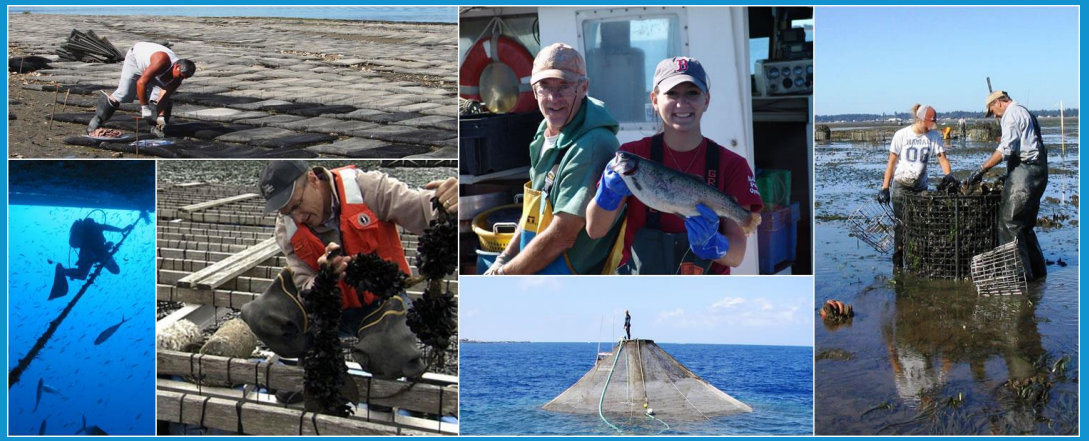
NOAA FISHERIES

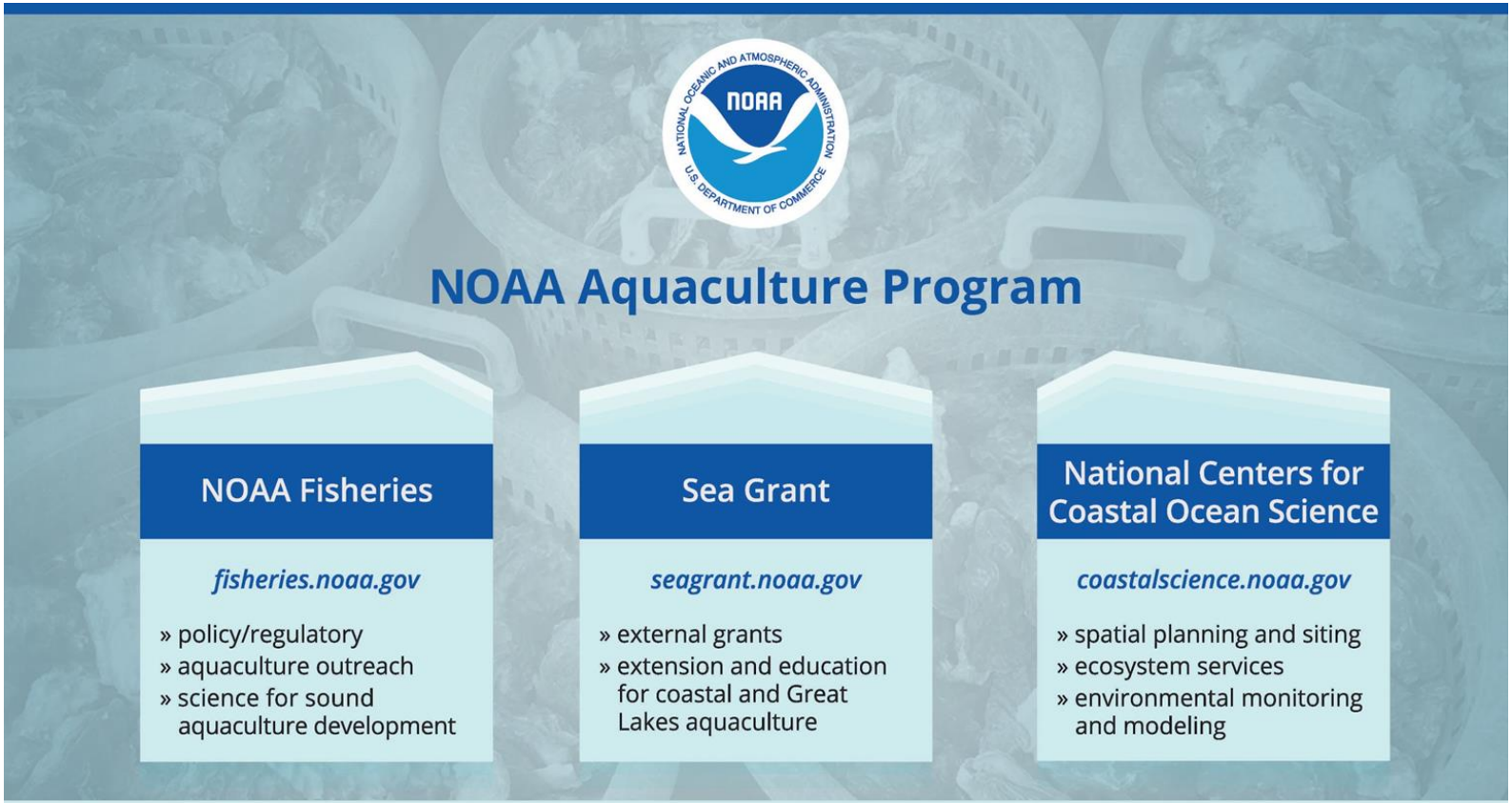
Office of Aquaculture

Overview NOAA's role in Aquaculture

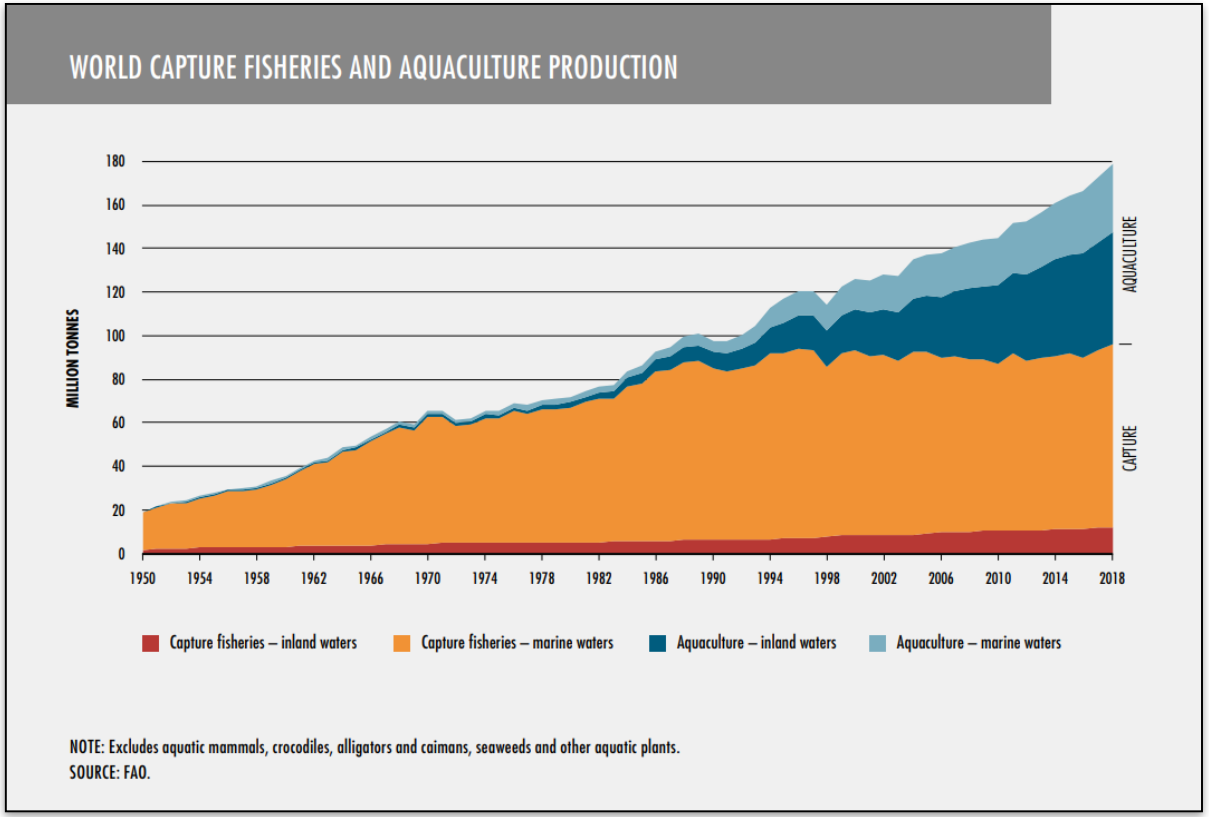


Dan Tonnes, Oregon & Washington Aquaculture Coordinator
NOAA Fisheries West Coast Region (Dan.Tonnes@noaa.gov)

NOAA Aquaculture Program



Aquaculture is Critical to Global Food Supply



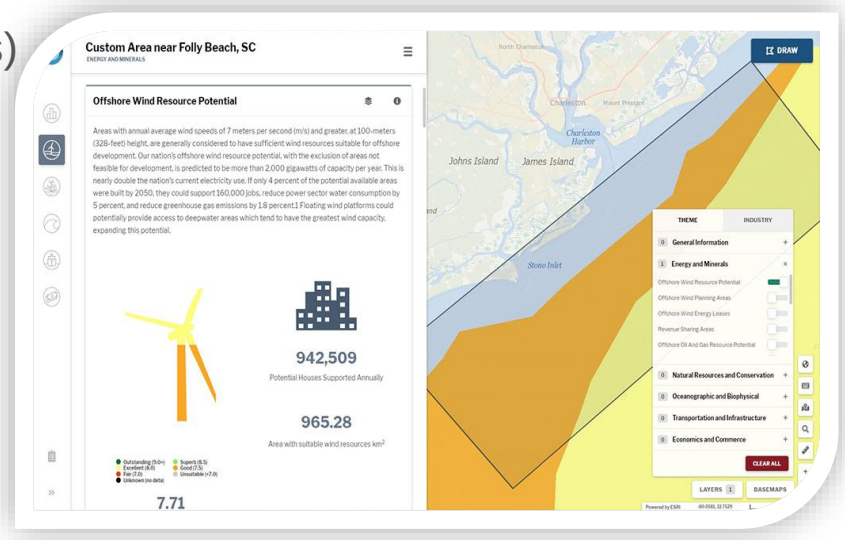
Global demand for seafood growing: we will need an additional 40 million tons in 20 years.

Seafood security: ~70% of seafood Americans eat is imported, ½ of that from aquaculture.

Future seafood supply growth will come from aquaculture.

Science for Management

- Ocean Reports (siting and spatial analysis)
- Water Quality/Benthic Models
- Genetic Effects of Escapes
- Disease and Biosecurity Research
- Aquaculture Ecosystem Services
- Socioeconomics Research
- Engineering Guidance



marinecadastre.gov/oceanreports

Science for Production and Technology Transfer

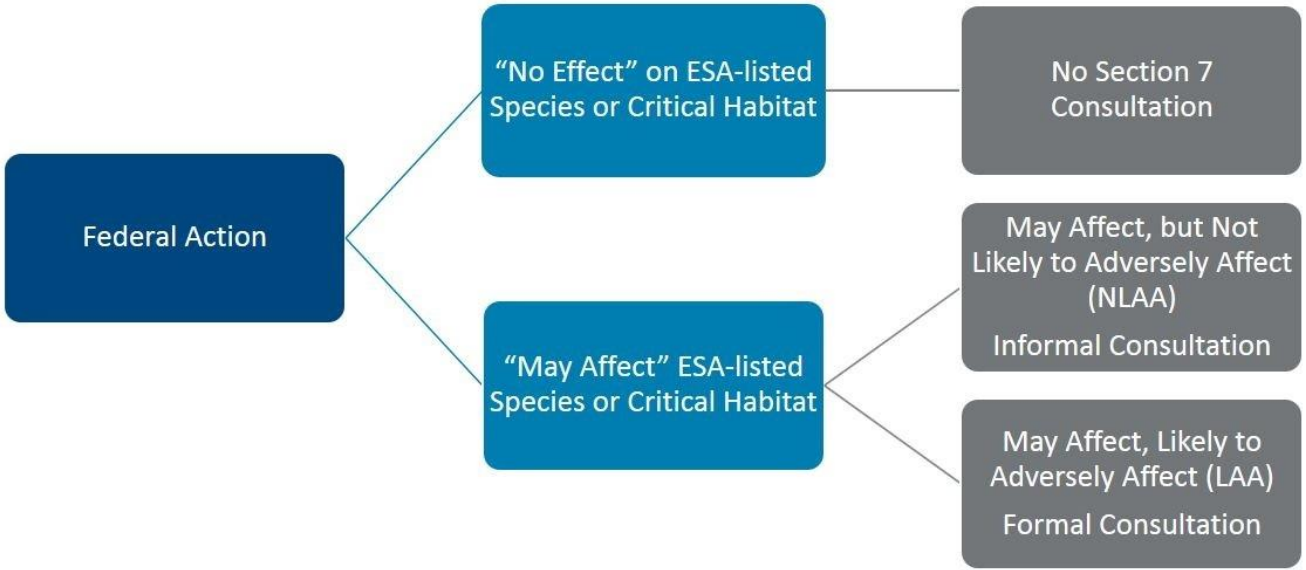
- Shellfish hatchery techniques, algae starters, probiotics
- Sablefish farming
- Marine feed ingredients
- Abalone and native oyster restoration
- Seaweed farming
- Selective breeding

NOAA Aquaculture Library

Fact Sheets:

- Antibiotic Use in Finfish
- Aquaculture and Environmental Interactions
- Aquaculture Provides Beneficial Ecosystem Services
- Climate Resilience and Aquaculture
- Disaster Assistance for Fisheries
- Marine Aquaculture in the U.S.
- Potential Risks of Aquaculture Escapes
- Regulation of Marine Aquaculture
- Sustainable Aquaculture Feeds and Fish Nutrition

NOAA Fisheries Regulatory Role in Aquaculture (ESA & EFH)



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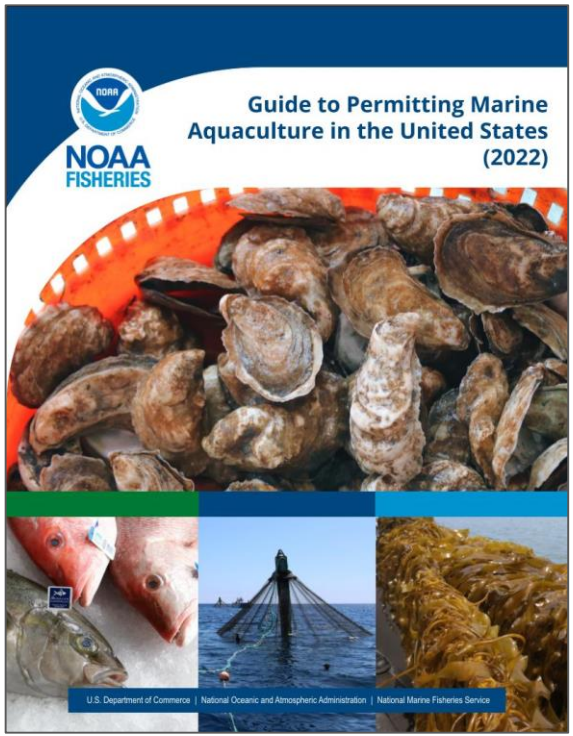
New Aquaculture Permitting Guide



- Primary federal permits
- Overview of the federal permitting process
- Other federal agency authorizations and processes
- Federal consultation and review requirements
- Regulations for operations

Washington Shellfish Aquaculture Permitting Process

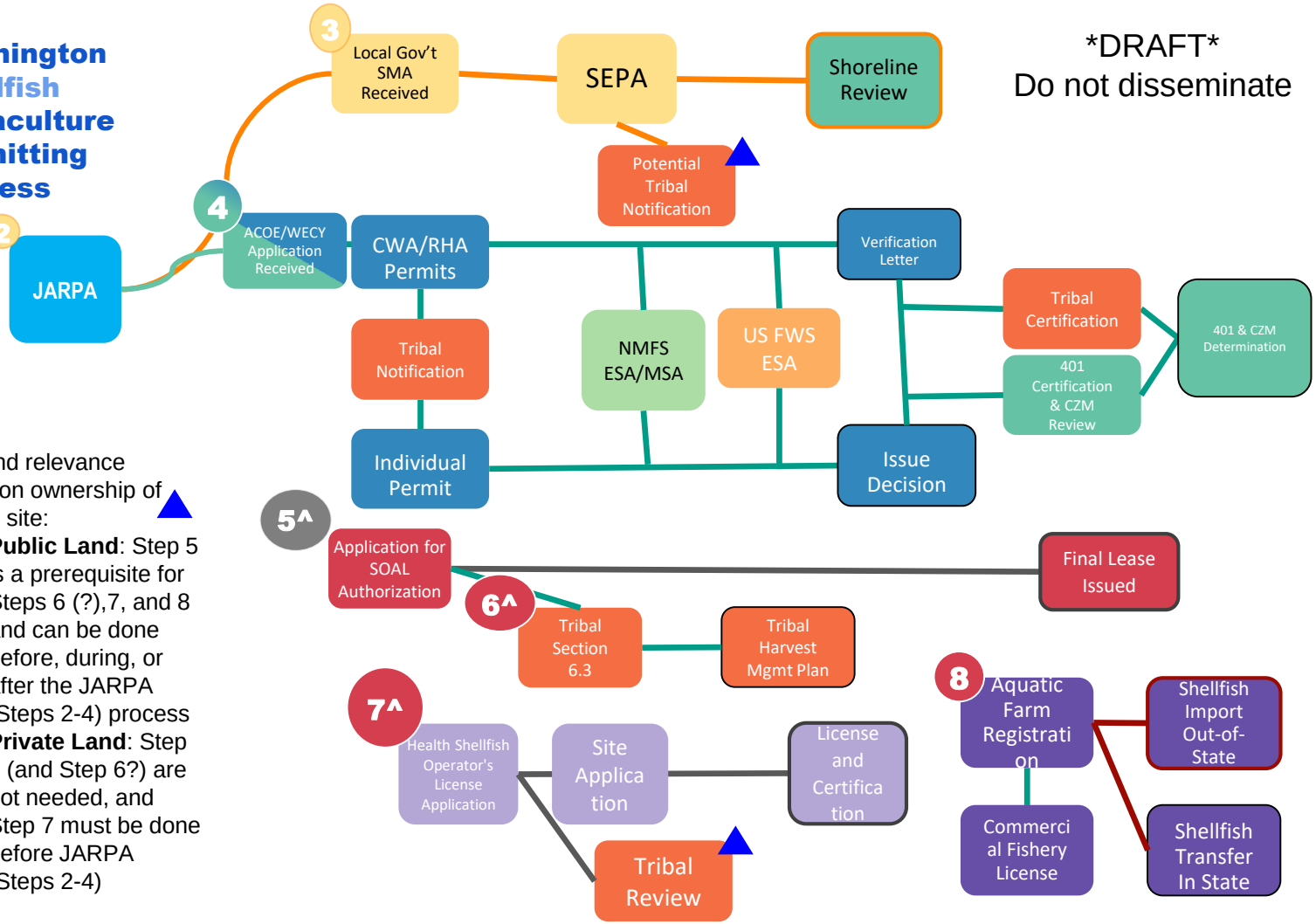
DRAFT
Do not disseminate

Before you start:

1. Contact appropriate DNR land manager to determine ownership of proposed site (A)
2. Check water quality at proposed site (B)
3. Contact:
   - Your local government
   - Washington tribes / NWIFC (tribal interest determination) (C)
1. Review seeding restrictions and requirements (D)

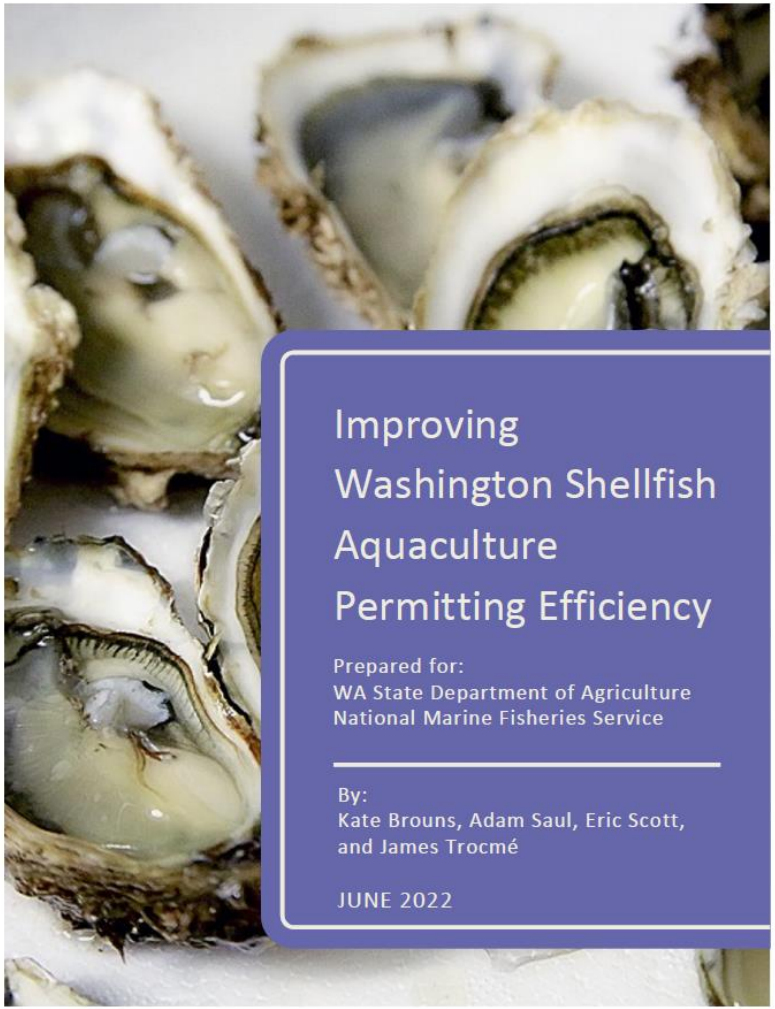
WDNR
Tribal Gov't*
USFWS
Local GOV
NMFS
Ecology
ACOE
WDOH*
WDFW*

*Requires permits for each parcel

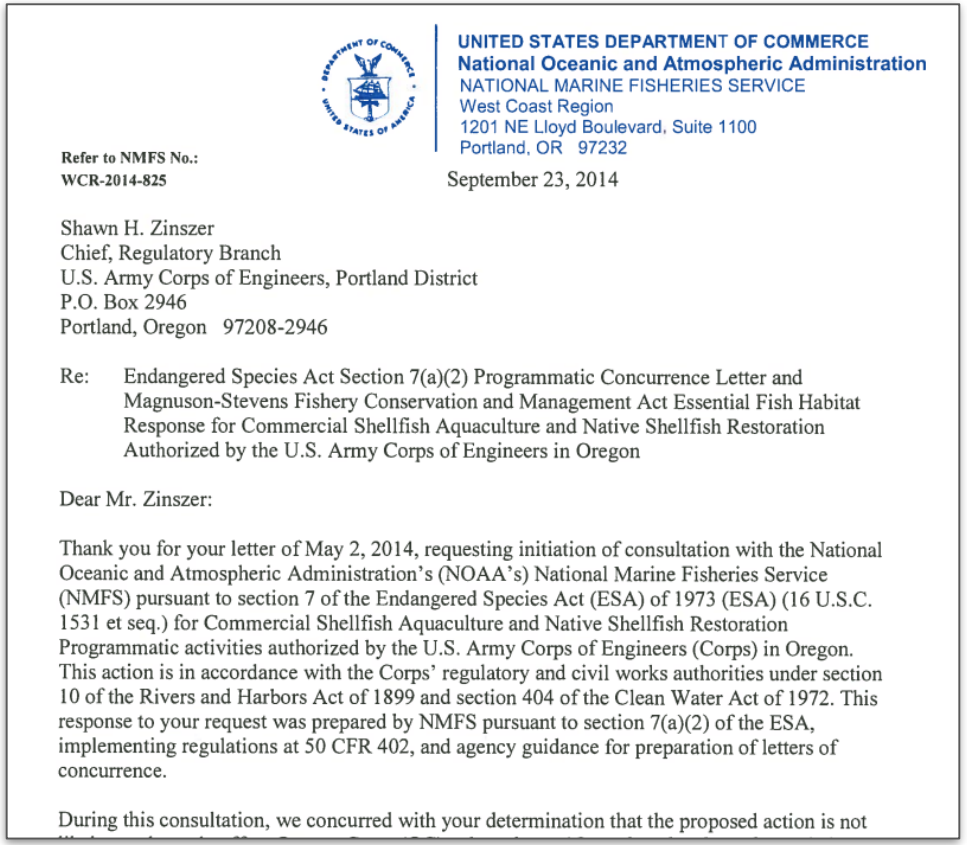


^Order and relevance depends on ownership of proposed site:

- **Public Land**: Step 5 is a prerequisite for Steps 6 (?),7, and 8 and can be done before, during, or after the JARPA (Steps 2-4) process
- **Private Land**: Step 5 (and Step 6?) are not needed, and Step 7 must be done before JARPA (Steps 2-4)


Improving
Washington Shellfish
Aquaculture
Permitting Efficiency
Prepared for:
WA State Department of Agriculture
National Marine Fisheries Service
By:
Kate Brouns, Adam Saul, Eric Scott,
and James Trocmé
JUNE 2022

Programmatic ESA/EFH Consultation for Oregon shellfish aquaculture



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
1201 NE Lloyd Boulevard, Suite 1100
Portland, OR 97232

Refer to NMFS No.:
WCR-2014-825

September 23, 2014

Shawn H. Zinszer
Chief, Regulatory Branch
U.S. Army Corps of Engineers, Portland District
P.O. Box 2946
Portland, Oregon 97208-2946

Re: Endangered Species Act Section 7(a)(2) Programmatic Concurrence Letter and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for Commercial Shellfish Aquaculture and Native Shellfish Restoration Authorized by the U.S. Army Corps of Engineers in Oregon

Dear Mr. Zinszer:

Thank you for your letter of May 2, 2014, requesting initiation of consultation with the National Oceanic and Atmospheric Administration's (NOAA's) National Marine Fisheries Service (NMFS) pursuant to section 7 of the Endangered Species Act (ESA) of 1973 (ESA) (16 U.S.C. 1531 et seq.) for Commercial Shellfish Aquaculture and Native Shellfish Restoration Programmatic activities authorized by the U.S. Army Corps of Engineers (Corps) in Oregon. This action is in accordance with the Corps' regulatory and civil works authorities under section 10 of the Rivers and Harbors Act of 1899 and section 404 of the Clean Water Act of 1972. This response to your request was prepared by NMFS pursuant to section 7(a)(2) of the ESA, implementing regulations at 50 CFR 402, and agency guidance for preparation of letters of concurrence.

During this consultation, we concurred with your determination that the proposed action is not

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