policies to reduce impacts and maximize compatible ocean uses



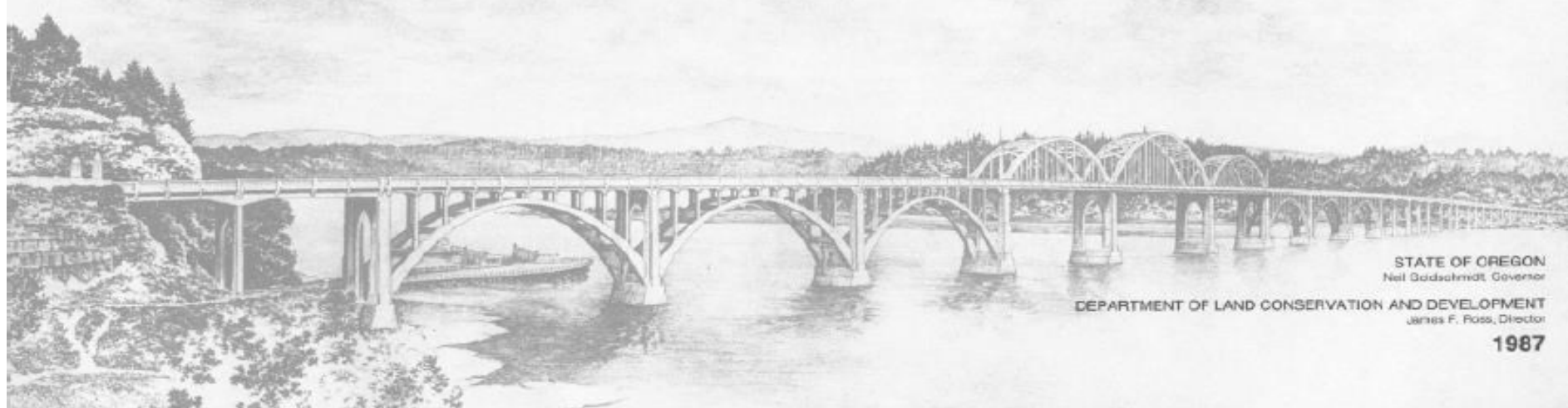
Context: Common Types of Fishing off Oregon

	Target Species
Bottom Trawling & Midwater Trawling  •Whiting •Red hake •Dogfish •Crab •Shrimp •Flounder	Traps & Pots  •Bottom-dwelling crustaceans and mollusks: Crabs •Fish: black sea bass, eels

<https://www.fisheries.noaa.gov/national/bycatch/fishing-gear-and-risks-protected-species>

Context: Marine Transportation

Depends upon the estuary management classification



Oregon has 3 Deep Draft Estuaries (Columbia, Yaquina Bay, Coos Bay)



THE OREGON COASTAL MANAGEMENT PROGRAM



Policies & Plans

- Coastal Goals,
- Territorial Sea Plan
- Estuary Planning
- Hazard Planning



Federal Consistency Authority

- Allows application of state policies to federal activities.



Networked Program

- A network of state and local partners that help implement the Program.

Housed within the
Department of Land Conservation and Development (DLCD)



Milestones for Ocean Resource Management

Program Adoption

- 1971 Oregon Coastal Conservation and Development Commission formed by legislature to develop coastal resource management plan.**
- 1973 SB 100 enacted by legislature, creating LCDC & DLCD and statewide land use program.**
- 1976 Coastal goals 16 – 19 adopted; Estuarine Resources, Coastal Shorelands, Beaches and Dunes, and Ocean Resources, based on OCC&DC recommendations.**
- 1977 NOAA approves Oregon Coastal Management Program.**

Phase I: Agency Coordination

- 1976-1979 Governor's OCS Oil and Gas Development Task Force**
- 1976-1987 Coastal Energy Impact Program**
- 1983-1987 Gorda Ridge Leasing Proposal & Task Force**
- 1985 Oregon Ocean Book published**
- 1985-1987 Territorial Sea Management Study**
- 1986 Governor's Territorial Sea Working Group**

Milestones for Ocean Resource Management

Phase II Ocean Planning

- 1987 Ocean Resources Task Force created by Oregon Legislature (SB 630)**
- 1989 Moratorium on OCS oil and gas leasing in PNW negotiated by White House, governors of OR and WA.**
- 1990 Oregon Ocean Resources Management Plan completed by Ocean Resources Task Force.**
- 1991 Oregon Ocean Resources Management Program enacted by Legislature, creates Ocean Policy Advisory Council, requires Territorial Sea Plan**
- 1994 Territorial Sea Plan adopted by LCDC as part of Oregon Coastal Management Program**

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Oregon Territorial Sea Plan

Founded on Goal 19: Ocean Resources

To conserve the long-term values, benefits, and natural resources of the nearshore ocean and the continental shelf.

To achieve this goal, the State of Oregon will:

- give **higher priority to the protection of renewable marine resources** than to the development of non-renewable ocean resources;
- support development of ocean resources that is **environmentally sound and economically beneficial** to coastal communities and the state;
- protect the **diversity of marine life**, the **functions** of the marine ecosystem, the diversity of marine and estuarine habitats, and the overall **health** of the **marine environment**; and
- seek the conservation of ocean resources within the larger marine region that is of **ecologic and economic interest** to the State of Oregon.

Ocean Program

State Agency Authorities and Responsibilities

Department of Agriculture

- oyster/shellfish leasing;
- regulates chemical use affecting shellfish;
- seafood-commodity commissions.

Dept. Land Conservation and Development

- Coastal Zone Management agency for Oregon;
- Ocean Program staff to Ocean Policy Advisory Council;
- administers Statewide Goal 19, Ocean Resources, others;
- oversees state-agency coordination requirements;
- administers federal consistency provisions in federal law.

Department of Environmental Quality

- state pollution control agency;
- regulates point discharge into marine waters;
- oil spill prevention, response, plans, other;
- approves dredge and fill permits;
- CERCLA trustee.

Dept. Geology & Mineral Industries

- regulates oil, gas, or mineral explore and extraction;
- advises DSL on geological/seismic survey permits;
- provides info on coastal hazards and processes.

Parks and Recreation Department

- administers Oregon beach law and "Ocean Shore;"
- regulates sea walls, rip-rap, pipeline, cable crossings;
- regulates removal of products and "marine growth;"
- provides coastal recreation opportunities;
- operates state parks that access beach and rocky shores.

Department of Fish and Wildlife

- enforces state fish and wildlife laws;
- regulates marine fisheries harvest;
- regulates intertidal harvest or collecting;
- protects marine mammals, seabirds, T & E species;
- "marine biological consultant"
- CERCLA trustee.

Department of State Lands

- public trust (beneath tidal and navigable waters);
- regulates removal - fill in waterways and wetlands;
- seafloor use lease (e.g. kelp harvest; oil / gas, cables, etc)

Oregon Marine Board

Regulates boating in Territorial Sea

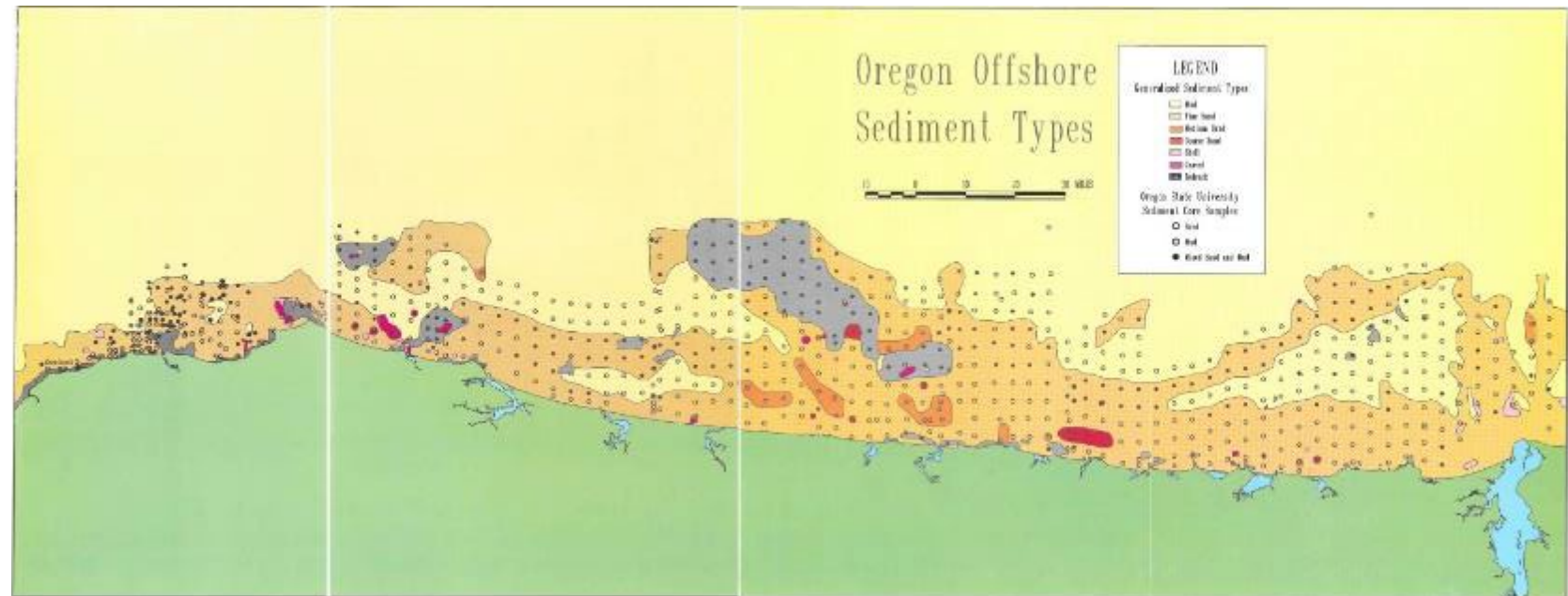
The Ocean Plan

Oregon's Ocean Resources Management Plan

The Oregon Ocean Resources
Management Task Force

January 1, 1991

Oregon's Ocean is but a small part of the vast Pacific Ocean, which is larger than any other single feature on Earth. Our ocean constitutes only part of its edge, but it is the edges of such systems that are the most productive, the most used, and the most vulnerable to disruption from human activities.



This map was generated by Oregon first Ocean Geographic Information System

The Ocean Plan

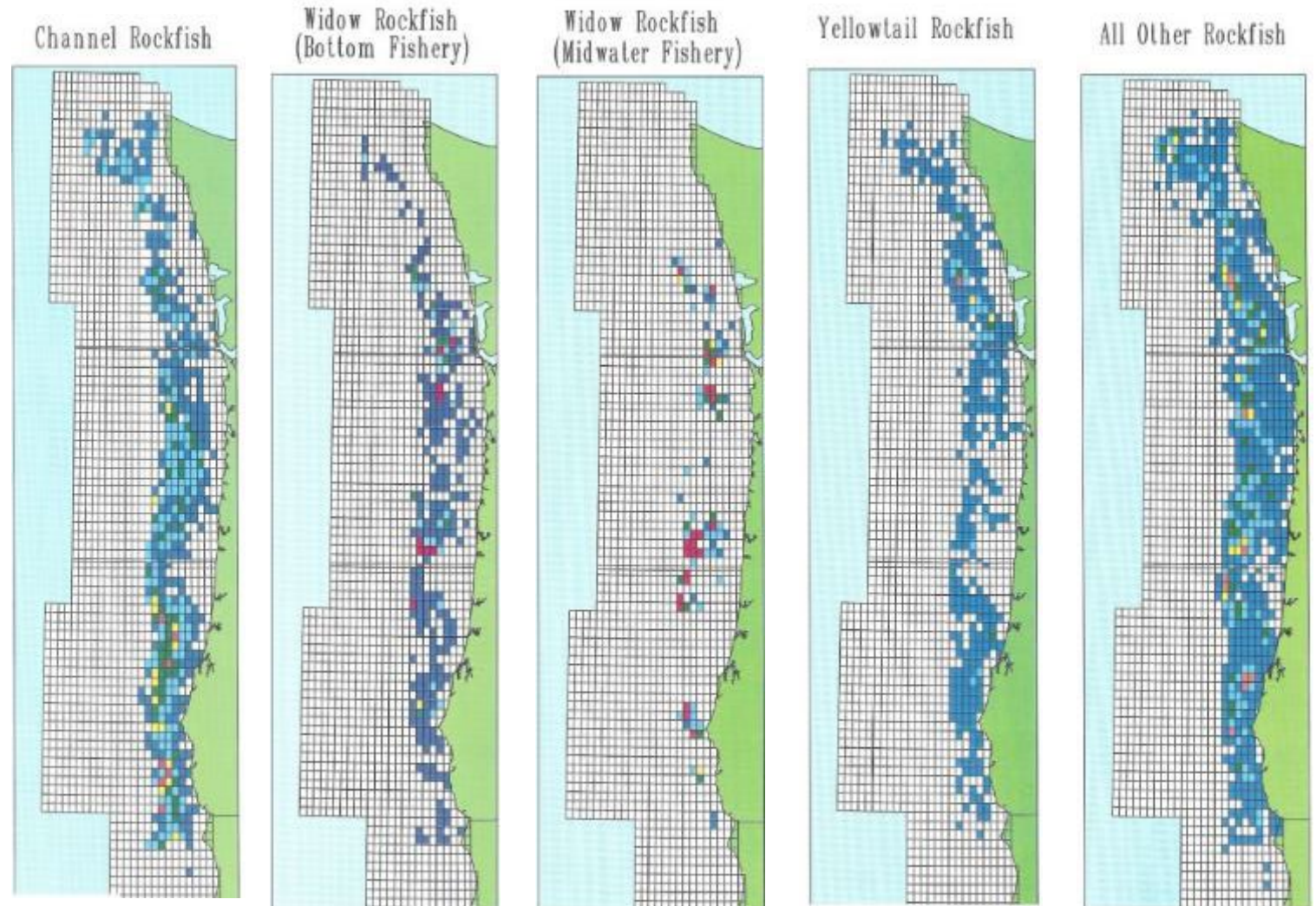
Rockfish Fishery Information

Oregon's Ocean Resources Management Plan

Fish Legend

Average Annual Catch 1986-1987

- 270,000 lbs. +
- 180,001 - 270,000 lbs.
- 90,001 - 180,000 lbs.
- 30,001 - 90,000 lbs.
- 100 - 30,000 lbs.



The Ocean Plan

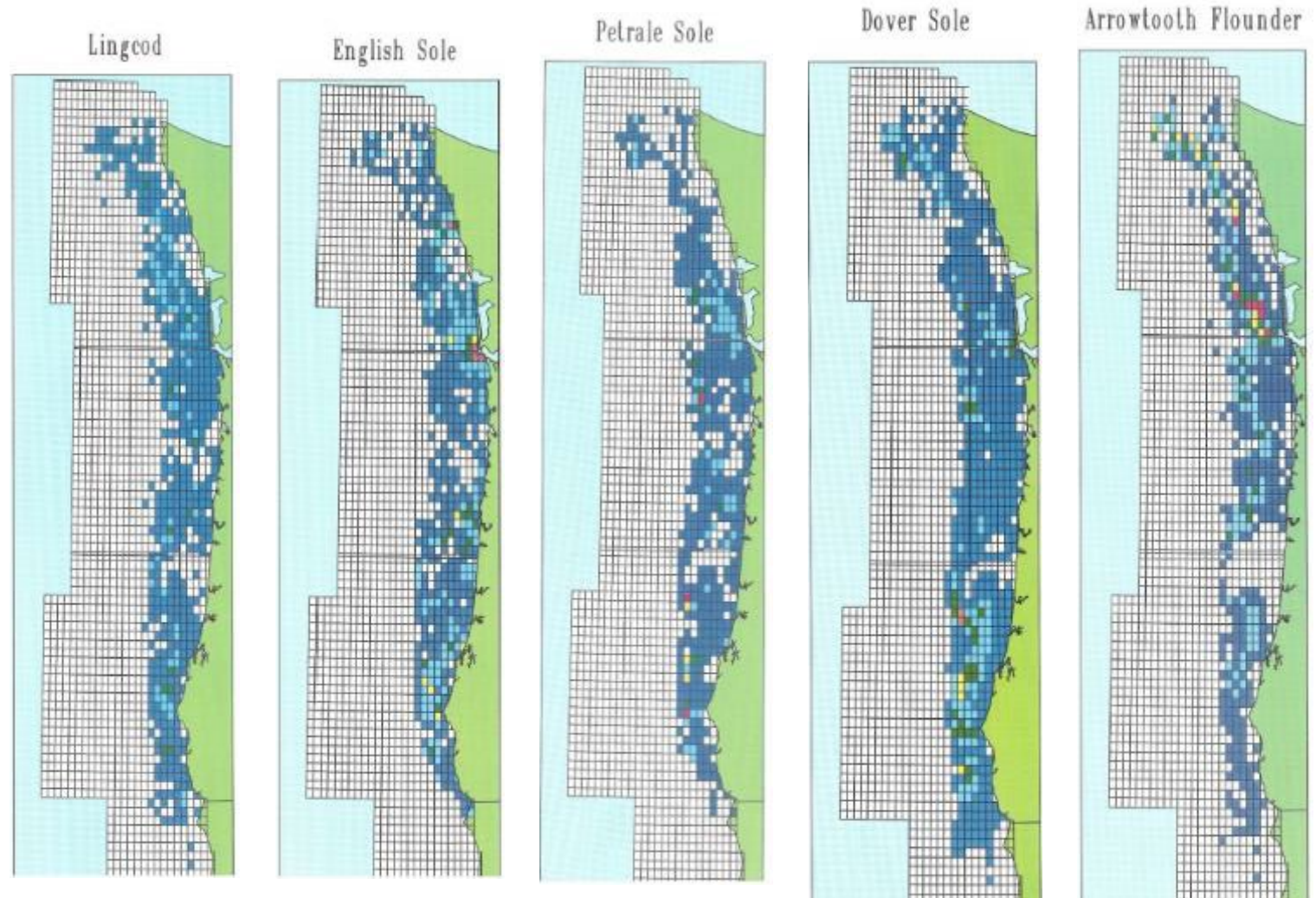
Flatfish & Lingcod

Oregon's Ocean Resources Management Plan

Fish Legend

Average Annual Catch 1986-1987

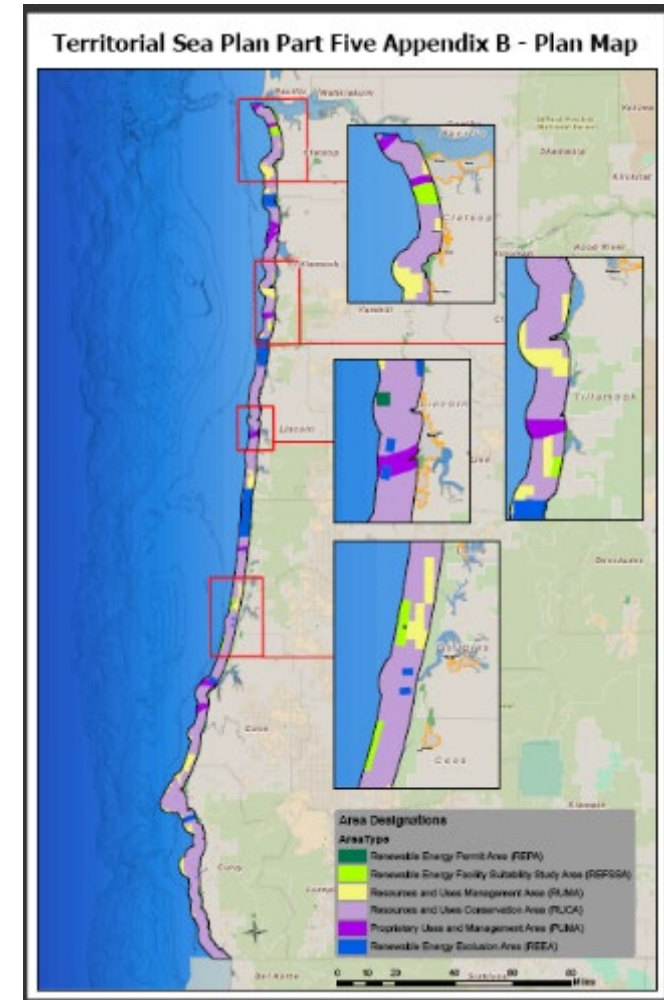
- 270,000 lbs. +
- 180,001 - 270,000 lbs.
- 90,001 - 180,000 lbs.
- 30,001 - 90,000 lbs.
- 100 - 30,000 lbs.



Milestones for Ocean Resource Management

Phase III - Ocean Planning... Continued

- 2000 – LCDC adopts Goal 19 amendments based on OPAC recommendations.
- 2000– LCDC adopts OAR 660-036-003 amending TSP to add Policy and Goals, amendments to TSP Part Three Rocky Shores Management Strategy, TSP Part Four: Uses of the Seafloor
- 2003 - ORS 196 amended to change OPAC composition and status
- 2008 – 2013... 2019 – TSP Part Five Amendment: Use of the Territorial Sea for the Development of Renewable Energy Facilities or Other Related Structures, Equipment or Facilities
- 2023 – TSP Part Three Amendment – Rocky Habitat Management Strategy
- 2023 – TSP Part Four Amendment: Uses of the Seafloor



Oregon Territorial Sea Plan

Contents:

Part One: Ocean Management Framework

- [A. History of Ocean Planning in Oregon](#)
- [B. The Ocean Policy Advisory Council](#)
- [C. Oregon's Territorial Sea](#)
- [D. Laws and Legal Authorities Affecting Ocean Management](#)
- [E. Ocean Management Agencies](#)
- [F. Plan Implementation](#)
- [G. Ocean Management Goals and Policies](#) (2001)

Part Two: Making Resource Use Decisions

- [A. Resources Inventory and Effects Evaluation](#)
- [B. Joint Review Panels \(JRPs\)](#)
- [C. Local Government Consultation](#)

Part Three: Rocky Habitat Management Strategy

- [A. The Rocky Habitat Management Strategy](#)
- [B. Oregon's Rocky Habitats](#)
- [C. Rocky Habitat Management](#)
- [D. Rocky Habitat Site Management Designation Standards and Practices](#)
- [E. Site-Based Proposal Overview](#)

Part Four: Uses of the Seafloor (2023)

[TSP Part Four - Uses of the Seafloor \(September 2023\)](#)

Part Five: Uses of the Territorial Sea

[For the Development of Renewable Energy Facilities or Other Related Structures, Equipment or Facilities\(2019\)](#)

Why amend the TSP for Marine Renewable Energy?

- ◎ Oregon has recognized and encouraged marine renewable energy development
- ◎ Oregon wants a plan for development that protects resources and balances existing uses
- ◎ Oregon wants to make sure we have a say in federal regulatory processes



Goal 19 Resources for Inventory and Assessment

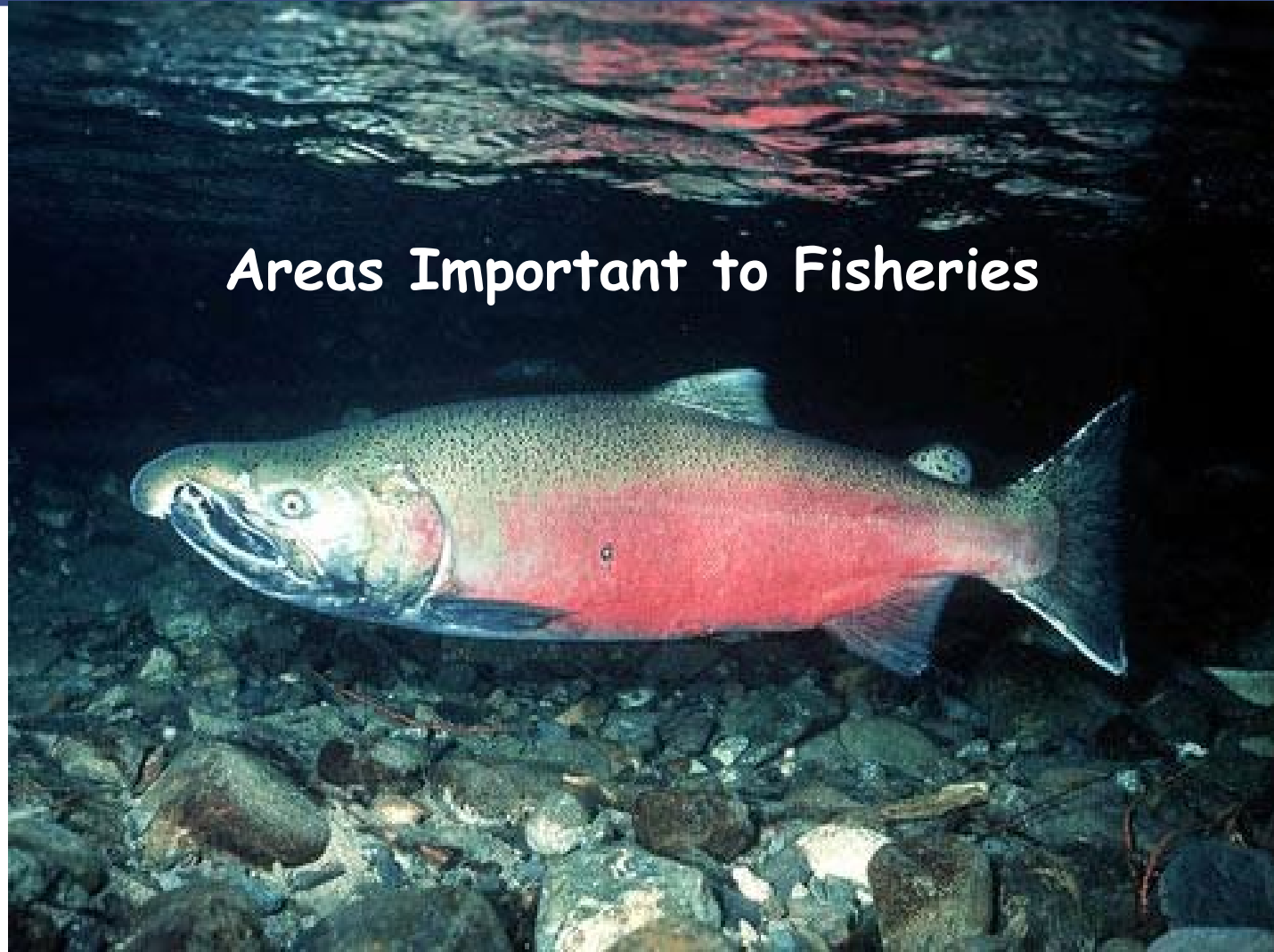


Ecosystem Function and Diversity



Goal 19 Resources for Inventory and Assessment

Areas Important to Fisheries

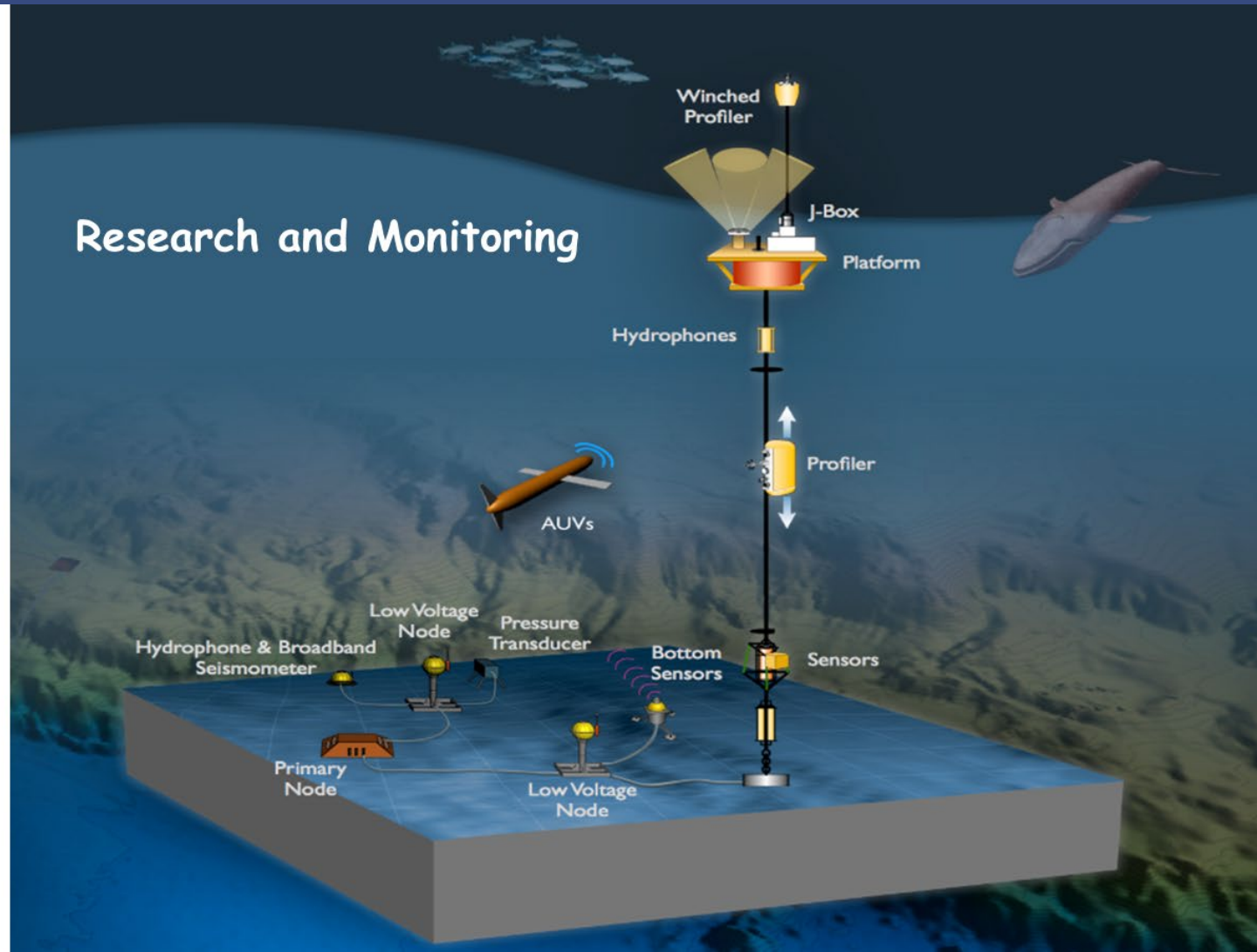


Goal 19 Resources for Inventory and Assessment

Beneficial Uses - Cable Vessel



Goal 19 Resources for Inventory and Assessment



Goal 19 Resources for Inventory and Assessment



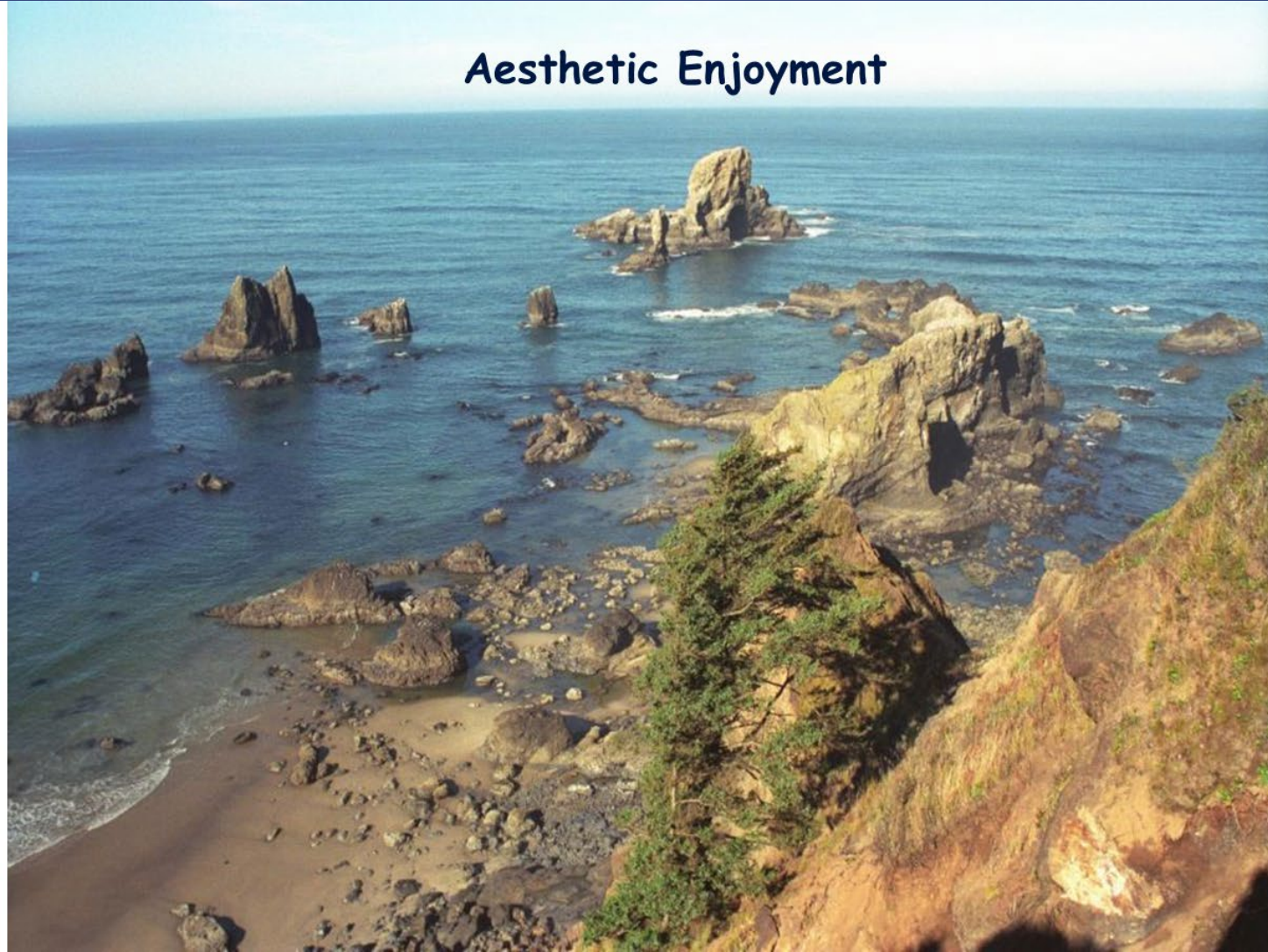
Goal 19 Resources for Inventory and Assessment



Navigation

Goal 19 Resources for Inventory and Assessment

Aesthetic Enjoyment



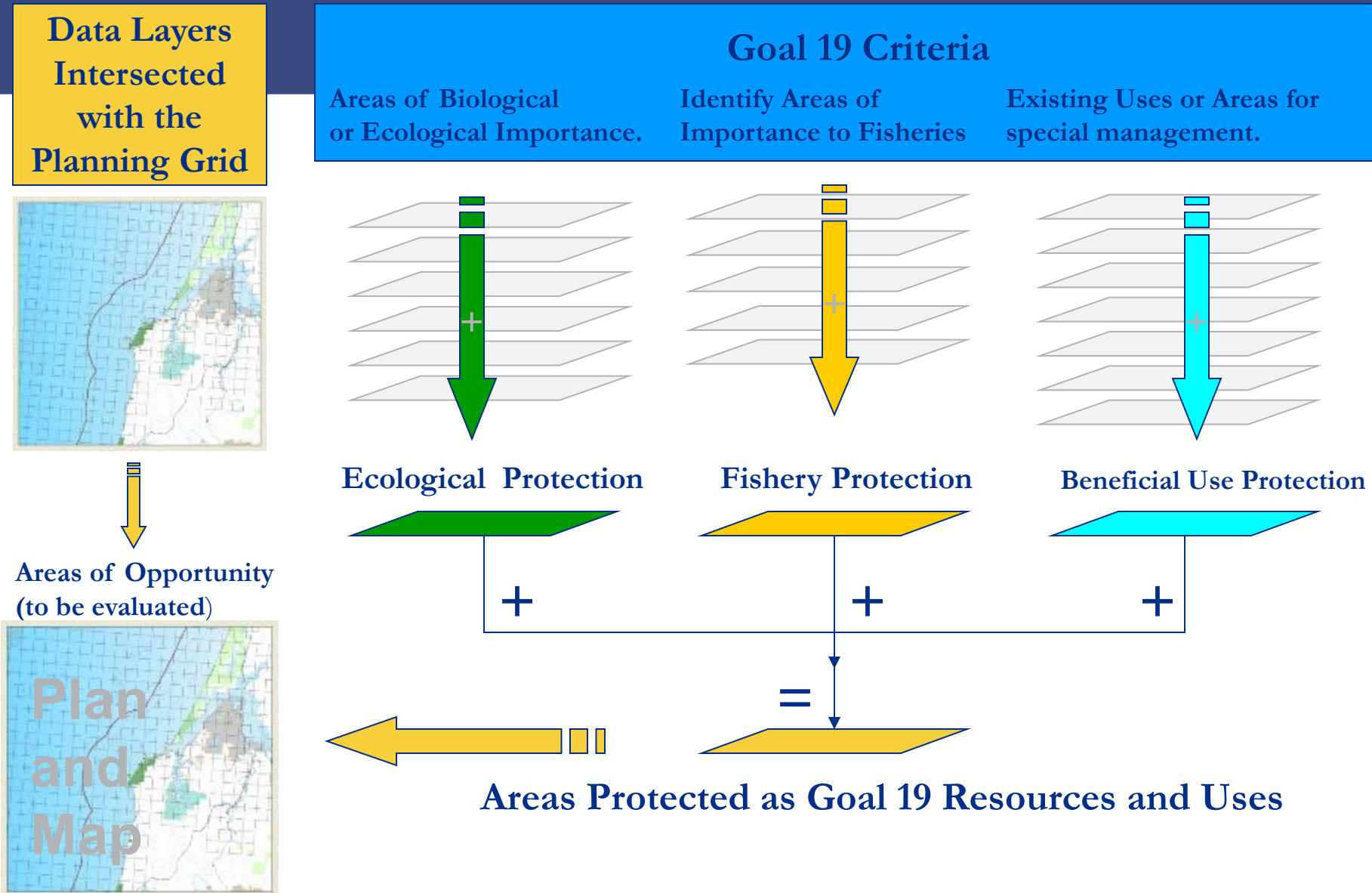
Plan for What?

US DOE Marine Hydrokinetic Energy Glossary

Attenuators
Pitching
Surging
Swaying
Heaving
Oscillating
Point Absorbing
Overtopping
Submerged Pressure
Differential



Geospatial Analysis for Areas Protected by Goal 19



Fisheries Uses and Value Mapping Inventory

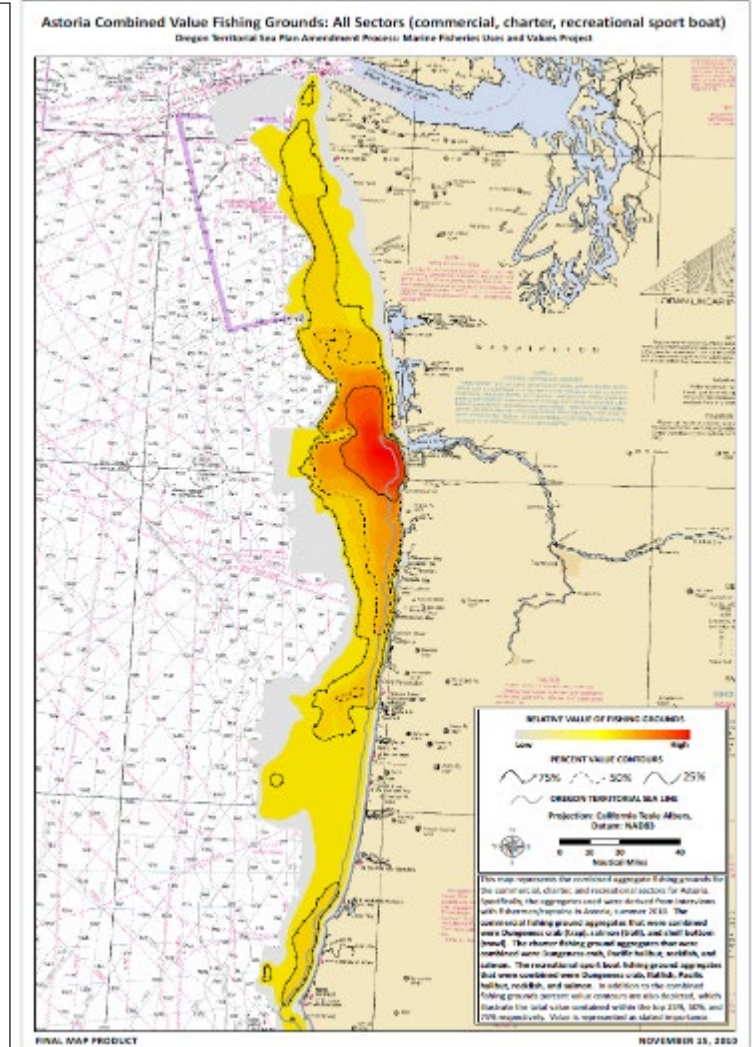
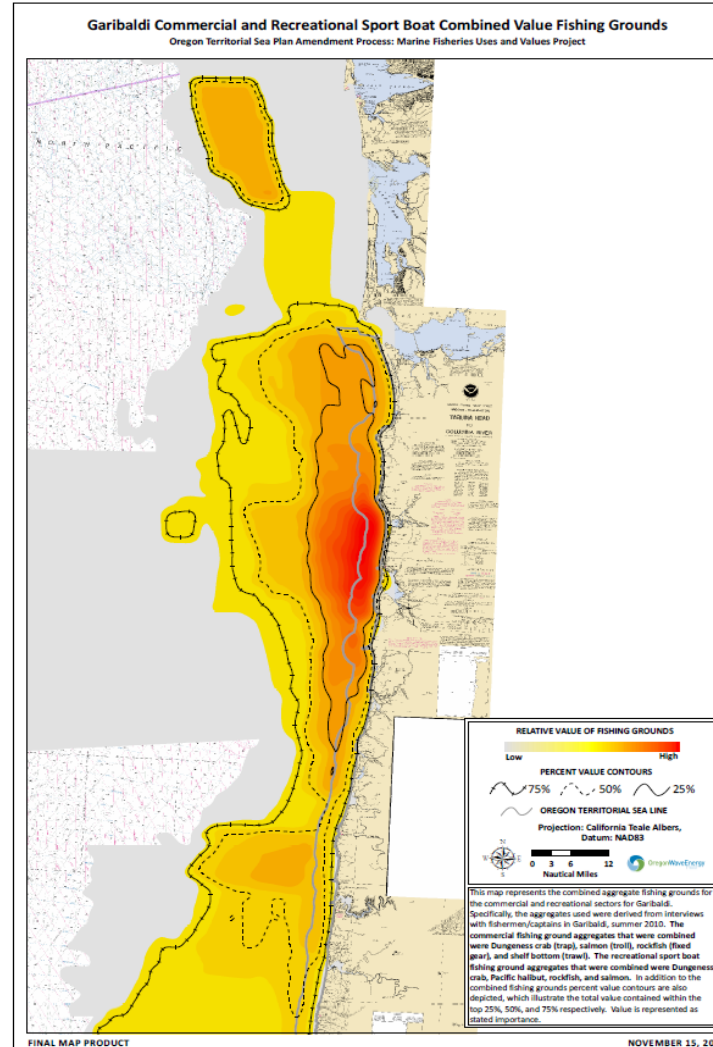
[GIS Webmap Service Link](#)

Charter and Recreational Fishing Maps:

- Astoria – Charter & Private Vessel
- Garibaldi – Private Vessel
- Newport - Charter & Private Vessel
- Depoe Bay – Charter & Private Vessel
- Florence – Charter & Private Vessel
- Salmon River – Private Vessel
- Charleston/Bandon/Winchester – Charter & Private Vessels
- Brookings/Gold Beach – Charter & Private Vessel

Commercial Fishing Maps (Multi-sector):

- Astoria - All Sector Map
- Garibaldi - All Sector Map
- Newport - All Sector Map
- Depoe Bay - All Sector Map
- Florence - All Sector Map
- Bandon, Charleston/Coos Bay, Reedsport/Winchester Bay - All Sector Map (SOORC)
- Port Orford – All sector Map
- Brookings & Gold Beach - All Sector Map



PART FIVE PLAN MAP AREAS

Renewable Energy Exclusion Area (REEA)	Proprietary Use and Management Area (PUMA)	Resources and Uses Conservation Area (RUCA)	Resources and Uses Management Area (RUMA)	Renewable Energy Facility Suitability Study Area (REFSSA)	Renewable Energy Permit Area (REPA)
Special Management Areas designated by statute and OAR	Areas with authorized uses and special management designations under Goal 19	Areas with important, sensitive, or unique Goal 19 Resources and Uses	Areas with important or significant Goal 19 Resources and Uses	Areas of least conflict with Goal 19 Resources and Uses	Areas of existing MREC permits
MRE applications will not be accepted within these areas	MRE applications will not be accepted unless legally permissible, comply with the authorized use and area standards.	MRE applications must demonstrate no reasonably foreseeable adverse effects on inventoried marine resources and uses.*	MRE applications must demonstrate no significant adverse effects on inventoried marine resources and uses.	MRE applications must comply with TSP Part Five Sections B and C , general standards, and the applicable regulatory and proprietary requirements of state and federal agencies.*	Delineated sites with existing authorization for the development of MRE testing, research or facilities.

Visual Resource Area Overlay

Marine Recreation Area Overlay

Screening standards applied to all areas

Higher

Permit Review Standards

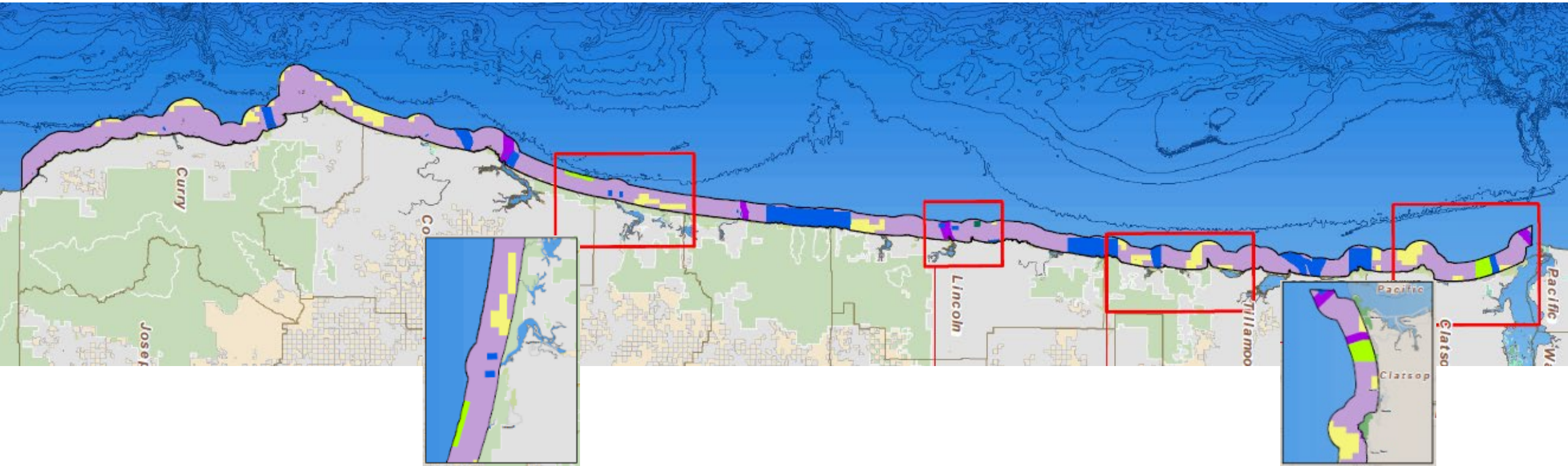
Lower

Already permitted.

TSP Part Five Outcomes

The state has established policy for the review and evaluation of any potential MRE project off Oregon.

Since adoption in 2019, there has not been a single commercial project proposed offshore Oregon, except in federal waters for the PacWave facility.





DLCD

Department of
Land Conservation
& Development

May 29, 2025

Andy Lanier, Andy.Lanier@dlcd.Oregon.gov
Marine Affairs Coordinator

“The conservation of all ocean resources is the principle that guides Oregon’s ocean resources management. This principle seeks to protect the integrity of marine ecosystems while giving priority to the protection and wise use of renewable resources over nonrenewable resources.”

The Ocean Plan, 1985