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

Ted Maney, Mark Fregeau, Bill Lee, Jim Blake, David Alves, Scott Lindell
Northeastern Massachusetts Aquaculture Center (NEMAC)
Cat Cove Marine Laboratory
Department of Biology,
Salem State University
Salem, MA 01970.
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
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

- 100 - 25 ft Mussel GrowLines 3 ft apart
- 30 ft
- 300 ft
- 2000 lb Concrete Block Anchors
- 600 lb Mushroom Anchors with surface buoy attached with 600lb breakaway link
- Highliner float Attached to header Line with 600 lb breakaway link
- Submerged Corner Floats
- Submerged Line floats
- Pick up line
- 30 ft
- 600 lb breakaway link
- Attached to header line with 600 lb breakaway link
- 600 lb breakaway link
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

• Not Likely to Adversely Affect (NLTAA) determination desired
  – 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

Navigation Safety Risk Assessment (NSRA) for USCG Determination (NVIC 02-07)

Site Decommissioning Plan
• Removal of all longlines and anchors
• Notify ACOE
Federal Temporary PSP Closures

50 CFR Sec. 648.14 Prohibitions.

(a) (10) (iii) Fish for, harvest, catch, possess or attempt to fish for, harvest, catch, or possess any bivalve shellfish, including Atlantic surfclams, ocean quahogs, and mussels, with the exception of sea scallops harvested only for adductor muscles and shucked at sea, unless issued and possessing on board a Letter of Authorization (LOA) from the Regional Administrator authorizing the collection of shellfish for biological sampling and operating under the terms and conditions of said LOA, in the area of the U.S. Exclusive Economic Zone bound by the following coordinates in the order stated:

(A) 43[deg]00' N. lat., 71[deg]00' W. long.;
(B) 43[deg]00' N. lat., 69[deg]00' W. long.;
(C) 41[deg]39' N. lat., 69[deg]00' W. long.;
(D) 41[deg]39' N. lat., 71[deg]00' W. long.; and then ending at the first point.
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
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
    • Requires EFP
  – Shellfish Dealer

• Business Plan
Where we are

• ACOE Permit Application is out for Public Comment until May 23, 2013
• Federal Temporary PSP Closure
  1. Get Exempted Fishing Permit (EFP)
    • 1 – 2 years
  2. Or FDA opening???
    • 1 – 2 years
  3. Another Option: Get Letter of Authorization (LOA) from the Regional Administrator authorizing the collection of shellfish for biological sampling
    • Allows setting up pilot study for feasibility until #1 & 2 are worked through
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