

MA-ShellfAST Case Studies

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MA-ShellfAST Pilot Testing: Overview

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



MA-ShellfAST Pilot Testing: Falmouth Case Study

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.



Photo: Falmouth Enterprise

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



Photo: Seagrass Soundings

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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