MA-ShellfAST Case Studies

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Prior to the public launch of MA-ShellfAST, a pilot phase was held with selected stakeholders in two municipalities.

- Falmouth and Gloucester – diverse ends of aquaculture spectrum
  - Falmouth – established history
  - Gloucester – working on siting/permitting 1st farm
- Identify how different users might use this tool
- What issues or improvements they suggest
  - tool strengths and weaknesses
- How the tool may help users overcome siting and permitting challenges
Pilot testing process and timeline

- Designed to establish clear understanding between partners.
- Provide training on how to use the tool.
- Collect experiences and feedback on how the tool succeeds.
- Where could changes make it more effective?

• **Scoping questions:**
  • What do you want to use MA-ShellfAST for?
  • Who will you be engaging with during to pilot test?
  • What legal challenges do you see in shellfish aquaculture siting and permitting?
  • What practical challenges do you see in shellfish aquaculture siting and permitting?
  • How do you expect MA-ShellfAST to help overcome these challenges?

• **Initial interview:** testing process began with initial meeting among the MA-ShellfAST project team representatives and point(s) of contact from testers. Interviews conducted Fall 2017.
Pilot testing process and timeline

• **Training**: project team visited tester locations to provide initial training on how to use the tool and covered technical issues.
  - Falmouth on 11/14/17 and Gloucester on 11/17/17

• **Testing**: Pilot testing for ~one month to allow users to engage with the tool and try to integrate it into their day-to-day work (without direct input from MA-ShellfAST team, but were available to answer questions).

• **Feedback**: MA-ShellfAST team met with testers for feedback on how tool performed, where it could be improved, and what legal and practical challenges users identified during testing.
  - Falmouth on 1/19/18 and Gloucester on 2/8/18

• **Case studies**: The MA-ShellfAST team produced two case studies on pilot testing in two municipalities that considered the context and challenges associated with the testing in each location.
Pilot testing – Case studies

Selected municipalities with interest in participating and different legal and practical context –

• Falmouth
  • Long-standing oyster aquaculture production in town waters (10 licensed growers, 45 acres)
  • Town-led process underway to develop oyster production for nitrogen mitigation in coastal embayments
  • Pilot test involved harbormaster/shellfish constable; producers; private environmental consultant

• Gloucester
  • No current aquaculture production, but historic wild soft-shelled clam / lobster fishery
  • Strong interest in developing aquaculture from mayor through economic development office (EDIC)
  • Pilot test included a prospective grower, aquaculture tech entrepreneur, harbormaster, shellfish constable, representatives from town EDIC, non-profit seafood organization, and MA DMF
Case study for Falmouth based on pilot testing:

• Considered how Falmouth users were hoping to use the tool –
  • how the tool could help them with these anticipated uses
  • emphasis on legal and regulatory issues

• Case studies fed into tool revisions provided to participants to help overcome challenges that were identified.

Falmouth pilot identified 3 key potential uses for the tool – addressed in the case study.
MA-ShellfAST Pilot Testing: Falmouth Case Study

1) Multi-use aquaculture sites: Can moorings be used both for boats and shellfish aquaculture? Town is working to expand aquaculture for private use and WQ compliance – seeking creative ways to multi-purpose mooring areas
   • Tool can help identify potential co-location sites
   • “Coastal Town Permitting for Aquaculture” layer provides links to relevant information on municipal gear restrictions in waterways regulations.

2) Water quality: Where can oysters be placed for depuration after they are used in water quality remediation (nutrient removal)?
   • MA-ShellfAST tool could help support town’s rotational aquaculture planning & private activities

3) Addition of data layers that include property ownership for notification of abutters – to avoid conflict
MA-ShellfAST Pilot Testing: Gloucester Case Study

Gloucester expressed interest in whether MA-ShellfAST could help chart path for aquaculture as a form of new economic development in the town.

MA-ShellfAST provides relevant information to assist in siting and permitting to help Gloucester and potential new growers, helping to –

1) identify locations for new aquaculture sites
2) help the town identify and pre-permit an aquaculture development area (ADA)
3) assist the town in developing aquaculture-specific regulatory language – currently none exist.
   • Can use regulatory models from other towns to develop one for Gloucester
Technical Assistance & Outreach

Ongoing support – Barnstable County Cooperative Extension/Woods Hole Sea Grant/SEMAC

• Individual outreach/support to individual farmers and towns
• Incorporation into aquaculture classes (Fundamentals of Shellfish Farming)
• MSOA professional development courses and workshops

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