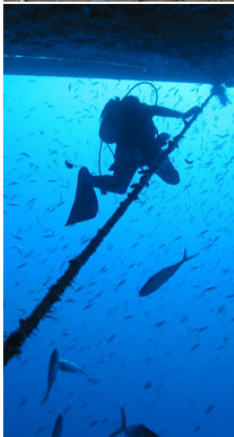




NOAA
FISHERIES

NOAA Fisheries Office of Aquaculture

Michael Rubino
Pacific States Marine Fisheries Commission Meeting
Boise, ID
August 20, 2018

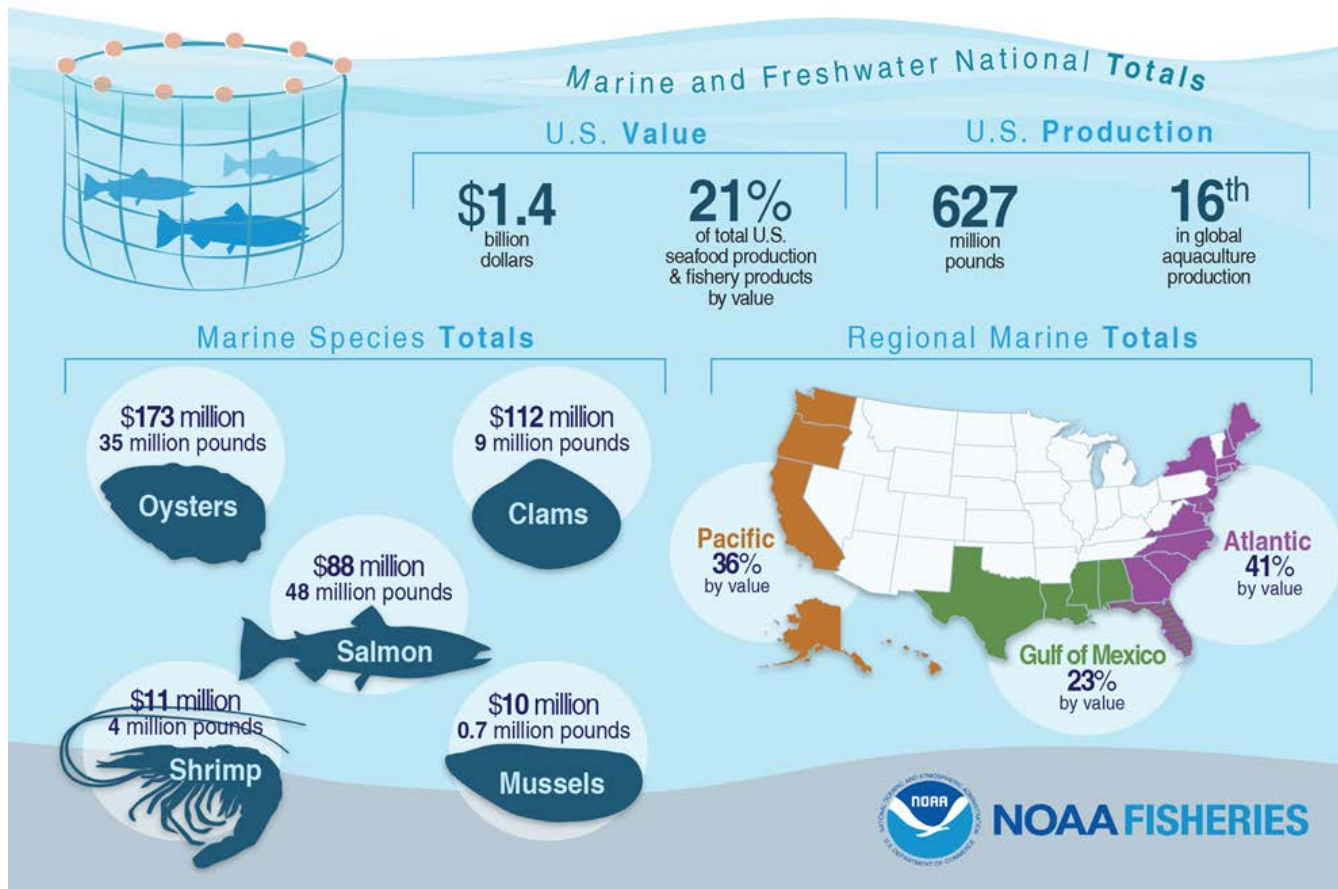


Take-away Messages

- Regulatory streamlining and aquaculture/seafood production are NOAA and DOC priorities
- Stakeholders ask NOAA to help expand seafood farming, overcome constraints
 - Fishing and aquaculture: spectrum of technologies to produce seafood
 - Aquaculture, done right, benefits fisheries, communities and the environment
- NOAA's actions
 - Regulatory streamlining
 - Regional partnerships
 - Research and development, science
- Pacific region is a leader in aquaculture

Pacific Coast a Leader in U.S. Aquaculture Production

2015 Aquaculture Production Highlights



Pacific Coast Aquaculture

- Oysters
- Mussels
- Seaweed
- Salmon
- Marine Fish
- Abalone



Department of Commerce and NOAA Fisheries Priorities

DOC Strategic Plan 2018-2022:

Increase Aquaculture Production

- 1 stop shop for federal approval of marine aquaculture permits
- Support research to advance marine aquaculture

NOAA Fisheries FY18 Priorities:

- Regulatory streamlining
- Commercial scale pilot projects with coastal communities and industry
- Research to remove production bottlenecks



Aquaculture as a Congressional Priority



- NOAA Fisheries and Sea Grant both received increases for aquaculture in Fiscal Year 2018 budget appropriation from Congress.
- Congressional funding for regional pilot projects and off-bottom oysters.

Advancing the Quality and Understanding of American Aquaculture (AQUAA) Bill



Federal waters

- Remove aquaculture from MSA definition of fishing
- 25 year permit issued by NOAA
- NOAA lead agency, coordinates federal permitting
- Regional NEPA analyses led by NOAA
- Existing laws and requirements apply (e.g., Army Corps, EPA, BOEM)
- Apply existing environmental requirements
- Monitoring, reporting, inspection, and enforcement requirements
- Mechanism for state “opt out”

Authorizes \$60m+ R&D program for ALL marine aquaculture



Federal Permit Process for Marine Aquaculture, in Federal Waters, Under Current Law, and AQUAA Bill

Part 1: Applies to all scenarios under “one-stop permit shop” in Department of Commerce Strategic Plan, 2018-2022

NOAA will compile information on federal permit requirements for all federal agencies.

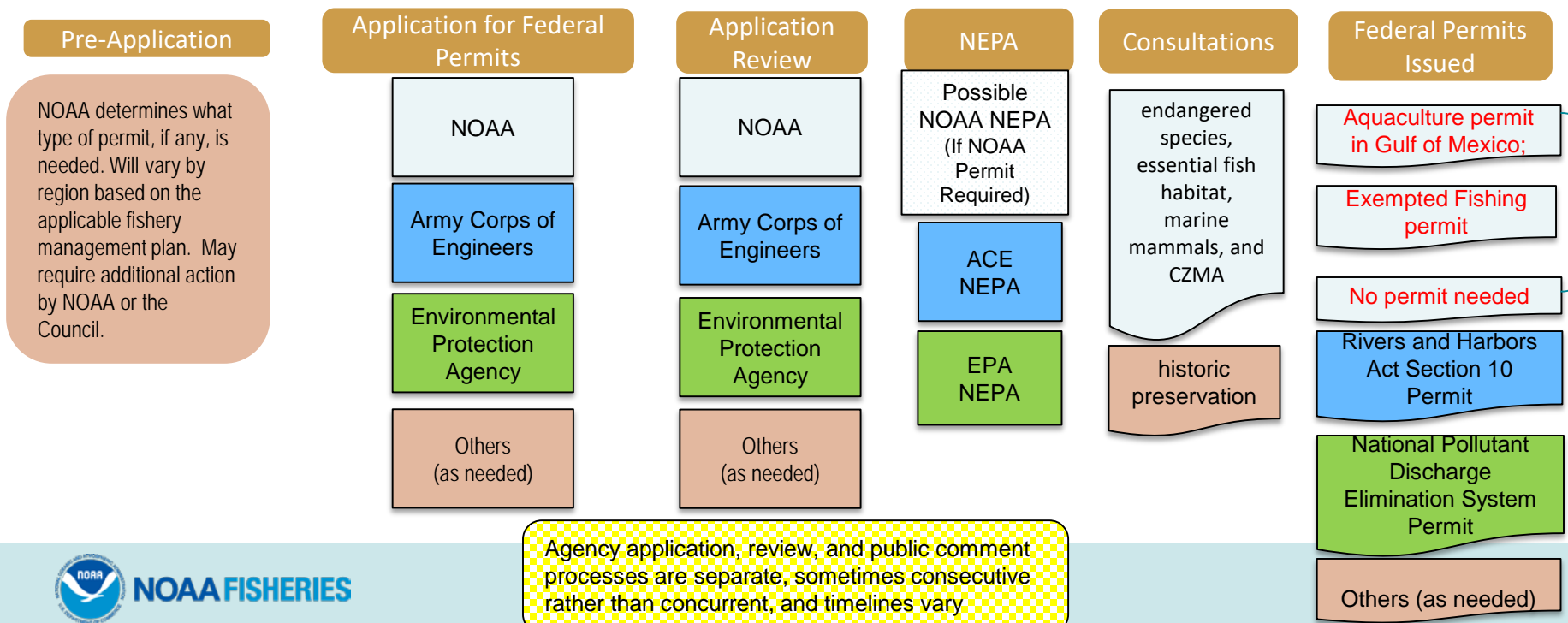
NOAA will make the information on federal permit requirements for all agencies available to applicants and the public

NOAA could provide opportunity for potential applicants to meet with all federal agencies at one time to discuss proposed project prior to submission of permit applications

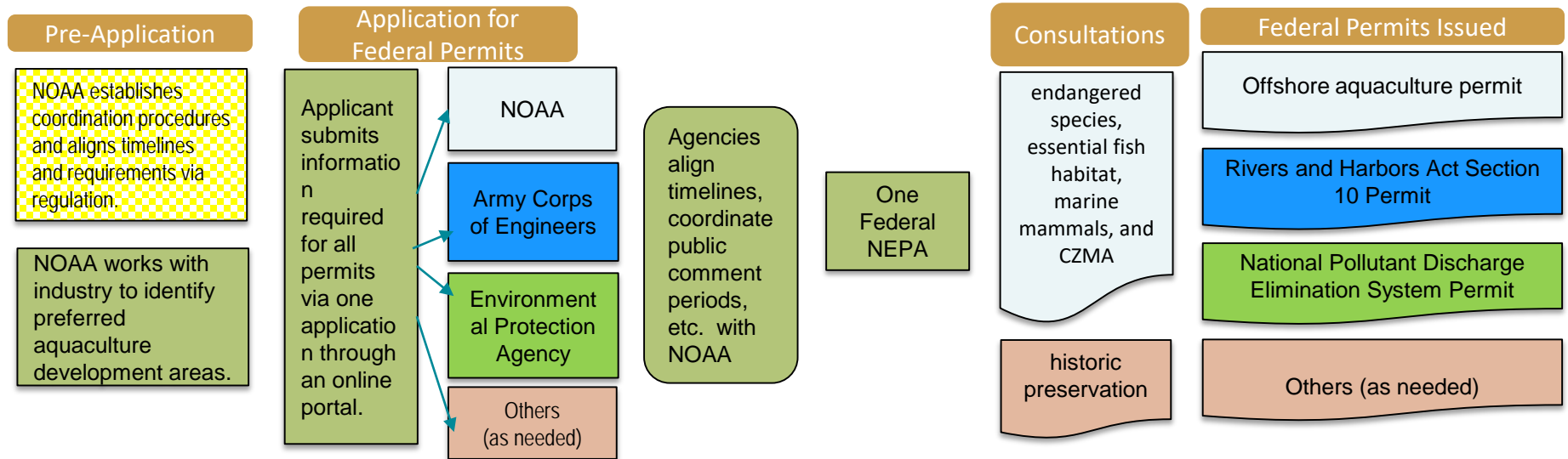
NOAA will develop additional models and tools for proper siting; continue to conduct siting studies; prepare additional programmatic analyses to meet NOAA’s requirements under the National Environmental Policy Act; and conduct additional programmatic consultations required under the Endangered Species Act, Essential Fish Habitat provisions of the Magnuson-Stevens Fishery Conservation and Management Act.

NOTE: In the following flowcharts, “Others” refers to issuance of a private aid to navigation (Coast Guard) and Bureau of Ocean Energy Management approval (for projects associated with Outer Continental Shelf energy activities). Additionally, these diagrams are for federal waters. While many aspects could remain the same for state waters, coordination with state agencies would be critical.

Part 2: Current process (NOAA role under Magnuson-Stevens Fishery Conservation and Management Act varies by region and type of project. NOAA authority for permitting marine aquaculture through MSA currently under litigation)



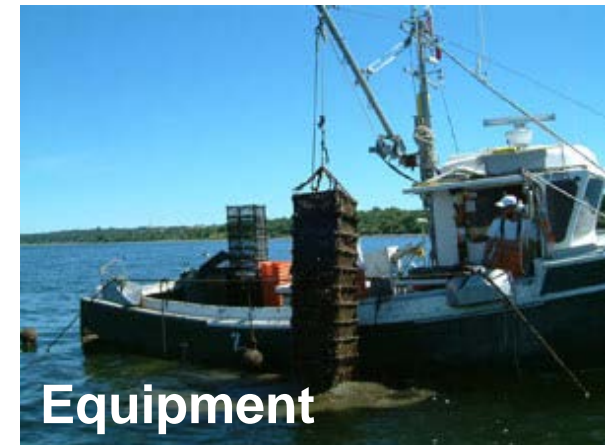
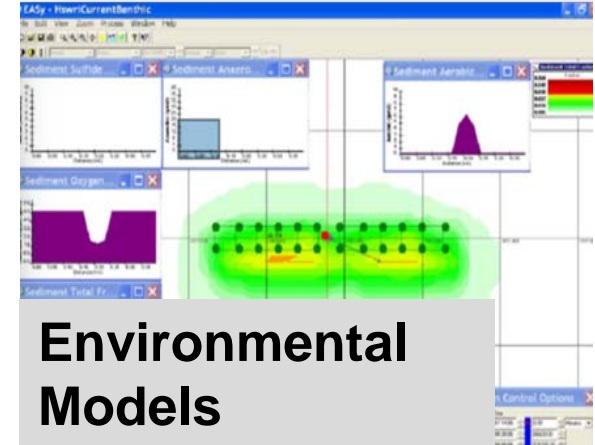
What Changes with the AQUAA Bill?



Part 4: AQUAA Bill

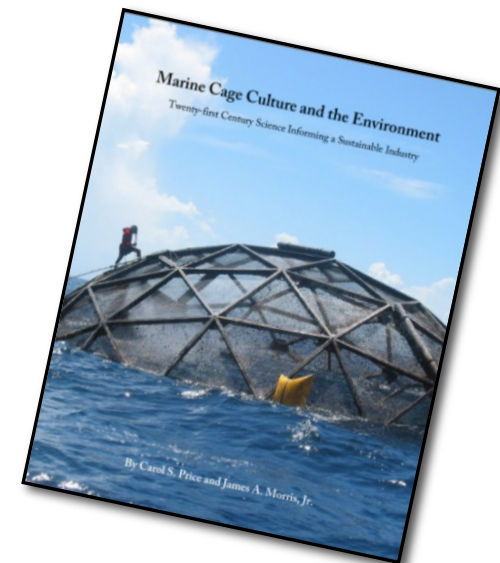
NOAA would be designated as the lead coordinating agency and given new permitting authority to issue marine aquaculture permits. Federal agencies may delegate authority to another agency if not precluded by regulation or other statute.

NOAA: Research and Innovation to Support Sustainable Aquaculture



Science for Management

- Regional Siting Models
- Water Quality/Benthic Models
- Genetic Effects of Escapes - OMEGA model
- Ecosystem Services of Shellfish Farming
- Effects of Ocean Acidification, Changing Ocean Conditions
- Pathogen and Parasite Vectors



R&D, Technology Transfer, and Extension Examples

- Shellfish Hatchery Techniques, Algae Starters, Probiotics
- Sablefish and Yellowtail Farming
- Marine Feed Ingredients
- Abalone and Native Oyster Restoration
- Fisheries Enhancement
- Seaweed Farming
- Genetics



Economics and Market Analyses Underway

- Evaluation of seafood price and market effects of increasing aquaculture production in Gulf of Mexico
- Economics of sablefish aquaculture and price and market effects of sablefish culture on sablefish markets

Partnerships and Pilot Projects

- Largely funded by private sector
- NOAA grants leverage private, state, and foundation funding (SK, SBIR, Sea Grant, Commissions)
- NOAA contributes science, siting, regulatory streamlining, tech transfer, extension



Stakeholder Engagement

- National Shellfish Initiative with associated state shellfish initiatives in e.g., WA, AK, CA, CT, RI, NC and Gulf
- Gulf Seafood Roundtable, Gulf stakeholder trips to Maine
- Stronger America Through Seafood campaign effort
- Coastal Ecosystem Learning Centers
- Work with aquariums and other outreach efforts



Questions?

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Regional Aquaculture Coordinators:

California: Diane Windham

Wash/Oregon: Laura Hoberecht

Alaska: William Hines



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