

ESTABLISHING AN OFFSHORE MUSSEL FARM IN FEDERAL WATERS IN THE GULF OF MAINE

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Project Goals

- Permit and Establish a 33 acre (1.44 million sq ft.) commercial scale submerged blue mussel (*Mytilus edulis*) farm in federal waters 8.5 miles off Cape Ann, Massachusetts
- The full-scale farm will consist of 60 – 300 ft submerged longlines in a 3 by 20 array.
- Initial Permit Application submitted to ACOE pursuant to Sec 10 Rivers and Harbors Act (33 USC Sections 401)

Proposed NEMAC Offshore Mussel Farm Site

Figure 1. Proposed NEMAC Offshore Mussel Farm Site



Permitting Process

- Federal and State Interagency Consultations
 - To Determine if Environmental Impact Statement is Required
- Conference Call/Consultations
 - NOAA NMFS, Aquaculture
 - EPA
 - Navy
 - MA DMF, DPH, CZM (Federal Consistency)

Environmental Impact Statement

- Detailed site description
- Detailed description of gear deployed
- Impacts to current fishing activities
- Endangered species protection
- Invasives monitoring and prevention
- Site decommissioning plan

Environmental Impact Statement

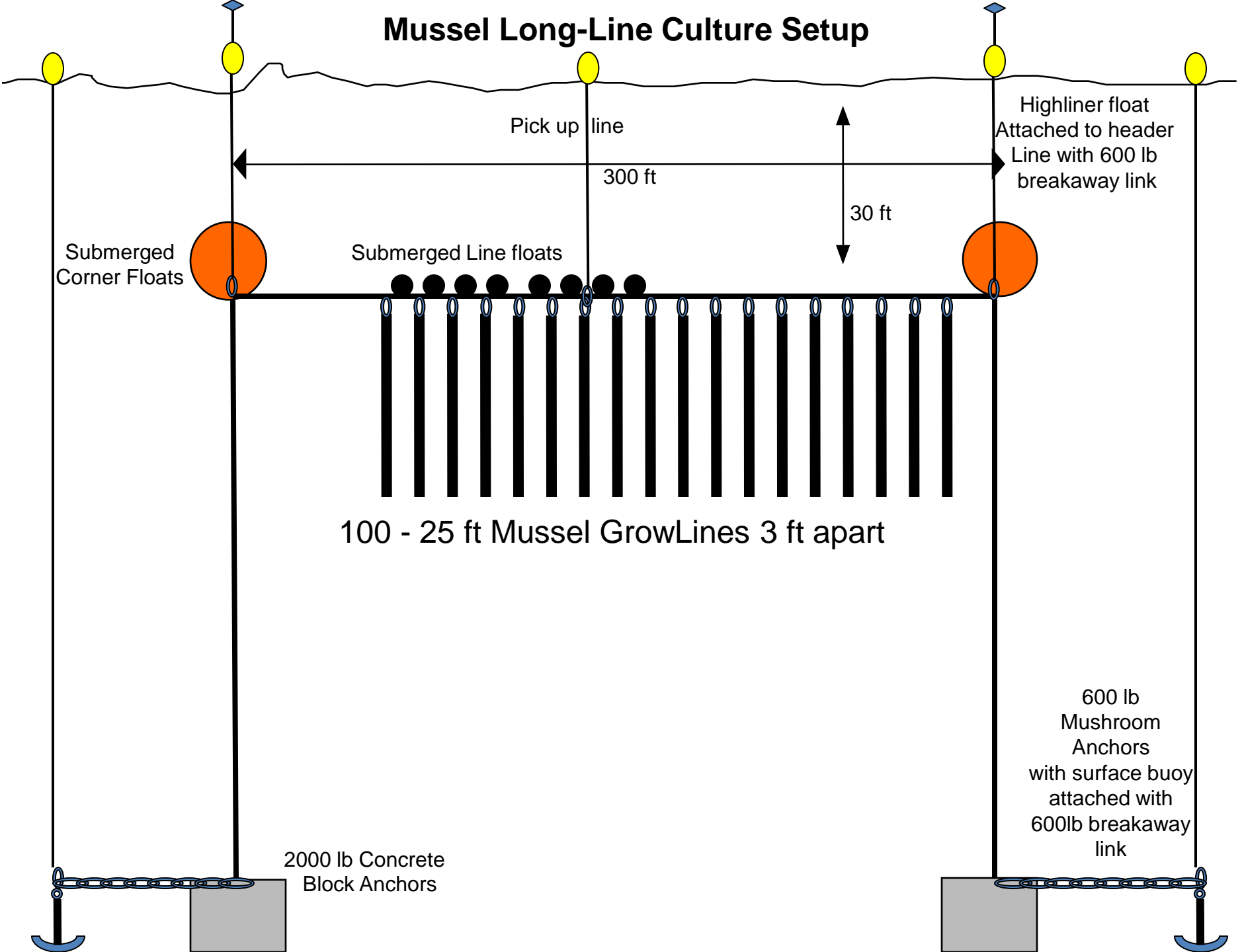
Site Description

- Bottom profile
 - Video/photo survey
 - Grab sampling
 - Faunal/Sediment analysis
- Physical oceanographic data
 - Bottom current profile

Gear Description

- Bottom anchors
- Longline floatation
- Placement in water column
- # & length of mussel lines
- Surface floats

Mussel Long-Line Culture Setup



Environmental Impact Statement

Impacts To Current Fisheries

- Demonstrate minimal impact to established fisheries
- Vessel Trip Reports
 - Request From NOAA/NMFS Analysis and Program Support Division
 - Vessel activity within 5nm radius of site coordinates
 - 2 nm radius
- Consult area fishing community

Endangered Species Protection

- Longline under tension
- 600 lb break away links
- Longline submerged at least 25 ft (surface feeding)
- Bottom clearance at least 60 ft (bottom feeding)
- Mussel grow lines less than 26 ft (8M)
- Report observations
- Frequent site visits
- No reported entanglements in other NE mussel farms

Environmental Impact Statement

Invasives Monitoring and Prevention

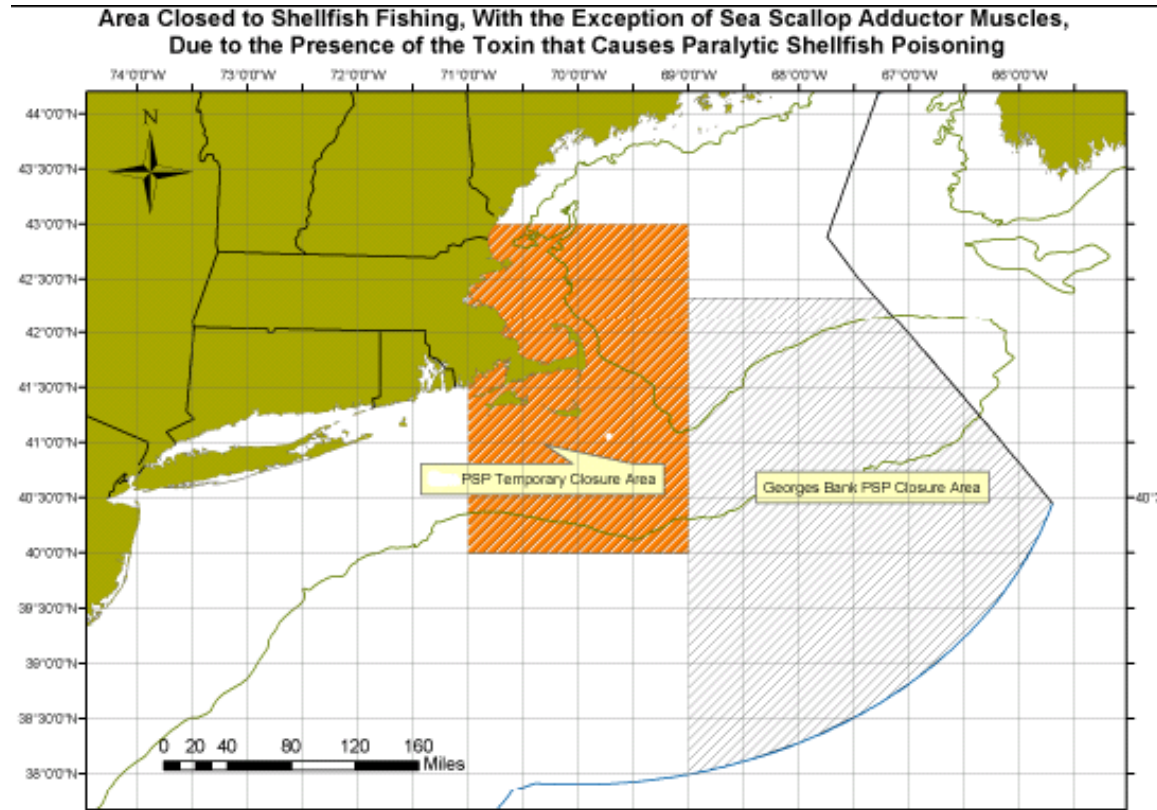
- Monitoring program
- Seed/harvest transfers to and from site
 - De-clumping and sorting
 - Air exposure
 - Freshwater soaks and sprays

Site Decommissioning Plan

- Removal of all longlines and anchors
- Notify ACOE

Federal Temporary PSP Closures

- Closed since 2005
- Recent opening of Georges Banks to Atlantic surfclams and Ocean Quohog Fishery
 - Requires on-board and dockside PSP toxin testing
 - FDA/NSSP, MA DPH regulations
- Looking into similar options for permitting



MA DMF 2005

Other Issues

- Exempted Fishing Permit (EFP) issued by the National Marine Fisheries Service (NMFS)
 - harvesting from Federal waters that are not routinely monitored for PSP
- State Permits
 - Aquaculture
 - Seed collection in state waters
 - Shellfish
 - Landing in state waters
 - Shellfish Dealer
- Business Plan

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- Scott Lindell, Director, Scientific Aquaculture Program, Marine Biological Laboratory