

DRAFT SHELLFISH PLANTING GUIDELINES

LISTENING PROCESS – SUMMARY REPORT

Submitted to:

Massachusetts Division of Marine Fisheries
and
The Nature Conservancy

October 21, 2011

By:

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INTRODUCTION

In July 2011, the Massachusetts Department of Fish and Game Division of Marine Fisheries (DMF) released Draft Shellfish Planting Guidelines. To ensure that the Final Guidelines are clear and useable for the public, DMF partnered with The Nature Conservancy (TNC) to host five informal listening sessions between September 8 and September 22 and to provide an opportunity to submit written comments on the Draft Guidelines. TNC engaged The Logue Group as impartial facilitators to manage the listening session process. This brief report prepared by the facilitators describes the comment process and summarizes the input received. Attached as appendices are the documents provided to the public at the listening sessions, notes from the sessions, and written comments received. Funding for the process was provided by TNC under a grant from the Massachusetts Bays Program. Outreach was conducted through press releases to the media from DMF and TNC, mailing by TNC to 3,058 people and organizations from a list provided by DMF, emailing by TNC to individuals interested in marine issues, posting of information on the DMF website¹ with a link from the homepage, and word of mouth.

THE LISTENING PROCESS

Five listening sessions were held in coastal communities. Each session followed a similar format.

At each session, DMF staff welcomed the public, explaining that the Guidelines were drafted to clarify existing regulations and vocabulary on shellfish planting and to identify and clarify best practices DMF promotes for shellfish planting activities. DMF staff stated that the purpose of the

Guidelines is to bring together information in one place to make the shellfish planting vocabulary, statutes and regulations, and permitting process more clear for municipalities, shellfish planters and harvesters, and researchers. TNC staff explained that the sessions were intended to provide greater understanding of the policies and that the Conservancy is committed to habitats, restoration, conservation, and biodiversity. Given the many different interests in shellfish planting, the Guidelines and outreach efforts are a significant step in recognizing the diverse cultural, economic

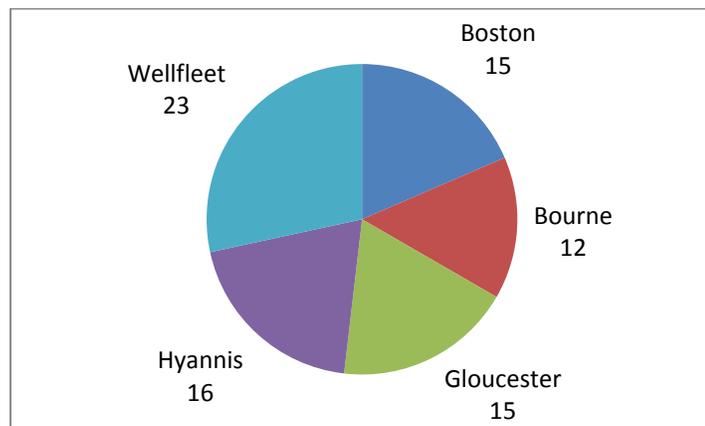


Figure 1. Attendees at Each Session

¹ http://www.mass.gov/dfwele/dmf/programsandprojects/shellplant_guide.htm

and ecological benefits of Massachusetts shellfish resources. At a minimum, the Guidelines illustrate how the various parties can work together within state statutes, regulations and policies. TNC expressed an interest in partnering with organizations for restoration and ecological benefit.

At the open and close of each session the participants were anonymously polled by electronic key pads. Questions focused on demographic information and level of understanding of the guidelines. There were a total of 81 participants in the five listening sessions. The demographic information is provided in Figures 2 and 3. The complete survey results are contained in Appendix B.

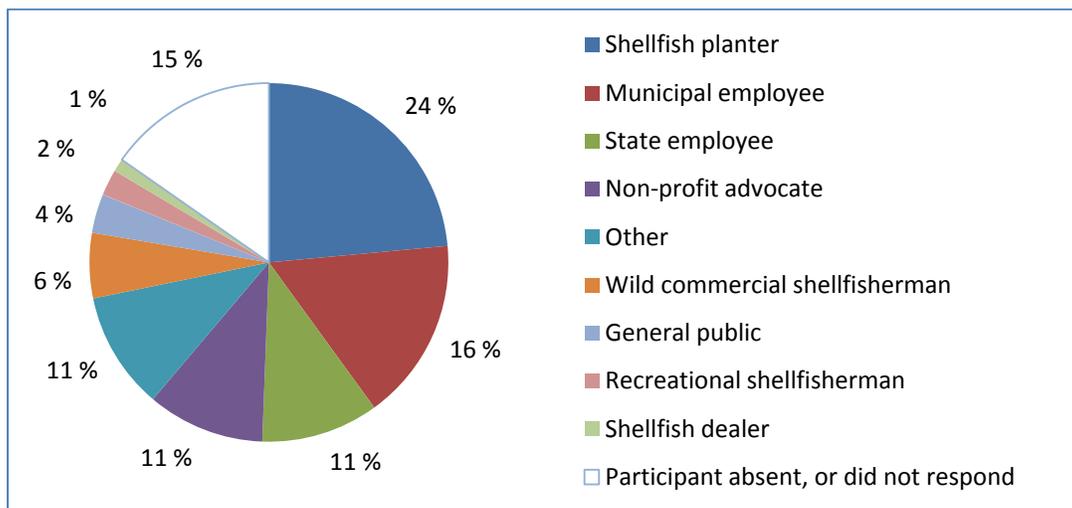


Figure 2. Background of Attendees

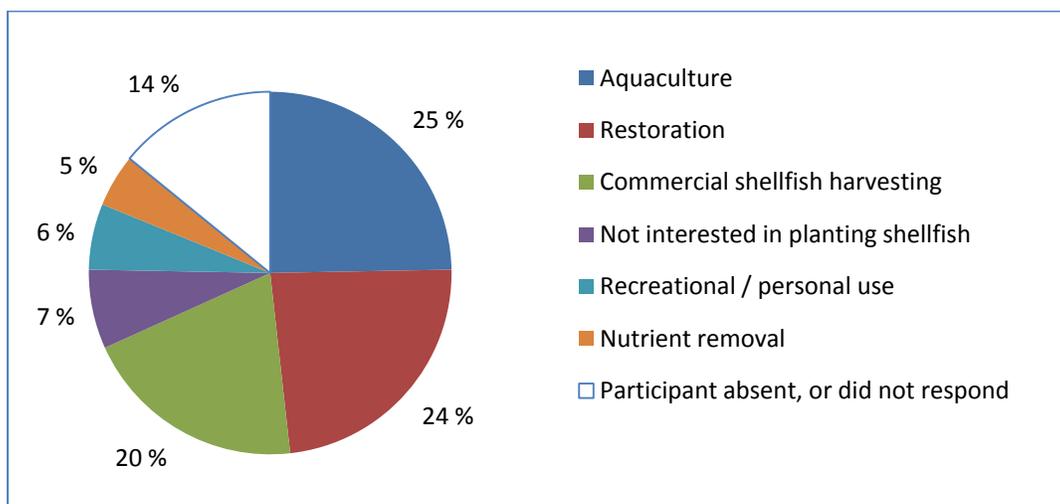


Figure 3. Reason for Interesting Planting Guidelines

thanked DMF for the opportunity for dialogue and informal comment before finalization of the Guidelines. A number of editorial suggestions were made but are not detailed in this summary. For the most part, these editorial suggestions were requests for additional clarification, for specificity or more examples in the text, and for altered or added emphasis in the text or movement of footnotes into the body of the text.

More than two dozen topical questions, suggestions and comments were raised. Many are closely entwined. These are tabulated in rough form in Appendix D. What follows is a summary of common themes. The individual written and listening session comments should be reviewed in detail as many make important points with some detail that should be considered from a scientific, social or economic perspective concerning the management and regulation of shellfish in the Commonwealth. The most prominent general themes which emerged were:

- **Ecological Services:** Additional emphasis, clarification and appreciation for the role shellfish play in ecological services included filtration of contaminated waters and habitat creation. Restoration is seen as the driving force behind much of this.
- **Three Year Limitation on Closure to Harvesting:** Concern that restoration activities, research and shellfish resource protection might be better served with a more flexible approach to closure.
 - **Sanctuaries/Refuges:** Desire for the creation of set aside areas.
- **Three Year Limitation on Research Permits:** Concern that research results may not be sufficient or conclusive within three years.
- **Shellfish/Oyster Gardening:** General support for shellfish and oyster gardening programs.
- **Cultch Aging:** Desire for a more flexible approach to the aging of cultch.
- **Massachusetts/NSSP Differences:** Clarification and rationale for Massachusetts selecting more restrictive standards than those set by the National Shellfish Sanitation Program (NSSP) for depuration periods.
- **Permit Requirements:** More explicit description of permits which may be required from other agencies.

Other Issues Raised Include:

Specific requests for clarification and additions to various definitions; enforcement; municipal role in setting market value from licenses; anchoring systems; sufficiency of emphasis on shellfishing relative to other uses; licenses in non-municipal waters; transport and tagging; depuration; seed/spat handling; riparian ownership; and best management practices.

SUMMARY OF COMMENTS

Ecological Services

Many commenters requested additional emphasis, clarification and appreciation for the role shellfish play in ecological services including filtration of contaminated waters and habitat creation. These comments were closely tied to the need for clarity and greater delineation of pathways for shellfish restoration initiatives, including in restricted and conditionally approved waters. Comments relating to requirements to open areas to harvesting, research permits and sanctuaries/refuges flow from the premise that ecological service benefits from self-sustaining populations in restored or new areas are not being fully recognized or realized in the existing regulatory and oversight framework.

In addition to the production of shellfish for human consumption with the attendant economic benefits, the ecological service benefits were seen as needing greater emphasis and clarity in the Guidelines and regulatory process. A number of communities are seeking to protect and enhance water quality and see the filtration provided by shellfish as one means of aiding in achieving this goal and perhaps meeting the U.S. Environmental Protection Agency's Total Maximum Daily Load requirements and other water quality standards. Another significant ecological service benefit raised in the comments was the role of shellfish as keystone species in creating habitat for other species and the associated food sources for aquatic and avian species.

A number of commenters see restoration of shellfish reefs as the primary mechanism for achieving these ecosystem service benefits. Suggestions included greater clarity and new regulations to ease the permitting process for restoration projects which allows for a focus on the ecosystem service benefits as the primary role of the resource at a location rather than the economic benefit associated with harvest. Other benefits cited from restoration include, among others, erosion control, storm buffering, and spat production.

Three Year Limitation on Closure to Harvesting

Concern that restoration activities, research work and shellfish resources might be better served with a more flexible approach to closure duration. Comments associated with the ecosystem service benefits raised concern that the three year limit of closure to harvesting does not provide sufficient time for new and restored reefs to become established. Exceptions or creation of measures to ensure sustainability prior to harvesting were suggested as alternatives to ensure a viable population while protecting the public right of access to the shellfish resource.

Sanctuaries/Refuges: Several commenters proposed the consideration of sanctuaries or refuges not subject to harvest requirements. These comments are linked to comments

and suggestions related to the three year limitation on closure to harvest, restoration efforts and creation of spawning areas. These areas were suggested as hedges against disease and offering sites to enhance the genetic diversity of the shellfish population, especially given the types of stock coming out of hatcheries.

Three Year Limitation on Research Permits

A number of commenters expressed concern that the three year limitation on research, especially in tandem with the three year limitation on closure to harvesting was overly restrictive. This is based on a number of factors including: the time it takes for oyster reefs to mature; the experimental results needing additional time to emerge or being trial and error for a location; diseases which may impact the shellfish after three years. Greater clarity was sought on the interrelationship of research and restoration permits and which would be appropriate and under what conditions.

Shellfish/Oyster Gardening

Most commenters on this issue supported the concept of shellfish or oyster gardening. One commenter opposed the concept on the grounds that other farming methods provided better controls with greater economic and environmental benefits. Those who support gardening offered a number of suggestions and clarifications, including:

- Looking to other states with programs to encourage broader thinking on the strategies, size and models for gardens and the use of permits through an oversight entity that cover multiple sites
- The potential ecological benefits through water filtration from gardening
- Creation of qualifications for “master gardeners”
- Benefits from volunteer riparian owners who, in addition to enhancing populations, increase the level of public support and education

Cultch Aging

Desire for a more flexible approach to aging of cultch. A number of comments expressed the opinion that the blanket restriction of aging of cultch for one year was overly restrictive and that the public could be adequately protected while allowing for a more flexible approach. This includes consideration of the sources of cultch (e.g., steam shucking facilities) and shell types that would allow shorter periods of aging while preventing the spread of potential oyster disease. One commenter noted that removal of shellfish by harvest and limitations on cultch placement reduces the buffering role shells play in acidified waters.

Massachusetts/NSSP Differences in Standards for Depuration

Clarification and rationale for Massachusetts use of more restrictive standards than those set by the National Shellfish Sanitation Program. This issue was raised both in written comments

and at the listening sessions. Commenters questioned both the rationale and the extent to which Massachusetts standards are more restrictive than the model NSSP standards and those adopted by other northeastern states. Suggestions and questions addressed the duration of relays and depuration periods suggesting research to provide a rationale. One commenter suggested the granting of variances for alternative methods of depuration.

Permit Requirements

Several commenters requested a more explicit description of any permits which may be required from other agencies (state, federal, municipal) in conjunction with the traditional permits. The necessity of federal permits for some activities was also questioned.

Municipal Management Plans for Prohibited and Restricted Waters

One of the newer elements or clarifications in the Guidelines was the clarification under allowable shellfish planting practices that, subject to a management plan approved by DMF, municipalities may use prohibited or restricted waters as nursery areas. Participants were encouraged by the availability of this option. A number of comments requested greater clarification of this practice, including:

- Clarification on growing period or size restrictions
- Associated testing for contaminants before relay transfers
- Greater latitude for aquaculturalists and groups who use these waters for nurseries and application of the NSSP guidelines

Other Issues Raised

- Specific requests for clarification and additions to various definitions and editorial suggestions. Examples include:
 - Clear process for permitting restoration projects
 - Feelings that greater emphasis be placed on aquaculture and restoration to place them on a similar footing as other activities and traditional fishing practices
 - New definition within propagation for enhancement
 - Clarification between Shellfish Growing Area Classifications and the Planting Definitions
 - Descriptions and criteria for classification areas open or closed status.
 - Reference to additional types of anchoring systems
 - Consistent use of acronyms and a glossary of abbreviations
- Enforcement: There was concern about the protection of public health and the reputation of the shellfish industry. Commenters recognized that this relies on appropriate enforcement. Some expressed concern about the ability to adequately enforce harvest restrictions in restricted and conditionally restricted waters. Others

expressed concern that enforcement problems not be used as a surrogate to deny allowable planting activities when it is the responsibility of the state and municipalities to enforce restrictions. Some comments stated that restricted waters are generally distant enough from harvest areas than enforcement should be manageable.

- Yearly Market Value: The municipal role in setting reasonable yearly market value from licenses was questioned. This issue was seen as both a practical problem related to factors outside the licensee's control and a sense that those charged with setting the value did not have sufficient information and knowledge to make such an assessment.
- Licenses in non-municipal waters: the suggestion was made to create a process for licenses for aquaculture in state waters outside of municipal control.
- Transport and tagging: a number of people raised the cost and inconvenience of individual tagging bags for transport, especially during the winter months.
- Miscellaneous issues raised include: seed/spat handling; riparian ownership; and reference to best management practices.

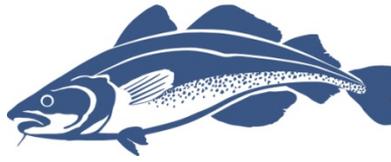
CONCLUSION

In conducting the listening session process DMF and TNC appear to have earned the appreciation of the public for conducting a transparent process in seeking input on the Draft Shellfish Planting Guidelines. TNC was instrumental in designing the process and disseminating information about the session and funding the neutral facilitation. At the sessions, DMF staff were available to answer any and all questions related to the Guidelines and general questions seeking information and guidance on shellfish planting practices. In addition, a number of suggestions were made which raise potential regulatory and legislative changes that may be beyond the scope of the Guidelines. DMF staff accepted these or, if appropriate, directed the commenter to the appropriate responsible party or process to address the issue. The information, comments and suggestions provided by the public relating to the Guidelines at the listening sessions and in written comments, which are summarized in this report and detailed in the appendices, provide the foundation for edits and clarifications in finalizing the Guidelines.

APPENDIX A

Meeting Materials

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AGENDA
Shellfish Planting Guidelines – Listening Sessions

6:00 – 8:00 PM

Sept. 8th - Gloucester

Sept 13th - Boston

Sept. 15th - Bourne

Sept 20th - Hyannis

Sept. 22nd - Wellfleet

Time	Topic	Who
6:00	Welcome & Introductory Comments	Mike Hickey or Kathryn Ford – DMF Jon Kachmar or Casey Shetterly – TNC
6:05	Meeting Overview	Bill Logue, The Logue Group
6:20	Presentation of Guidelines	Mike Hickey or Kathryn Ford – DMF
6:45	Question and Answer Session	
7:05	Public Comment Opportunity	
7:50	Evaluation of Meeting	
7:55	Closing Remarks	Mike Hickey or Kathryn Ford – DMF Jon Kachmar or Casey Shetterly – TNC
8:00	Adjourn	



Funding provided by the
MA Bays National Estuary Program

[Please See Proposed Ground Rules on Back](#)

Proposed Ground Rules

We greatly appreciate your taking time to participate in this Listening Session. We recognize this issue is important to you and that many of you hold passionate and diverse views.

In order to make this a positive and productive experience for you we have drafted the following ground rules/expectations to guide us through this meeting.

A. The Massachusetts Division of Marine Fisheries (DMF), with the assistance of The Nature Conservancy (TNC), have convened this Listening Session in order to solicit public input for the draft guidelines and clearly define the shellfish planting oversight process within the Commonwealth's coastal waters. They have engaged the services of The Logue Group as neutral facilitators to manage the meeting. Please give DMF and TNC staff the courtesy of making their presentations without interruption. There will be time at the session for the general public to ask questions and provide feedback.

B. Suggested Ground Rules:

1. Listen to presenters and other members of the public as an ally with respect and without interruptions or personal attacks.
2. Avoid dominating the discussion so that everyone has an opportunity to contribute.
3. Express your own views or your organization's views and do not attempt to speak for others.
4. Share information and concerns to help inform DMF of your questions, concerns or appreciation.
5. It is perfectly OK for people to hold differing opinions, but remember, this is an opportunity share different perspectives and to help inform DMF before finalizing the guidelines, it is not a debate to persuade others to agree with you.
6. Please sign-in to make comment. When it is your turn be brief and to the point so that all will have an opportunity make comment. As time allows, raise your hand to signal the facilitator(s) you wish to be recognized.

C. Opportunities for Feedback: DMF is genuinely interested in hearing your feedback. You can provide feedback in the following ways:

1. Sign up to speak. Please keep your comments brief and to the point.
2. You may also write comments on the comment cards available at the meeting. Cards will be collected by the facilitators at the conclusion of the meeting. *Please write legibly.*
3. Through **October 3**, you may comment via a dedicated email address:
MAshellfishguidelines@gmail.com

D. Where to find further information:

http://www.mass.gov/dfwele/dmf/programsandprojects/shellplant_guide.htm

E. Your comments, suggestions and questions will be forwarded to DMF and TNC.



Funding provided by the MA Bays National Estuary Program



Draft Shellfish Planting Guidelines

This list of questions was developed to help provide answers to anticipated questions and concerns regarding the Marine Fisheries Draft Shellfish Planting Guidelines.

Anticipated Questions

1. Why is the Division of Marine Fisheries holding the listening sessions for the Shellfish Planting Guidelines?

Marine Fisheries, with the assistance of The Nature Conservancy (TNC), is holding the Sessions to solicit public input for the draft guidelines and clearly define the shellfish planting oversight process within the Commonwealth's coastal waters. The Nature Conservancy (TNC) is hosting these sessions as part of a grant received by MA Bay Estuary Program. The mission of TNC is to protect biological diversity and its interests include partnering with shellfish harvesters to support long-term sustainability of shellfish resources.

2. Why are these Guidelines being issued?

These guidelines contain *Marine Fisheries'* definitions and policy framework relative to all types of shellfish planting, including shellfish propagation and enhancement, restoration, mitigation, and aquaculture in state managed waters. The intent is to clarify and enumerate considerations for review of shellfish planting projects to benefit project applicants, as well as local, state and federal resource and permitting agencies. The guidance outlined is intended as a supplement to regular reviews and consultations with resource and permitting agencies.

3. What is new or different from previous Guidelines? Are these new regulations?

These are not new regulations. The guidelines are a compendium of *Marine Fisheries* shellfish planting policies. Because there is increasing interest in planting shellfish to improve water quality in degraded coastal waterbodies, DMF is interested in balancing the interest in shellfish restoration with the important goals of protecting human health and local shellfish stocks, and enabling opportunities for Massachusetts commercial and recreational shellfishermen.

4. What shellfish species are covered by these guidelines?

These guidelines pertain to bivalve molluscan shellfish, including clams, mussels, oysters, quahogs, ocean quahogs, razor clams, surf clams, bay scallops and sea scallops.

5. How do I apply for a permit and who do I contact, the town or the state?

Permits to possess and plant shellfish are issued by *Marine Fisheries*. All activities must be approved by the municipality and meet the provisions of the Planting Guidelines. Depending on the activity, permits may be issued to individuals,

institutions or municipalities. Questions on permitting should be addressed to the *Marine Fisheries* Shellfish Program (Address: 1213 Purchase Street, New Bedford MA 02740).

6. Why would a planting site be closed for “up to three years”?

A planting site in publicly controlled beds may or may not be closed at the discretion of the municipality under local management authority. If the area is closed, it cannot be kept closed for more than three years under state statute. The purpose of the closure is to allow undisturbed growth and spawning. The limitation on the closure is to ensure that the area is returned to the public fishery.

7. When/how is aquaculture permitted/licensed? Who issues the license?

Private aquaculture sites are licensed by the municipalities with the approval of *Marine Fisheries*. Holders of a licensed site are also required to obtain an Aquaculture Permit annually from *Marine Fisheries* to possess seed and plant shellfish at their licensed site.

The site licensing process varies between local jurisdictions but must at a minimum conform to Chapter 130, sections 57 – 68, MGL. Municipalities have local regulatory authority over aquaculture and can also condition licenses. Site selection must be done with the cooperation of the local shellfish Department and approved by the selectmen or city council and mayor. Areas considered for private aquaculture must not contain substantial amounts of natural shellfish, submerged aquatic vegetation, endangered species or other fisheries as determined by *Marine Fisheries*; who must also certify that license and operation of the site will not have an adverse effect on shellfish or other natural resources.

8. What will be done with the information gathered at the listening sessions and who will receive it?

Bill Logue, the listening session facilitator, will assemble feedback from the public listening sessions and comments submitted by mail or email. He will present his findings to *Marine Fisheries*, who will in turn review and edit the Draft Guidelines. *Marine Fisheries* plans to release the Final Guidelines in December to MA shellfish stakeholders, other MA agencies and other interested parties.

9. Where can I find more information on shellfish planting?

Your local shellfish department is an excellent resource and a good place to start. The Division of Marine Fisheries Shellfish Program is also available to answer questions.

10. Where can I submit my comments regarding the Draft Shellfish Planting Guidelines?

Comments and/or concerns regarding the *Marine Fisheries* Draft Shellfish Planting Guidelines can be submitted online using the following link: MAshellfishguidelines@gmail.com

The deadline for submitting comments is October 3, 2011.



Funding provided by the MA Bays National Estuary Program

Shellfish Planting Guidelines

Outlining Principles to Which Shellfish
Planting Programs Should Adhere



Listening Session - Agenda

- Welcome
- Agenda Review
- Presentation of Guidelines
- Q&A on Guidelines
- Comment
- Listening Session Evaluation and Adjourn



Planting Guidelines

- Why did we write the Guidelines?
 - To clarify the regulations that *Marine Fisheries* operates under
 - To clarify the vocabulary associated with shellfish planting
 - To identify and clarify the best practices *Marine Fisheries* promotes for shellfish planting activities



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Planting Guidelines

- Who wrote the guidelines?
 - *Marine Fisheries* Shellfish Program wrote the guidelines
 - The Nature Conservancy received a grant from MassBays to support the public review of the guidelines and application of the guidelines



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Shellfish Management

- Humans consume shellfish, in some cases uncooked.
- Shellfish grow in waters that are susceptible to pollution by human pathogens.
- The main focus of shellfish management is on protecting human health.
- A related goal is to ensure the quality and reputation of Massachusetts shellfisheries.

MA ranked first in the nation in the value of fisheries landings in 2009



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How We Protect Human Health

- Massachusetts is a member of the National Shellfish Sanitation Program under FDA
 - sanitary control of shellfish produced and sold for human consumption
 - promote and improve the sanitation of shellfish (oysters, clams, mussels and scallops) moving in interstate commerce
- *Marine Fisheries* monitors bacteria levels and classifies the waters of the Commonwealth



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Classification Levels

- **Approved:** Open to the harvest of shellfish for direct human consumption subject to local rules and regulations and only closed during major coast wide events (e.g. an oil spill or red tide event).
- **Conditionally Approved:** Closed some of the time due to rainfall or seasonally poor water quality or other predictable events. When open it is treated as an Approved area.
- **Restricted:** Contains a limited degree of contamination at all times. Open to harvest only for the relay of shellfish to a less contaminated area or harvest for depuration.
- **Conditionally Restricted:** Contains a limited degree of contamination at all times and is subject to intermittent pollution events. May be closed some of the time to rainfall or seasonally poor water quality (during which no harvest is allowed). When open, only softshell clams may be harvested by Master/Subordinate Diggers for depuration at the *Marine Fisheries* Shellfish Purification Plant.
- **Prohibited:** Area closed to the harvest of shellfish under all conditions.



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Closure Status

- In addition to the classification level, an area can be in an
 - Open Status: open to harvest
 - or
 - Closed Status: closed to harvest
- Examples
 - An Approved area can be in Closed Status if there is an oil spill or red tide event
 - Conditionally Restricted areas enter Closed Status after a rainfall event or seasonal closure



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Classification Areas

Shellfish Growing Area BB12 with six classification areas.

Each classification area is assigned a classification and a status based on NSSP guidelines.

This map is from July 2009 and may not represent the current status of the classification areas.

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Definitions

Planting:
increasing or creating shellfish resources

1. **Propagation:** conducted by municipalities or the state to increase the supply of shellfish available to the public fisheries.
2. **Aquaculture:** the planting of shellfish at a specific privately licensed location resulting in the commercial production of shellfish.
3. **Research Project:** any planting activity designed for hypothesis testing, experimentation, scientific research or education, permitted annually by *Marine Fisheries*. These permits include a monitoring and reporting component.

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Types of Propagation

Propagation: conducted by municipalities or the state to increase the supply of shellfish available to the public fisheries.

Short term Relays:

The transfer of shellfish by municipalities from growing areas classified as Restricted or Conditionally Restricted to growing areas classified as Approved or Conditionally Approved to reduce pathogens in the shellfish. Shellfish may be harvested after 90 days and usually one spawning season.

Long term Transplants:

The transfer of shellfish by municipalities from growing areas classified as Prohibited to growing areas classified as Approved or Conditionally Approved to reduce pathogens in the shellfish. Transplants require one or more spawning seasons and a minimum of one year of natural depuration before harvest.

Restoration:

Recreating a shellfish resource that is historically known to have occurred in a water body but no longer exists as a naturally sustaining population. This term generally includes any propagation effort done for ecosystem service benefits.

Mitigation:

Propagation done as compensation for alterations resulting in losses or damage to existing shellfish resources or habitat.



October 10, 2011

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Marine Fisheries Principles

1. Minimize conflict between user groups.
2. Support and participate in propagation and enhancement efforts, encourage private aquaculture while protecting the right of access to a public shellfishery.
3. Do not disrupt traditional fishing practices, do not adversely effect existing shellfish populations or habitat, and do not create enforcement or potential public health problems.
4. All planting activities require a permit from *Marine Fisheries*.



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Allowable Shellfish Planting Practices

1. Planting may be conducted in Approved or Conditionally Approved waters.
 - a. Planted areas cannot be closed in excess of three years.
 - b. Aquaculture in Conditionally Approved areas is not generally encouraged due to enforcement and public health concerns while these areas are in a closed status.



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Allowable Shellfish Planting Practices

2. Shellfish planting is not allowed in areas classified as Prohibited or Restricted except as follows:
 - a. Mitigation overseen or conducted by *Marine Fisheries* for losses to existing shellfish resources.
 - b. Propagation conducted by *Marine Fisheries* and/or municipalities in Restricted or Conditionally Restricted areas to support depuration fisheries.
 - c. Municipalities may utilize contaminated waters as nursery areas to raise seed shellfish for eventual transplant to Approved or Conditionally Approved waters under a management plan approved by the director of *Marine Fisheries*. Nursery products would then be transplanted or relayed under provisions of the management plan and an NSSP required *Marine Fisheries* Contaminated Transplant Permit for contaminated transplants.



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Allowable Shellfish Planting Practices

3. Research Projects may be conducted in all waters regardless of NSSP classification.
 - a. Not to exceed three years.
 - b. Cannot establish new shellfish populations in contaminated waters.
4. In waters under municipal control, private propagation activities (e.g. not aquaculture and not research) are conducted in partnership with the city or town.



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Allowable Shellfish Planting Practices

5. Shellfish planting by private citizens or private property owners (i.e. shellfish or oyster gardening) may be conducted under the auspices of the local shellfish department in common areas of Approved waters set aside by the municipality under their shellfish management authority
 - a. A municipality may allow this activity in contaminated waters under a contaminated area management plan approved by *Marine Fisheries*.
 - b. This activity is conditioned by *Marine Fisheries* on the municipal propagation permit. Shellfish produced are used to augment the public fishery.



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Allowable Shellfish Planting Practices

6. Construction of artificial reefs to increase shellfish habitat and resource may be conducted under the auspices of the local shellfish department in common areas of Approved waters set aside by the municipality under their shellfish management authority.
 - a. A municipality may allow this activity in contaminated waters under a contaminated area management plan approved by *Marine Fisheries*.
 - b. This activity is conditioned by *Marine Fisheries* on the municipal propagation permit.
 - c. All reefs should not adversely affect other fisheries and shall conform to the *Marine Fisheries* Artificial Reef Policy (Rousseau 2008).
 - d. Reefs cannot be closed for more than three years.



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Permitting

- All planting activities (e.g. propagation, aquaculture, and research) require a **Special Project** Permit from *Marine Fisheries*
 - Depending on the purpose and methods of the planting activity, various conditions may be required.
- All planting activities require permission from the municipality in which the planting will occur.
 - Aquaculture requires a municipal site license (grant)
 - *Marine Fisheries* will consult with the local shellfish constable for other activities
- All planting activities must follow the statutes and regulations in MGL Chapter 130 and 322 CMR
- No invasive or non-indigenous species
- Transplants must be tested for disease or come from an approved source
- If the culture technique involves rafts, racks, floats, bags, moorings, placement of cultch or protective netting, then additional permits may be required from the U. S. Army Corps of Engineers and /or the Massachusetts Dept. of Environmental Protection.
- Shell cultch must be aged for one year



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Next Steps

- Assemble feedback from public listening sessions and comments submitted by mail or email.
- Review and edit the Draft Guidelines.
- Release Final Guidelines in December.



- Schedule of Sessions:
 - Sept. 8th - Gloucester
 - Sept 13th - Boston
 - Sept. 15th - Bourne
 - Sept 20th - Hyannis
 - Sept. 22nd - Wellfleet
- Comments Accepted through October 3rd
 - MAshellfishguidelines@gmail.com

Thank you for coming to the Session!



APPENDIX B

Listening Session Notes.....	Page B-1
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Listening Session Key Pad Survey Results.....	Page B-14

NOTE:

What follows are the Facilitation Team's notes from each of the Listening Sessions. This is not a transcript, rather it is a brief synopsis of questions and comments, and any responses by DMF. The Team apologizes in advance if the exact sentiment or intent of a speaker was not captured correctly.

Responses from DMF were informal and should not be relied upon as official statements, should further clarification be needed please contact DMF shellfish staff. Thank you,

The Logue Group Facilitation Team.

Shellfish Planting Guidelines Public Listening Session Notes
Thursday, September 8, 2011 6:00 PM
Annisquam River Marine Fisheries Field Station, Gloucester, MA

Legend:

- = comment or question from attendee
- = response from Marine Fisheries

Public Questions:

- There seems to be a footnote missing on slide 25?
 - The slides are not taken directly from the guidelines, so they do not include every detail from the guidelines document.
- There seems to be more than one definition of aquaculture.
 - There are loose versus technical definitions, but it comes to the same – propagation of shellfish planting at a specific privately licensed location resulting in the commercial production of shellfish.

Public Comments:

- Robert Buchsbaum, Mass Audubon: Can we be provided with a summary of what's new in the guidelines?
 - This is a compendium of existing regulations and statutes. It is advertising for the first time the role of municipalities to be more involved in contaminated areas. There hasn't been much interest previously from municipalities because you can't harvest and a lot of resources are required – they didn't see the benefit. One benefit could be relays. This opens the door to do this here – it can be done under management plans.
- Bob Brophy, Essex, MA: There is a spot in Essex with a square foot of clams, ¾"-1" close. Will they grow that close together? How many would die?
 - Yes, but with a thinning process – and they won't all survive. The town would need to decide on a transplant and get the permitting. The number that would die depends on a

lot of factors – including the transplant process, and whether they are in sand or mud. This is site specific and labor intensive.

- Ray Konisky, The Nature Conservancy: I am happy to see mitigation identified in the guidelines – how common is this?
 - A lot of mitigation is being done in Boston Harbor, near Logan Airport where there is construction work on the runways. Also South Shore quahogs associated with the state pier in Fall River, and quahog mitigation in New Bedford Harbor associated with the South Terminal.
- Alex Maxson, Shellfish Harvester: If there is an overlap with refuge water, what do we do?
 - The city and town manage shell fisheries within refuge waters. Fish & Wildlife consider private aquaculture private. Talk with the town persons dealing with refuge.
- Alex Maxson, Shellfish Harvester: In Ipswich they put down nets. Is that considered a private or public resource?
 - That is a public resource.
- Lisa O’Donald, Essex Board of Selectmen: Is a permit needed if relocating clams?
 - Yes, a permit is needed. It is quick and easy.
- Robert Buchsbaum, Mass Audubon: In Wellfleet, we work with the town on oyster restoration under an aquaculture project. In the future, does that come under a research project?
 - No, originally under aquaculture site licensing. Now, in Wellfleet operating under town’s propagation permit. It can be confusing. This is why we drew up the regulations, so that we all are on the same page. The regulations put restoration under the auspice of the town.

Suggestion & Comment Cards:

Suggestion: Joe Buttner: Consider Table of Contents. Standardize formatting for major and subordinate headings. Also, bullets and Arabic numbers are used to sort terms, ideas, etc. Standardize and suggest use universally Arabic numbers. Good luck in Boston!!!

Shellfish Planting Guidelines Public Listening Session Notes

Tuesday, September 13, 2011 6:00 PM

UMass Boston Campus Center, Room 3540, Boston, MA

Legend:

- = comment or question from attendee
- = response from Marine Fisheries

Public Questions:

- Anamarija Frankic, UMass Boston: What is meant by research projects not exceeding 3 years?

- We don't want on-going, endless projects. If they involve planting shellfish, 3 years, especially if in a prohibited area. It allows us some control over areas.
- Anamarija Frankic, UMass Boston: Even if a project is related to restoration?
 - If the project is truly restoration, then it can go on eternally as opposed to a research project. We have to separate the two types of projects. If a project starts out as research and then move into restoration or vice versa, then tell us and we'll work with you.
- Anamarija Frankic, UMass Boston: Reefs - are they not closed for more than three years?
 - City and town control approved areas. A management area must open after three years.
- Anamarija Frankic, UMass Boston: What about sanctuaries?
 - Sanctuaries are a function of the state. It is being discussed. There are different standards and multiple agencies involved. Here, we adhere to the M.G.L chapter 130, which says three years is the rule.
- Kenneth Corson, Hingham Harbormaster: Shellfish gardening – are folks allowed to do that?
 - If the municipality wants to allow it – they have to set aside area. It requires a permit under municipal permit – even a dock – needs a “grant” approved area. In restricted areas, individuals cannot do it without municipal management/enforcement plan. The onus of responsibility for management/enforcement is on the municipality so most towns have chosen not to do it.
- Anamarija Frankic, UMass Boston: Cultch has to age for one year – is this strict or can it be shorter? Other states don't' require one year.
 - Massachusetts has always done one year – we would consider shortening it if the cultch is being dripped/cleaned.
- Curt Felix, Town of Wellfleet: Would you consider recycling of cultch?
 - The concern with recycling cultch is about where the shellfish come from. Must be managed by a municipality. Cultch can come from all over the U.S. Perhaps if it is through a well-known cultch program.
- Curt Felix, Town of Wellfleet: Is a special permit needed? What we are doing in Wellfleet is part of a municipal NOAA sponsoring survey – what is needed to be able to put the cultch back in.
 - Town has the permit. The town can contact us and we can write it into the permit.

Public Comments:

- Kenneth Corson, Hingham Harbormaster: There is really nothing new in the Guidelines.
- Anamarija Frankic, UMass Boston: Nothing shocking or earth shattering new.
 - We wrote up what we have been doing, but there are some new things. Municipalities can use contaminated areas more than they have traditionally.
- Curt Felix, Town of Wellfleet: In Wellfleet, a committee was established to look into wastewater treatment benefits shellfish persistence – how is DMF viewing the water quality benefits?
 - Really the DEP that deals with and sets standards for water quality. Usually, planting and rotating are done in three year cycles. Done in sequence - typical shellfish management;

regardless of done for recreation or commercial. Opening would not require full harvest. Not an all-or-nothing. Towns can manage how it is harvested including amount.

- Curt Felix, Town of Wellfleet: If you have two banks and leave one side as shellfish reserve for spawning and allow continuing harvest in the other
 - The statute does not allow for marine reserves.
- Curt Felix, Town of Wellfleet: Actively cultching; leave one side as cultch source.
 - Can still do it, but need to periodically open for harvest.

Suggestion & Comment Cards:

Suggestion: Bob Stanley: I think shellfish planting – reseeding should expand and go forward. It seems to be working so far.

Comment: You guys should try getting your speaker to show more enthusiasm. Also, it was hard to understand the speaker when presenting. It is not good to read the words off the screen, just as future reference, but besides that, great information.

Shellfish Planting Guidelines Public Listening Session Notes

Thursday, September 15, 2011 6:00 PM

Bourne Middle School, Media Center, Bourne, MA

Legend:

- = comment or question from attendee
- = response from Marine Fisheries

Public Questions:

- Dale Leavitt: How come the economic benefits of shellfish planting in Massachusetts are not mentioned in the Guidelines?
 - The economic benefits are part of the overarching Guidelines. Not mentioned as part of the slideshow presentation, but mentioned in the Guidelines.

Public Comments:

- Dale Leavitt, Falmouth: I have experiences here in Massachusetts and working in Rhode Island. First, congratulations for writing up the Guidelines. It is a good thing. There are often roadblocks, not from Marine Fisheries, and confusion and towns do not know what to do, so these guidelines will help make things clear. However, I have several comments to the Guidelines as well. Artificial propagation and aquaculture are also done for replenishment (enhancement) of existing resources. You may want to add another subcategory.

- Enhancement is part of the propagation definition.
- Dale Leavitt, Falmouth: Identify some of the sources when you discuss planting. Explain that in relays there is a need to designate wild products versus aquaculture – farmed. There are different regulations for various aquaculture products. Include some of the distinctions and clarify the sources of where stock is coming from, for example, genetic root stock.
- Dale Leavitt, Falmouth: Rephrase the third bullet under the “Principles” (page 5). The wording about “do not adversely affect... create public health problems” Concern that it does not put shellfishing on same plane as fisheries. Rephrase so aquaculture/restoration does not have diminished status.
- Dale Leavitt, Falmouth: There is a mandate to enforce the regulations – if you make the regulations, you need to enforce them.
- Dale Leavitt, Falmouth: Under the “Allowable Shellfish Planting Practices” (page 7) item 2.c. regarding allowing municipalities to utilize contaminated waters as nursery areas. In NSSP Standards Section 2 chapter 5, they list exceptions to prohibited areas including hatcheries, fisheries, etc. So saying that only municipalities can go into prohibited waters is limiting. Hatcheries and fisheries could be used for nurseries too. Rhode Island allows nursery activities in prohibited areas with certain guidelines.
- Dale Leavitt, Falmouth: In the footnotes, page 6. Does not support new self sustaining populations in prohibited/restricted waters. This is a concern because there are areas where you could use the population for ecological restoration. This footnote should be stricken from Guidelines. Should have an opportunity to use shellfish to clean up some of the areas.
- Dale Leavitt, Falmouth: Footnote #3, page 7. Gardening activities can only produce publicly available resources. Need to realize they come in all shapes and sizes. Rhode Island University license oyster gardening has 100 sites. Strike section or modify to cover different strategies and the different varieties of oyster gardens.
- Dale Leavitt, Falmouth: Under the section “General Permit Requirements” #9 if culture technique includes rafts, racks, floats, etc different permits are required. Under many gardens incl. floating cages – understand if integrated into existing unit; not need federal oversight. Need for clarification.
- Dale Leavitt, Falmouth: Under the section “General Permit Requirements” #10 re cultch aged for min one year – agree for oyster shells. If shucking right out of plant, then there is no contamination. Should designate different types of cultch and different handling practices.
- Dale Leavitt, Falmouth: DMF is saying that it does not want municipalities to undertake contaminated management plans. Rephrase section so that the language is more collaborative
- Dale Leavitt, Falmouth: Regarding private shellfish aquaculture licensing. Production standards tough to implement. Many ways it could not meet production standard in a year. Think this through carefully and incorporate concerns; make sure municipalities consider carefully the needs and reality of their population in their area.
- Ron Smolowitz, Woods Hole Oyster Company: Why the three year restriction on research?

- We do not want to see continuous creation of shellfish beds as research projects. Rather see someone come forward as restoration project with research incorporated. Do not want people to take out a research permit to do restoration project. You can include research in a restoration project; can be written into propagation permit. We are not trying to prevent three year restoration projects.
- Ron Smolowitz, Woods Hole Oyster Company: This is a hypothetical – on the Cape, use oysters for reaching TMDLs. It does not say so; call it something else and might not be site specific or listed under whose management. Municipalities might want to increase shellfish production – use floating cages; contract out so not have to oversee. Shellfish beds yearly; try to increase shellfish production.
 - There is nothing in the policy to prohibit this, but we have to meet the concerns of public health and the concerns of DEP, DPH, NSSP etc. If conditionally approved, conditional management plan to cover this. If done right, you can do this; not different from what is being done now. In approved area, it is up to the municipality as they have the authority. Do not have to open all areas at once; controls of what days, load per day – all local decisions. The permit governs source of shellfish, disease concerns, laws for transplanting, etc. Everything you described is allowed.
- Sandy MacFarlane, Coastal Resource Specialist: Is the three year restriction on research required by statute?
 - No, not by statute. The three year restriction is our regulation to prevent wrong use of permit.
- Ron Zweig, Coonamessett Farm Fnd.: The definition of prohibited areas – closed to harvest, but relay allows for transplanting. Why?
 - Closed for direct harvest to human consumption. If prohibited because of contamination/heavy metals, you cannot use the shellfish in the area, but could bring seed from hatchery. If cause is bacterial, it is doable but must be long-term relays and transplants for depuration. Require one spawning season.
- Ron Zweig, Coonamessett Farm Fnd.: Helpful to include a footnote to explain this in the guidelines.
- Ron Zweig, Coonamessett Farm Fnd.: Regarding the terms for depuration – there are inconsistencies between guidelines and NSSP. In prohibited areas, it lists one year or 1-2 spawning seasons; in NSSP guidelines it says 14 days depending on the situation.
 - NSSP has the minimum national standards. Under NSSP the 14 days depuration depending on the time of year, location – multiple factors. In Connecticut, 14 day relays, heavy regulated – decision from CT DEP and Department of Public Health. In Massachusetts, 14 days relays not allowed by the Department of Public Health. States have authority to be more restrictive. Our guidelines are based on regulations and departmental allowances. We have to work within DEP and DPH regulations too, including may require permit from DEP, municipal

commissions, etc. In Massachusetts, shellfisheries are shared with state and municipalities.

- Ron Zweig, Coonamessett Farm Fnd.: Many people do not know how these came to be; perhaps research is needed to look into these.
 - These are long-existing policies based on existing statute and regulations. This is what you can do under existing legal framework. This is what is now based on legal framework. As a next step, maybe we need to look at this?
- Josh Reitsma, Cape Cod Cooperative Extension: Is it possible to get an aquaculture license for state waters (non-municipal)?
 - The state has no authority to do so.

Suggestion & Comment Cards:

N/A

Shellfish Planting Guidelines Public Listening Session Notes

Tuesday, September 20, 2011 6:00 PM

Barnstable Town Hall, Hyannis, MA

Legend:

- = comment or question from attendee
- = response from Marine Fisheries

Public Questions:

- Kris Clark, Mashpee Wampanoag Tribe: What is the difference between a Public Listening Session and a Public Hearing?
 - What we are doing is not a regulatory change, so we are not required to hold a public hearing. In this instance, we are putting out our current policies – putting them into one document, and out to the public for review and comment. We are seeking public comment to make things as clear as possible.

Public Comments:

- Kris Clark, Mashpee Wampanoag Tribe: On some level, aquaculture and propagation are the same, but aquaculture seems to get a bad rap.
 - In the regulations, propagation is used all over, so we are sticking with the existing language. Public propagation is really public aquaculture.
- Heidi Clark, Cape Cod Cooperative Extension +WHOI Sea Grant: What are the criteria used to decide on classifications?

- The NSSP is a water-based classification system; not into the bacterial side. Contaminants in soil of interest, but not how we classify areas. We test for contaminants in shellfish also to determine whether to shut down. In prohibited areas, there is a concern with metals, PCBs, etc. Learn of this in the sanitary survey.
- Heidi Clark, Cape Cod Cooperative Extension +WHOI Sea Grant: Areas in New Bedford, etc. are conditionally approved – do you look for PCBs, etc there?
 - Yes, based on tissue sampling there.

Suggestion & Comment Cards:

N/A

Shellfish Planting Guidelines Public Listening Session Notes

Thursday, September 22, 2011 6:00 PM

Wellfleet Senior Center, Wellfleet, MA

Legend:

- = comment or question from attendee
- = response from Marine Fisheries

Public Questions:

- Helen Miranda Wilson, Wellfleet Shellfish Advisory Board: Did you consult or intend to follow the best management practices that the MAA put out in the last ten years, or shellfish management plans for municipalities?
 - Our hope is that shellfish restoration is going through the town, and that the town will share best management practices. But no, we did not look at the MAA in writing these guidelines.
- Bob Wallace, Fisherman & MAA: Is there anything different with these guidelines – did anything change?
 - For the majority, no. What's new is our willingness to work with towns on areas that are conditionally approved for nursery programs, restoration projects, and to come together over contaminated areas to provide safe shellfish to the public.

Public Comments:

- Bob Prescott, Mass Audubon: Regarding Restoration, on page 2 it says the possibility of other permitting – this is fairly clear, but what other kinds of permitting? Be as specific as possible in the final document – it makes me nervous to see it open-ended. Restoration I see as research also, such as replanting of an oyster population. What are proven techniques? Accepted/not accepted? Cultch accepted, but I don't know what else is.

- If you want to do research while restoring, it is ok to do that.
- Bob Prescott, Mass Audubon: Do I need two permits or one to do research and restoration?
 - You will need a municipal propagation permit. Restoration permits are tied in with the town propagation permit (longer term permit). Research permits are limited to three years (shorter term permit).
- Bob Prescott, Mass Audubon: There should be a provision for research projects (to start) that will be folded into an eventual restoration permit. Give a grace period with research to develop the best method and then move into restoration – or you won't get far in three years.
 - Our concern is with shellfish populations getting established in prohibited waters – we don't want to encourage that.
- Bob Prescott, Mass Audubon: Page 7, number 6 regarding artificial reefs – standard techniques mentioned cultch – but did not mention anchoring. Only pertain to aquaculture – but you do not mention anchoring.
 - That is a good point.
- Bob Prescott, Mass Audubon: Last page mentions special project permit – is this a standalone permit or a subset of the research permit?
- Our town is considering establishing a shellfish population – a restoration project in an area closed six months of the year - in lieu of water treatment to have the shellfish suck up pathogens. Permitted in closed area – how does it dovetail into the new guidelines?
 - It will have to be opened to shellfish after three years during conditionally approved times. There is also a marina operation – so the acreage around the marina must remain closed.
- This project is trying to study if oysters improve water quality. It is not in lieu of water treatment and is not intended to put reefs in. We just want to see if we can make a dent in it, and perhaps turn it into a model for other towns. It is an area with nothing on it, started cultching, firming up the bottom, which will help with dredging. It's never been a significant place to make a living – if in three years we can open it up to others, we will do that.
- Barbara Austin, Wellfleet Shellfish Advisory Board: When you mentioned aquaculture permit for private growers – do you mean leases?
 - License for the site – yes. You need a propagation permit for the seeds. It is one permit whether it's called aquaculture or propagation. If aquaculture, that means you are buying seed and growing. Either buy or raise seed, then sell it – this only specific to aquaculture – otherwise the permit is the same.
- Barbara Austin, Wellfleet Shellfish Advisory Board: Is there any place to comment to the State – I need to bring in and store oysters to keep them from harm in the winter. I have to have a tag for each bag. It is a waste of time and garbage – is there a way we could have a batch tag permit, so we don't have to fill out 50 tags?
 - Encourage MAA to request a meeting with Division of Marine Fisheries to request a change. The Environmental Police and the Department of Public Health would also need to be involved.

- Jim O’Connell, farmer: I grow oysters and come off the beach with 700 bags. I have tags, but not 700. It seems a little unreasonable to have to have a tag for each bag. I take good care of the oysters for health reasons. I am all for getting people together to work on this.
- Andrew Koch, Wellfleet Shellfish Dept.: Even if not year round, but from December to March to have a tag for the season – that could help with a busy, cold time.
- On page 10 it says that selectmen may specify yearly market value – on what basis can they tell me how much I can raise, what a reasonable market value is?
 - It is part of Massachusetts General Laws Chapter 130 that gives towns that authority.
- [Selectmen setting market value] is so that you can’t hold bottom. There are other criteria other than market value in some towns. In Wellfleet, we want to know the monetary value you’re putting into it.
- David Slack, Orleans Advisory Committee: Dale Leavitt’s’ comments should bear consideration. Some of what he has addressed is what we are bringing up.
- Barbara Austin, Wellfleet Shellfish Advisory Board: Who got the guidelines mailed to them, and how was this decided?
 - Asked for all aquaculture licenses, municipalities, permit holders, commercial fishermen. 3,500 pieces of mail sent out by The Nature Conservancy.
- Barbara Bruinooge, Selectmen & Grant Holder: I did not hear about this until today – my family has held a permit for many years.
- Helen Miranda Wilson, Wellfleet Shellfish Advisory Board: This is a serious oversight – Select Persons have regulatory oversight. None here in town had heard about it.
 - We expected that Select Boards would have heard about this through their Harbor Masters or Shellfish Constables.
- Joel (Boch?): Most of the guidelines pertain to things other than aquaculture. There is little about it in here. People around here are mostly interested in aquaculture – that’s why they are not here. We don’t have relays here.
 - The purpose of the meetings was to focus on planting, not aquaculture.
- Helen Miranda Wilson, Wellfleet Shellfish Advisory Board: The Wellfleet Shellfish Advisory Board is here tonight and will include this as a meeting of the Board.
- Barbara Austin, Wellfleet Shellfish Advisory Board: The Advisory Board is working on storage regulations, and segmenting the harbor up further – should we keep working with Jerry, or others here?
 - Yes, Jerry is the person to go to.

Suggestion & Comment Cards:

N/A

Shellfish Guidelines Public Listening Sessions Attendance List

Last Name	First Name	Organization/Affiliation	Session Location	Date
Gloucester				15
Wiitala	Wayne		Gloucester	9/8/2011
Sargent	David	Gloucester Shellfish Dept.	Gloucester	9/8/2011
Hartley	Steve	Essex Shellfish Dept.	Gloucester	9/8/2011
Schenk	Max	Gloucester Health Dept.	Gloucester	9/8/2011
Perley	Dan	Rowley Aquaculture	Gloucester	9/8/2011
Schillari	Chris	DMF	Gloucester	9/8/2011
Grundstrom	Jack	Rowley	Gloucester	9/8/2011
Lord	Michael	Rowley	Gloucester	9/8/2011
Saunders	Pat	Rowley	Gloucester	9/8/2011
Grundstrom	John H.	Rowley	Gloucester	9/8/2011
O'Donnell	Lisa	Essex Board of Selectmen	Gloucester	9/8/2011
Konisky	Ray	The Nature Conservancy	Gloucester	9/8/2011
Brophy	Bob		Gloucester	9/8/2011
Diodati	Paul	DMF	Gloucester	9/8/2011
Rousseau	Mark	DMF	Gloucester	9/8/2011
Buttner	Joe	Salem State University	Gloucester	9/8/2011
Evans	Tay	DMF	Gloucester	9/8/2011
Buchsbaum	Robert	Mass Audubon	Gloucester	9/8/2011
Phelan	R	M Aquaculture	Gloucester	9/8/2011
BOSTON				15
		Town of Plymouth, Environmental		
McCall	Kerin	Management	Boston	9/13/2011
Eustis	Chris	The Nature Conservancy	Boston	9/13/2011
Frankic	Anamarija	UMass Boston	Boston	9/13/2011
Loakley	Daniel	EEOS Umass Boston	Boston	9/13/2011
Cornelius	Matt	UMass Boston Student	Boston	9/13/2011
Felix	Curt	Town of Wellfleet	Boston	9/13/2011
Alcantara	Adonis	Thompson Island Ambassador	Boston	9/13/2011
Yee	Taejin	Thompson Island Ambassador	Boston	9/13/2011
Bowen	Sean	MDAR	Boston	9/13/2011
Johnson	Bill	UMass Boston	Boston	9/13/2011
Lewenberg	Carolyn	Thompson Island Ambassador	Boston	9/13/2011
Corson	Kenneth	Hingham Harbormaster	Boston	9/13/2011
Stanley	Bob	Master Digger Boston	Boston	9/13/2011
Aronstrong	Nyasia	Thompson Island Ambassador	Boston	9/13/2011
Thompson	Sean	UMB/USCG/DMF	Boston	9/13/2011
BOURNE				12
Leavitt	Dale	Roger Williams University	Bourne	9/15/2011
Moles	J.	DMF	Bourne	9/15/2011
Winkler	Devon	DMF	Bourne	9/15/2011
Churchill	Neil	DMF	Bourne	9/15/2011
Cox	Timothy	Fairhaven, MA Shellfish Warden	Bourne	9/15/2011
Zweig	Ron	Coonamessett Farm FDN	Bourne	9/15/2011
Sholowitz	Ron	Coonamessett Farm	Bourne	9/15/2011

Shellfish Guidelines Public Listening Sessions Attendance List

Last Name	First Name	Organization/Affiliation	Session Location	Date
McGuire	Chris	TNC	Bourne	9/15/2011
Macfarlane	Sandy	Coastal Resource Specialist	Bourne	9/15/2011
Reitsma	Josh	Cape Cod Cooperative Extension	Bourne	9/15/2011
Pittsley	Dennis	Town of Sandwich, Dept. of Natural Resources	Bourne	9/15/2011
Galkowski	Mark S.		Bourne	9/15/2011
Brodeur	Cathy		Bourne	9/15/2011
Feeney	Eileen	MA DMF	Bourne	9/15/2011
Heffernon	David	Fisherman	Bourne	9/15/2011
Marcotti	Tom	Barnstable Natural Resources	Bourne	9/15/2011
HYANNIS				16
Bowen	Sean	MDAR Nantucket Marine and Coastal Resources	Hyannis	9/20/2011
Riley	Tara		Hyannis	9/20/2011
Dunbar	M.	Dunbar Aqua Farm	Hyannis	9/20/2011
Clark	Lenny	BARS	Hyannis	9/20/2011
Nickerson	Sue	Grower	Hyannis	9/20/2011
Loo	Matt	Barnstable Natural Resources	Hyannis	9/20/2011
Clement	Rachael	Barnstable Natural Resources	Hyannis	9/20/2011
Kumin	Max	Individual	Hyannis	9/20/2011
Counsell	Lindsey	Three Bays Preservation Nantucket Marine and Coastal Resources	Hyannis	9/20/2011
Carlson	Jeff		Hyannis	9/20/2011
Clark	Heidi	Cape Cod Cooperative Extension + WHOL Sea Grant	Hyannis	9/20/2011
Ostrowski	Matt	Shell Fish Committee	Hyannis	9/20/2011
Waitcomb	Craig	Town of Chatham/ Self	Hyannis	9/20/2011
Hancock	Boze	TNC	Hyannis	9/20/2011
Ives	Ian	Mass Audubon	Hyannis	9/20/2011
Tobey	Quan	Mashpee Wampanoag Tribe	Hyannis	9/20/2011
Clark	Kris	Mashpee Wampanoag Tribe	Hyannis	9/20/2011
WELLFLEET				23
Moles	Jerry	DMF	Wellfleet	9/22/2011
O'Neil	Terry	DMF	Wellfleet	9/22/2011
Mendes	John	DMF	Wellfleet	9/22/2011
Koch	Andrew	Wellfleet Shellfish Dept.	Wellfleet	9/22/2011
Macfarlane	Sandy	Coastal Resource Specialist	Wellfleet	9/22/2011
Franke	Larry	Shellfish Worker	Wellfleet	9/22/2011
Hitchcock	Ned	Wellfleet Wastewater Planning	Wellfleet	9/22/2011
Prescot	Bob	Mass Audubon	Wellfleet	9/22/2011
Cummings	Andrew	Grower Wellfleet	Wellfleet	9/22/2011
B.	Robert	Grower Wellfleet	Wellfleet	9/22/2011
Barrio	Kristin	Shellfish Grant Worker	Wellfleet	9/22/2011

Shellfish Guidelines Public Listening Sessions Attendance List

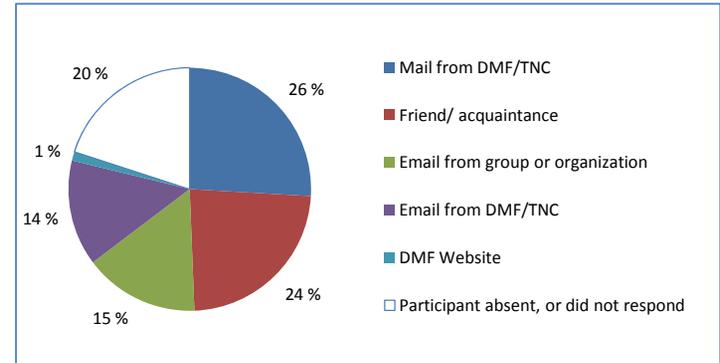
Last Name	First Name	Organization/Affiliation	Session Location	Date
Mankevetch	John	Wellfleet Asst. Shellfish Constable	Wellfleet	9/22/2011
Faherty	Mark	Mass Audubon (Wellfleet Bay)	Wellfleet	9/22/2011
Brennessel	Barbara	Wellfleet Shellfish Advisory Board	Wellfleet	9/22/2011
Austin	Barbara	Wellfleet Shellfish Advisory Board	Wellfleet	9/22/2011
Jenkins				
Slack	David		Wellfleet	9/22/2011
	Helen			
Wilson	Miranda	Wellfleet Shellfish Advisory Board	Wellfleet	9/22/2011
M.	Nate	Person interested	Wellfleet	9/22/2011
?	Joel	Shellfisherman	Wellfleet	9/22/2011
Bruinooge	Berta	Selectman and grant holder	Wellfleet	9/22/2011
Murphy	Diane	Cape Cod Cooperative Extension	Wellfleet	9/22/2011
Wallace	Bob	Fisherman/MAA BOD	Wellfleet	9/22/2011
Barrio	Will	Fisherman	Wellfleet	9/22/2011
O'Connell	Jim	Farmer	Wellfleet	9/22/2011
Sandblom	Russ	Farmer	Wellfleet	9/22/2011
Avery	Sheila	Farmer	Wellfleet	9/22/2011

**Listening Process
Key Pad Polling Results**

September 2011

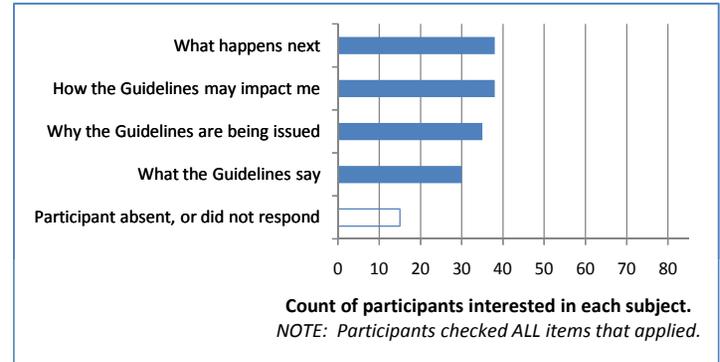
**Division of Marine Fisheries
Shellfish Planting Guidelines**

	Boston	Bourne	Gloucester	Hyannis	Wellfleet	Grand Total
Key Pads in Use	14	14	17	17	23	85
How did you first hear about tonight's listening session?						
Mail from DMF/TNC	14 %	36 %	24 %	35 %	22 %	26 %
Friend/ acquaintance	29 %	14 %	29 %	24 %	22 %	24 %
Email from group or organization	21 %	7 %	18 %	18 %	13 %	15 %
Email from DMF/TNC	21 %	21 %	0 %	18 %	13 %	14 %
DMF Website	0 %	0 %	6 %	0 %	0 %	1 %
Participant absent, or did not respond	14 %	21 %	24 %	6 %	30 %	20 %
Grand Total	100 %					

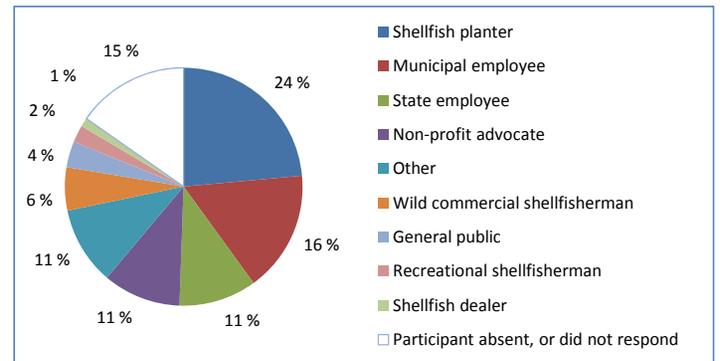


** Note: Participants checked ALL items that applied.*

What do you hope to learn this evening?						
What happens next	7	6	7	9	9	38
How the Guidelines may impact me	3	5	7	11	12	38
Why the Guidelines are being issued	3	8	5	8	11	35
What the Guidelines say	5	4	5	7	9	30
Participant absent, or did not respond	3	3	3	1	5	15



Which best describes you?						
Shellfish planter	0 %	14 %	24 %	29 %	39 %	24 %
Municipal employee	14 %	7 %	24 %	24 %	13 %	16 %
State employee	14 %	29 %	12 %	6 %	0 %	11 %
Non-profit advocate	14 %	7 %	6 %	18 %	9 %	11 %
Other	14 %	21 %	0 %	6 %	13 %	11 %
Wild commercial shellfisherman	0 %	14 %	18 %	0 %	0 %	6 %
General public	21 %	0 %	0 %	0 %	0 %	4 %
Recreational shellfisherman	0 %	0 %	0 %	12 %	0 %	2 %
Shellfish dealer	7 %	0 %	0 %	0 %	0 %	1 %
Participant absent, or did not respond	14 %	7 %	18 %	6 %	26 %	15 %
Grand Total	100 %					

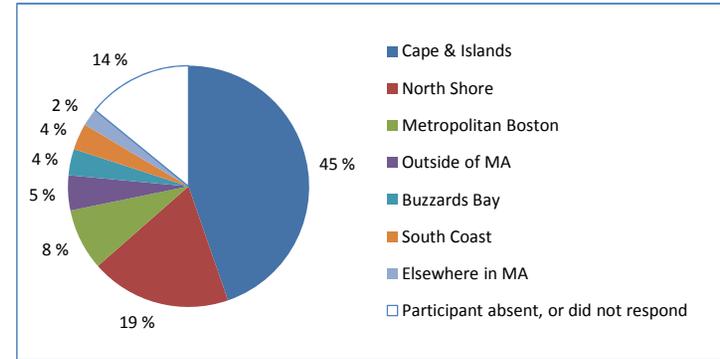


**Listening Process
Key Pad Polling Results**

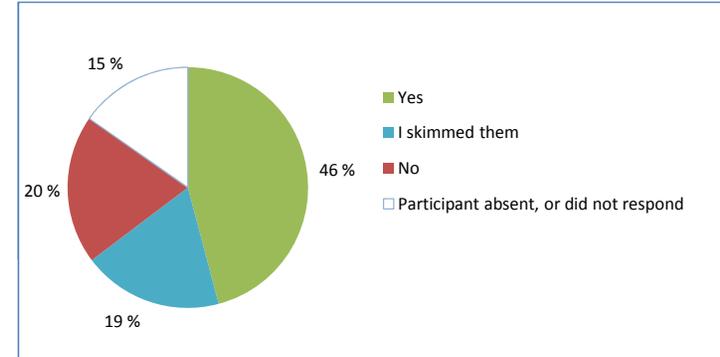
September 2011

**Division of Marine Fisheries
Shellfish Planting Guidelines**

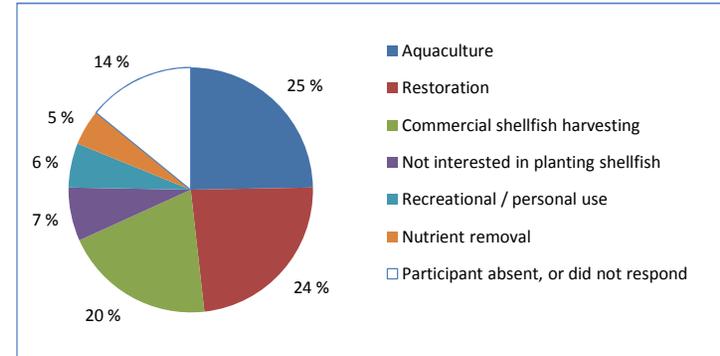
	Boston	Bourne	Gloucester	Hyannis	Wellfleet	Grand Total
Key Pads in Use	14	14	17	17	23	85
Where do you live?						
Cape & Islands	0 %	43 %	0 %	76 %	83 %	45 %
North Shore	7 %	7 %	82 %	0 %	0 %	19 %
Metropolitan Boston	50 %	0 %	0 %	0 %	0 %	8 %
Outside of MA	14 %	0 %	0 %	12 %	0 %	5 %
Buzzards Bay	0 %	21 %	0 %	0 %	0 %	4 %
South Coast	7 %	7 %	0 %	6 %	0 %	4 %
Elsewhere in MA	14 %	0 %	0 %	0 %	0 %	2 %
Participant absent, or did not respond	7 %	21 %	18 %	6 %	17 %	14 %
Grand Total	100 %					



	Boston	Bourne	Gloucester	Hyannis	Wellfleet	Grand Total
Have you read the Guidelines?						
Yes	43 %	57 %	59 %	41 %	35 %	46 %
I skimmed them	7 %	21 %	6 %	24 %	30 %	19 %
No	29 %	7 %	24 %	29 %	13 %	20 %
Participant absent, or did not respond	21 %	14 %	12 %	6 %	22 %	15 %
Grand Total	100 %					



	Boston	Bourne	Gloucester	Hyannis	Wellfleet	Grand Total
Are you interested in planting shellfish primarily for...						
Aquaculture	7 %	21 %	18 %	47 %	26 %	25 %
Restoration	50 %	14 %	18 %	18 %	22 %	24 %
Commercial shellfish harvesting	14 %	14 %	47 %	0 %	22 %	20 %
Not interested in planting shellfish	14 %	7 %	6 %	0 %	9 %	7 %
Recreational / personal use	0 %	14 %	0 %	18 %	0 %	6 %
Nutrient removal	0 %	7 %	0 %	12 %	4 %	5 %
Participant absent, or did not respond	14 %	21 %	12 %	6 %	17 %	14 %
Grand Total	100 %					

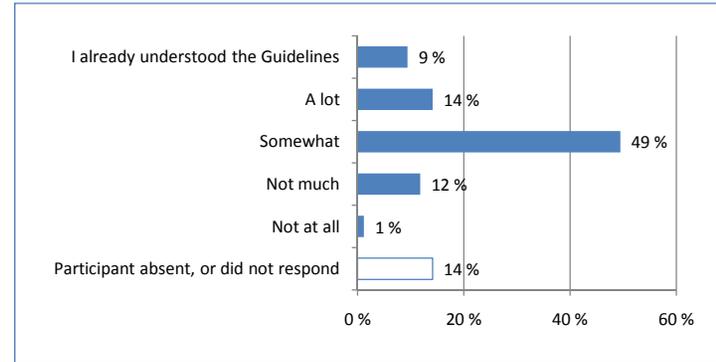


**Listening Process
Key Pad Polling Results**

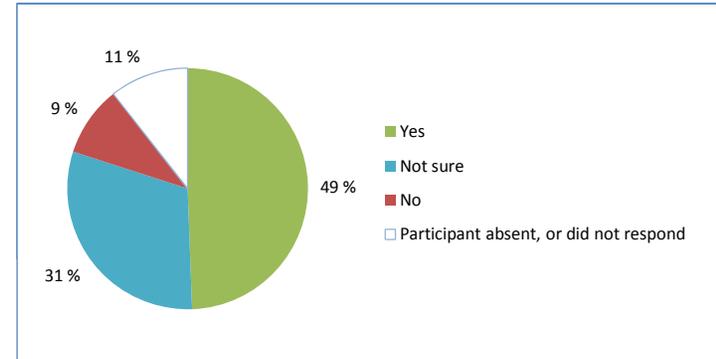
September 2011

**Division of Marine Fisheries
Shellfish Planting Guidelines**

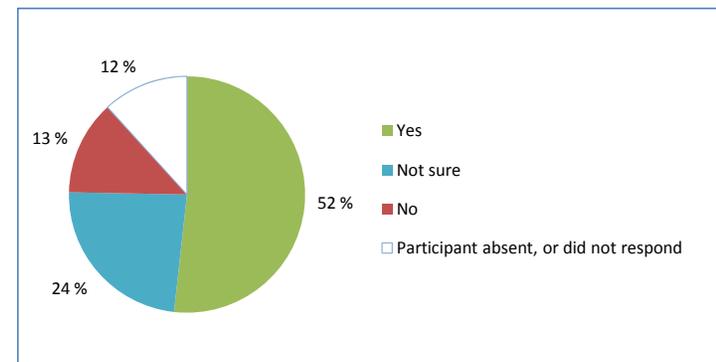
	Boston	Bourne	Gloucester	Hyannis	Wellfleet	Grand Total
Key Pads in Use	14	14	17	17	23	85
Did the presentation and Q&A improve your understanding of the Guidelines?						
I already understood the Guidelines	7 %	14 %	6 %	6 %	13 %	9 %
A lot	21 %	14 %	12 %	12 %	13 %	14 %
Somewhat	36 %	36 %	59 %	53 %	57 %	49 %
Not much	14 %	0 %	18 %	18 %	9 %	12 %
Not at all	0 %	0 %	0 %	6 %	0 %	1 %
Participant absent, or did not respond	21 %	36 %	6 %	6 %	9 %	14 %
Grand Total	100 %					



	Boston	Bourne	Gloucester	Hyannis	Wellfleet	Grand Total
Generally, are you satisfied with the draft Guidelines?						
Yes	29 %	36 %	59 %	59 %	57 %	49 %
Not sure	14 %	36 %	35 %	29 %	35 %	31 %
No	29 %	7 %	0 %	12 %	4 %	9 %
Participant absent, or did not respond	29 %	21 %	6 %	0 %	4 %	11 %
Grand Total	100 %					



	Boston	Bourne	Gloucester	Hyannis	Wellfleet	Grand Total
Will the Guidelines make the shellfish planting permitting process more clear?						
Yes	29 %	50 %	82 %	41 %	52 %	52 %
Not sure	14 %	21 %	12 %	35 %	30 %	24 %
No	29 %	0 %	6 %	24 %	9 %	13 %
Participant absent, or did not respond	29 %	29 %	0 %	0 %	9 %	12 %
Grand Total	100 %					

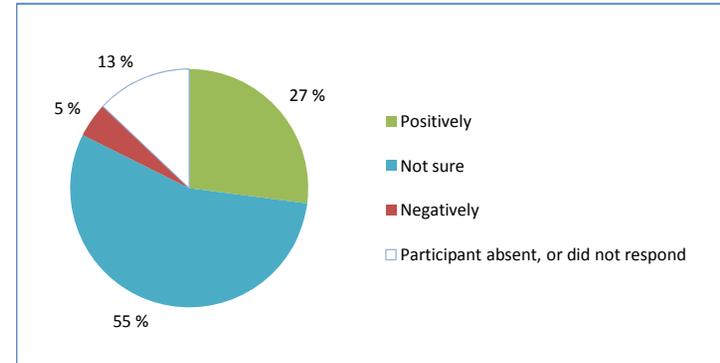


**Listening Process
Key Pad Polling Results**

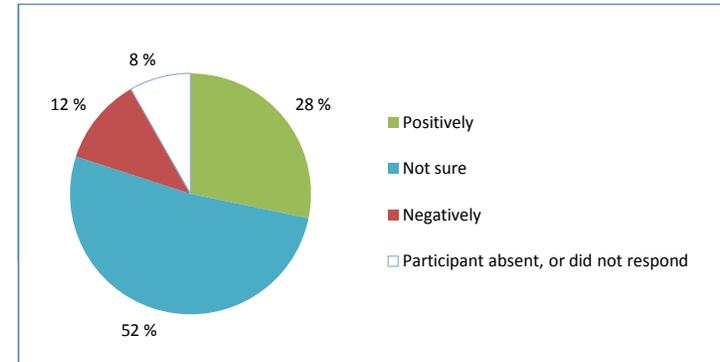
September 2011

**Division of Marine Fisheries
Shellfish Planting Guidelines**

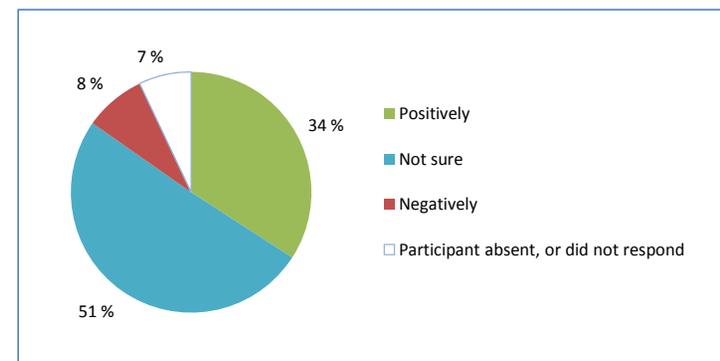
	Boston	Bourne	Gloucester	Hyannis	Wellfleet	Grand Total
Key Pads in Use	14	14	17	17	23	85
Do you think the Guidelines will impact you?						
Positively	21 %	29 %	29 %	29 %	26 %	27 %
Not sure	43 %	43 %	65 %	65 %	57 %	55 %
Negatively	21 %	0 %	0 %	6 %	0 %	5 %
Participant absent, or did not respond	14 %	29 %	6 %	0 %	17 %	13 %
Grand Total	100 %					



	Boston	Bourne	Gloucester	Hyannis	Wellfleet	Grand Total
Do you think the Guidelines will benefit shellfish planting for commercial purposes?						
Positively	36 %	21 %	29 %	29 %	26 %	28 %
Not sure	21 %	50 %	65 %	59 %	57 %	52 %
Negatively	29 %	7 %	6 %	12 %	9 %	12 %
Participant absent, or did not respond	14 %	21 %	0 %	0 %	9 %	8 %
Grand Total	100 %					



	Boston	Bourne	Gloucester	Hyannis	Wellfleet	Grand Total
Do you think the Guidelines will benefit shellfish planting for recreational purposes?						
Positively	36 %	43 %	35 %	35 %	26 %	34 %
Not sure	29 %	21 %	59 %	59 %	70 %	51 %
Negatively	21 %	14 %	6 %	6 %	0 %	8 %
Participant absent, or did not respond	14 %	21 %	0 %	0 %	4 %	7 %
Grand Total	100 %					



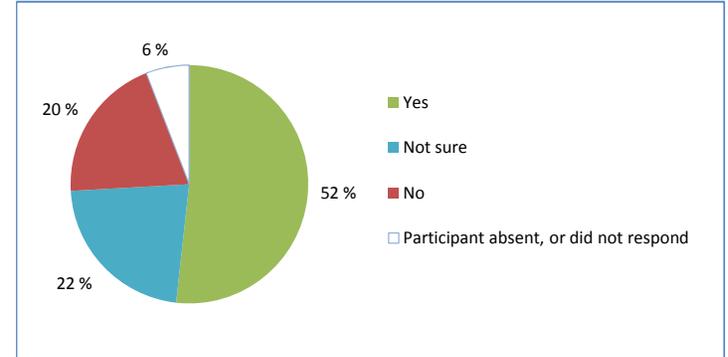
**Listening Process
Key Pad Polling Results**

September 2011

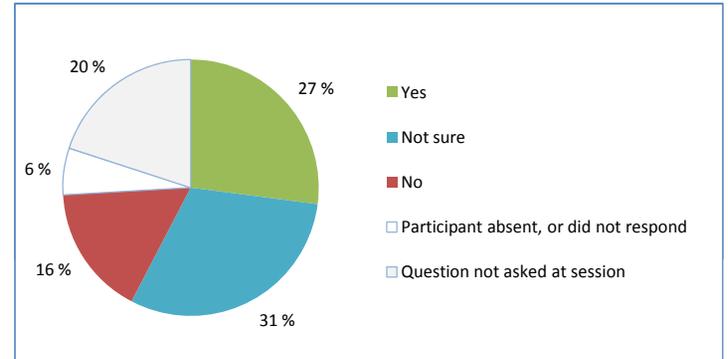
**Division of Marine Fisheries
Shellfish Planting Guidelines**

	Boston	Bourne	Gloucester	Hyannis	Wellfleet	Grand Total
Key Pads in Use	14	14	17	17	23	85

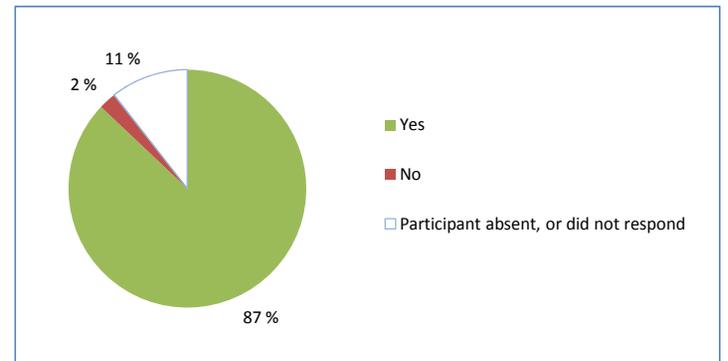
Do you think the Guidelines will protect public health?						
Yes	57 %	29 %	59 %	59 %	52 %	52 %
Not sure	14 %	21 %	29 %	24 %	22 %	22 %
No	21 %	29 %	12 %	18 %	22 %	20 %
Participant absent, or did not respond	7 %	21 %	0 %	0 %	4 %	6 %
Grand Total	100 %					



Do you think the Guidelines will benefit ecological services?						
Yes	36 %	36 %	0 %	24 %	39 %	27 %
Not sure	36 %	29 %	0 %	59 %	30 %	31 %
No	21 %	14 %	0 %	18 %	26 %	16 %
Participant absent, or did not respond	7 %	21 %	0 %	0 %	4 %	6 %
Question not asked at session	0 %	0 %	100 %	0 %	0 %	20 %
Grand Total	100 %					



Did you have an opportunity to ask questions and offer comments?						
Yes	57 %	79 %	100 %	100 %	91 %	87 %
No	14 %	0 %	0 %	0 %	0 %	2 %
Participant absent, or did not respond	29 %	21 %	0 %	0 %	9 %	11 %
Grand Total	100 %					



APPENDIX C

Written Comments Submitted via email and U.S. Postal Mail

(Comments are compiled in alphabetical order.)

Suggestions to the Shellfish Planting Guidelines¹

- Identify the folks who drafted this document (titles)
- Include an appendix with the acronyms used.
 - There are some used without a definition (MA DEP; MA DEP)
- Pg. 4: Propagation... add also known as municipal aquaculture
- Refer to MA Division of Marine Fisheries/ DMA/ *Marine Fisheries* by one name. The different references to the same agency are confusing.
- Pg.5: DMF’s objective to minimize conflicts of competing uses of land under water may conflict with each municipality’s jurisdiction to manage its own resources
- Pg. 5: 9th line from the bottom—I think that it is intended to say “affect”, not “effect”
- Pg. 5: DMF’s concern about shellfish plantings not creating enforcement problems will stifle shellfish plantings overall. Enforcement is a variable which DMF can’t control. Shellfish plantings are working to backfill the loss of shellfish from many embayments now. By banishing plantings in dirty waters, DMF limits the capacity for shellfish to filter the waters to a clean status. I agree with Dr. Dale Leavitt, that the overall denial of shellfish plantings due to concerns about enforcement is denying these beneficial plantings due to the perceived or real shortcomings of another agency or department. There’s a lot that wouldn’t be done at all if activities were denied because something bad “might” happen.
- Pg. 6: Aquaculture in Conditionally Closed areas should be allowed to clean the waters, especially if it is done in conjunction with the local shellfish constable. Aquaculture in conditionally open waters can serve to create the cleaner waters that we all hope for in our embayments.
- Pg. 6: Research Projects should be allowed, even if they establish new shellfish populations. This proposed regulation belies the stated principle on page 5: Marine Fisheries supports and participates in propagation and enhancement efforts....cooperates with researchers...
- I am supportive of managed shellfish gardening programs, even though DMF is not in favor of them. It’s a huge educational opportunity that would likely end up with a more educated citizenry on our waterfronts, something that would benefit DMF and all shellfish issues.

¹ This individual requested anonymity

From:**Sent:** Monday, October 03, 2011 2:33 PM**To:** Diodati, Paul (FWE)**Cc:** micheal.hickey@state.ma.us; Shields, Thomas (FWE)**Subject:** Shellfish Planting Guidelines

Paul Diodati:

Director DMF.

RE:Shellfish Planting Guidelines

I am writing as the new president of the Massachusetts Shellfish Officers Association, elected last March at our annual meeting. Unfortunately I did not have the time to attend the Talking Sessions held last month. Other board members were able to make them and we wanted to send in the following comments.

First the guidelines were a good idea to place all rules and regulations that exist on the state level in one publication.

They clearly indicate that shellfish regulation is a combination of both state and local control, a partnership that we as an association have helped nurture over the years.

I am sure that you will receive many comments on this document. I would like to request that if any changes are proposed in the future that you contact me so that I can bring it to the attention of the Board Of Directors and the General Membership of the MSOA.

Thank you for your time in this important matter

Paul L. Bagnall

President

Massachusetts Shellfish Officers Association



Draft Shellfish Planting Guidelines

Barbara Brennessel

Fri, Sep 23, 2011 at 1:10 PM

To: MAsheffishguidelines@gmail.com

Cc: rprescott mfaherty

I am a member of the Wellfleet Shellfish Advisory Board. I attended the meeting in Wellfleet on Sept. 22. I heard about it the day before the meeting from another Board member. (I agree with others who suggested that all members of town Boards of Selectmen (as well as their representative Boards such as Shellfish Advisory Boards) should be notified of such meetings.

I applaud the DMF for clarifying the shellfish planting regulations. My main concern is the permitting process for oyster reef restoration efforts. Although the chief objective of some restoration programs is to provide ecosystem services, rather than supporting the fishery, I understand, given the mission of the DMF, why DMF mandates that the restoration areas be open to shellfishing. However, I believe that the 3 year permit period is inappropriate. Furthermore, I think that no-take areas can actually enhance oyster set in harvest areas as well as contribute to the genetic diversity of Wellfleet oysters.

I have worked as a volunteer and researcher on Mass. Audubon's oyster reef restoration in Wellfleet. As Bob Prescott mentioned at the meeting, there is a steep learning curve in terms of figuring out the best methods to employ in these endeavors. It will be many years before the restoration site actually resembles a "true" reef.

I also know many of the shellfishermen in Wellfleet. If restoration areas are opened to shellfishing, these areas will, in the local parlance, be immediately "hammered." This intense level of harvest will not allow the reef to persist and to build up enough height to prevent it from being covered by siltation caused by natural processes of sediment transport.

Natural oyster reefs were formed after decades, even centuries of oysters building upon other oysters. Three years is not enough time. The funding and effort put into oyster reef restoration projects will be totally wasted if the reefs are not given a chance to establish themselves.

For Wellfleet, where wild harvest is still an important commercial enterprise, I suggest that the DMF consider a new category of permit for oyster "feeder" sanctuaries where reefs can build up, oysters can mature and spawn can be provided so that oysters can settle in other areas of Wellfleet Harbor that are currently open to commercial harvest.

I hypothesize that most of the oyster larvae that settle in Wellfleet Harbor are the product of aquacultured oysters which are becoming increasingly inbred to provide fast growth. Furthermore, many of the aquaculturists are growing sterile triploids, which do not contribute any offspring to the local wild population. Oyster sanctuaries, established over a long period of time, have the potential to enhance the existing stocks of wild Wellfleet oysters as well as increase their genetic diversity, thus hedging against oyster diseases that may spread through the area and destroy the commercial harvest.

I hope, that in reviewing the propagation guidelines, the DMF will consider a special category of permit for oyster sanctuaries that will indirectly enhance commercial shellfishing in Wellfleet.

--

Barbara Brennessel, Ph.D
Department of Biology
Wheaton College
Norton, MA 02766



Diane C. Murphy
Fisheries & Aquaculture Specialist
Cape Cod Cooperative Extension
& Woods Hole Sea Grant
PO Box 367
Barnstable, MA 02630 USA
508 375-6953

September 30, 2011

J. M. Hickey, et al.
Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Department of Fish and Game
Massachusetts Division of Marine Fisheries
MAshellfishguidelines@gmail.com

Re: Comments on Marine Fisheries Draft Shellfish Planting Guidelines

On behalf of Cape Cod Cooperative Extension and Woods Hole Sea Grant, we would like to respectfully submit our comments on the MA Division of Marine Fisheries Draft Shellfish Planting Guidelines.

Sincerely,

A handwritten signature in cursive script that reads 'Diane C. Murphy'.

Diane C. Murphy, Fisheries & Aquaculture Specialist
Joshua Reitsma, Marine Program Specialist
Heidi Clark, Marine Resources Specialist
Cape Cod Cooperative Extension & Woods Hole Sea Grant

Comments on MA DMF Shellfish Planting Guidelines:

Diane Murphy:

- Due to the nature of research it is often through 'trial and error' that new methods are tested. Is there a mechanism for renewing and/or extending a Research Permit at the end of three years to enable further testing of methods? For instance, an agency interested in testing novel reef designs to determine optimal design for a particular site might require more than 3 years to assess their design(s) given the complexities of site characteristics. A proven method elsewhere may or may not be applicable and only through rigorous testing are the most appropriate designs identified.

- Prior conversations with MA Division of Marine Fisheries have indicated that shellfish gardening would not be permissible. In the Draft Shellfish Planting Guidelines, *Allowable Shellfish Planting Practices* section, no. 5 identifies conditions that may allow for shellfish gardening. Does DMF have specific conditions that will allow this activity and would all shellfish produced through this activity in approved waters be required to augment the public fishery?

Joshua Reitsma:

- It would be beneficial for the continued technical and economic development of the shellfish aquaculture industry to have an application process for potential aquaculture licenses in state waters outside the areas under municipal control where there is an existing process.
- Under “Allowable Shellfish Planting Practices” it is mentioned municipalities may use contaminated (prohibited or restricted) waters as nursery areas with a plan from Marine Fisheries. It would be of great benefit to those interested in applying this process to know what Marine Fisheries will look for in such a plan. For instance, knowing how long a period they can be grown in these areas, or to what size would be helpful for municipalities before going to Marine Fisheries for a “management plan” or “Contaminated Transplant Permit”. It would also be beneficial to have an outline of what contaminants shellfish should be tested for before considering a relay program.
- Understanding Chapter 130 sec 54 puts a limit on closing areas of harvestable shellfish for 3 years, is there any value in allowing shellfish populations in certain areas to go without harvest for more than 3 years and amending the statute for certain cases considering the increased pressure on shellfish resources?
- Does steam processed cultch need to be aged for a year?

Heidi Clark:

- It would be helpful to add a brief description of the criteria used to classify areas as Approved, Conditionally Approved, Restricted, Conditionally Restricted, and Prohibited. This would aid municipalities and individuals in understanding the rationale underlying differential management and propagation restrictions in these areas.
- Similarly, a description of the criteria used to designate areas as Open or Closed would help.
- Footnotes 1 and 2 on page 6: “*Marine Fisheries* does not support planting activities that create new, self-sustaining populations in Prohibited or Restricted waters due to the risk of attractive nuisance and other enforcement and public health concerns. Without a municipal contaminated area management plan in place, these activities are not allowed.” and

“These types of projects should not be designed to create a new, self-sustaining population of shellfish in contaminated waters. If they do, the population may be removed following the completion of the project. Exceptions will be considered if projects are conducted with municipal approval and under a municipal propagation permit. If in contaminated waters, they may require cooperation of a municipality under a contaminated area management plan. These permits include a monitoring and reporting component.”

should be moved to the body of the report, or contained in a text box to indicate their importance because this is an increasingly important issue as municipalities examine opportunities for shellfish restoration in support of water quality management. Readers need to be aware of this so that confusion on these two points is minimized.

- Footnote 3 should also be moved to the body of the text as again this is an important issue and should be prominently featured with your guidelines.



planting guide lines

capeoyster@

Mon, Sep 26, 2011 at 7:57 AM

To: MAsheffishguidelines@gmail.com

I don't believe shellfish gardening, that is being tried in other states, is a good idea. There is no way to control any part of the gardening process. An easier way to help the environment and help employment in the state would be to allow more acreage per farm. One farm can do more for the environment than all the gardens in RI.

Al Surprenant

Cape Cod Oyster Company



Comments regarding the Sept. 22 Wellfleet meeting

Capt. R. Andrew Cummings

Thu, Sep 29, 2011 at 11:46 AM

To: MAshellfishguidelines@gmail.com

To whom it may concern,

My only criticism is regarding the classification of propagation activities:

- Shellfish planter
- Aquaculturist
- Commercial Grower
- Restoration

Aren't all of these categories/activities considered "aquaculture"?

I do understand that shellfish is sometimes planted without the intent to ever harvest (restoration and water quality projects). I think that perhaps this list could cause some confusion. Perhaps this list could be changed to the heading of "Types of Aquaculture Activities" with the specified differences listed below the heading (Planter, Grower, Restoration, etc.).

I am a commercial grower, but consider myself an Aquaculturist.

Thank you for your time and consideration.

Best,

Andrew Cummings

Wellfleet, MA

www.outercapewaterman.com

From: Bowen, Sean (AGR)
Sent: Thursday, August 25, 2011 11:11 AM
To: Shields, Thomas (FWE); McKiernan, Dan (FWE); Hickey, Michael (FWE)
Cc: 'Scott.Souares@state.ma.us'; Kennedy, Gerard (AGR)
Subject: Shellfish Planting Guidelines

Hi Tom,

It was nice speaking with you at the New Bedford office on Tuesday. As we discussed, I had several concerns regarding DMF's Shellfish Planting Guidelines, and I wanted to bring them to DMF's attention prior to the upcoming listening sessions. I am hoping that we may be able to discuss these, and perhaps modify the draft to address areas of mutual interest.

Sincerely,

Sean

1. On Page 5, a definition of "aquaculture" is presented which is different from the definition presented in 322 CMR 15 (Management of Marine Aquaculture). The new definition includes ONLY privately licensed, commercial shellfish production, and EXCLUDES "Propagation" and "Research Projects". (which had previously been considered "aquaculture". This is a rather major change in the definition, and should be given greater consideration prior to its acceptance as rule.

2. In the footnote on page 7, the Guideline states that "the licensing mechanism for aquaculture is for commercial purposes". I do not believe this to be the case. MGL 130 Sec 57 does not require that aquaculture is for commercial purposes - it **allows for this, but does not require it**. Chapter 130, Sec 65 states that "The city council or selectmen may specify a reasonable yearly market value to be produced", **but they are not required to do so**. The fourth paragraph on page 10 states that "Any other use of a private shellfish grant license is inconsistent with the intent of the statute". It would seem that if this were the intent of the statute, it would have been clearly stated in the language – it is not.

In fact, 322 CMR 15, (promulgated under authority of Ch 130 sec 57) distinguishes between "aquaculture" and "commercial aquaculture" in the definitions section:

Aquaculture means the farming of aquatic marine organisms including, but not limited to fish, mollusks, crustaceans, echinoderms and plants. Farming implies some sort of intervention in the rearing process to enhance production including, but not limited to controlled propagation, feeding, protection from predators, etc.

Commercial aquaculture means marine aquaculture to produce marine organisms intended for sale. Commercial aquaculture implies individual or corporate ownership of the stock being cultivated.

Clearly "non-commercial" (i.e. 'hobby') farms were previously (and are currently) recognized.

3. The Guideline terms any shellfish growing area which is not classified as "Approved", as "contaminated". In Massachusetts, there are numerous shellfish farms located in "Conditionally Approved" areas. With respect to these areas, the Guideline (on page 4) states that "When open, it is

treated as an Approved Area.” Perhaps a “blanket” consideration of “contaminated” could be rethought. A farmer growing in such an area, and abiding by terms of the “Conditional” approval would not want their product deemed “contaminated”.

Sean F. Bowen
Food Safety and Aquaculture Specialist
Massachusetts Department of Agricultural Resources



Draft Shellfish Planting Guidelines comment

Dave Sargent

Thu, Sep 22, 2011 at 7:59 AM

To: MAshellfishguidelines@gmail.com

Cc: Tamera Cominelli

It is quite useful to have all the shellfish planting guidelines contained within one easily accessible document. However I'm greatly concerned about providing adequate enforcement to protect public health when individuals are allowed to plant shellfish within prohibited shellfish growing areas.

Dave Sargent
Gloucester Shellfish Constable

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Dale F. Leavitt, Ph.D.
East Falmouth, MA 02536

17 September 2011

Division of Marine Fisheries
251 Causeway Street, Suite 400
Boston, MA 02114

To Whom It May Concern,

I am writing to provide comment on the draft Shellfish Planting Document currently being developed by MA-DMF to instruct interested parties on the current processes and regulations addressing shellfish planting in the Commonwealth of Massachusetts.

To introduce myself, I am a resident of Falmouth, MA. I am an Associate Professor of Marine Biology at Roger Williams University (Bristol, RI) and have spent the past 30 years researching and advising the shellfish industry in Massachusetts and the region. I am also a manager of a large (by New England standards) oyster gardening and shellfish restoration program in Rhode Island. In that capacity, I have also been advising a few municipalities in southeastern Massachusetts on how to initiate oyster restoration programs in their towns.

To start, I would like to commend DMF for producing this document. As I mentioned, I have been working with Mass municipalities on shellfish restoration strategies and the path to implementing some of these programs has not always been well understood. This document will provide a valuable service to towns, NGOs and private individuals who may be inclined to attempt shellfish planting efforts in their area. By outlining all of the relevant policies and regulations in one document, it provides a clear path for anyone interested in shellfish planting and will facilitate the process. Thank you for this endeavor.

However, I have a few observations of the document that I think either needs to be clarified and/or modified to be more effective and responsive to the current state of shellfish planting. I will provide these comments in the order in which they are addressed in the Guidelines.

Shellfish Planting Definitions:

One more category of propagation activities needs to be added to the list of definitions and recognized throughout the document,

Enhancement: means propagation conducted to augment an existing shellfish resource in a water body.

I also question whether it would be important to designate the source of the shellfish as applied to the various propagation activities, for the source of the product may have some influence on the means by which the shellfish are handled, transported, and managed. For example: Relays/Transplants generally are accomplished using wild caught animals that are moved from one site to another; while

Enhancement/Restoration/Aquaculture generally relies on artificially propagated shellfish, from a hatchery, that are normally cultured under controlled conditions for some portion of their life cycle (usually from hatchery through nursery.) Mitigation can result from either source of seed. These distinctions can be important in terms of disease/ANS transportation and genetic sourcing of planted shellfish.

Principles:

As currently written:

- Marine Fisheries *supports and participates in these activities when they do not disrupt traditional fishing practices, do not adversely effect [sic] existing shellfish populations or habitat and do not create enforcement or potential public health problems.*

Aquaculture and restoration are the “new kids on the block” with respect to traditional marine related activities and, as such, have been relegated to a second class status when being introduced into new areas. I am bothered by this statement continuing to propagate this attitude as there are situations where aquaculture or restoration may be a more appropriate use of the area than a previous activity. While traditional uses need to be considered, they do not need to trump any proposed new activity for an area. Therefore, this statement should be struck or reworded to give shellfish planting equal status to traditional fishing and other uses in an area.

I also do not agree that creating an enforcement problem is justification for denying a planting activity. Enforcement is an automatic consequence of any new regulation or activity and needs to be considered as the implementation of the planting goes forward. However, by denying an activity on the grounds of enforcement, you are denying a potentially beneficial activity due to insufficiencies in terms of the responsibilities of the towns, state and federal authorities. The better strategy would be to encourage enhancement of the enforcement capacity to complete their responsibilities as we move forward with practices that will benefit both the economic and the environmental well-being of Massachusetts’ waters.

Allowable Shellfish Planting Practices:

Item 2. Shellfish planting is not allowed in areas classified as Prohibited or Restricted except as follows:

- c. Municipalities may utilize contaminated waters as nursery areas to raise seed shellfish for eventual transplant to Approved or Conditionally Approved waters under a management plan approved by the director of Marine Fisheries. Nursery products would then be transplanted or relayed under provisions of the management plan and an NSSP required Marine Fisheries Contaminated Transplant Permit.*

Based on NSSP Standards (NSSP 2009, Section II. Model Ordinance, Chapter VI. Shellfish Aquaculture, under Requirements for the Harvester/Dealer, .01 Exceptions) Shellfish Products are exempt from water quality restrictions if they are derived from the following activities:

- A. Hatcheries,
- B. Nursery products which do not exceed 10 percent of the market weight; and
- C. Nursery products which are 6 months or more growing time from market size.

Therefore, I find this statement (as suggested in the Planting Guide) too restrictive to aquaculturists or groups rearing shellfish seed in nurseries and I recommend that current Massachusetts regulations and

policies adopt the NSSP Standard as stated in the Model Ordinance. Namely that any permitted shellfish grower can culture their seed in prohibited waters provided they do not exceed 10% of their market weight and are 6 months or more growing time from market size. This standard has been adopted in Rhode Island and other states and has proven to be a great boon to shellfish nurseries throughout the state. Furthermore, there have been no reported negative consequences from this allowance to shellfish nurseries.

Footnotes located on Page 6:

*“^d Marine Fisheries does not support (underline provided by the author) *planting activities that create new, self-sustaining populations in Prohibited or Restricted waters due to the risk of attractive nuisance and other enforcement and public health concerns. Without a municipal contaminated area management plan in place, these activities are not allowed.*”*

My concern with this statement (i.e. lack of support by *Marine Fisheries*) is that the Prohibited and Restricted waters are frequently the waters where you want to provide the ecological services that shellfish restoration projects have been documented to produce. Those services include removal of excess nutrient effects through assimilation of phytoplankton and other particles and transition of nutrient derived particulates into the benthic zone thereby enhancing denitrification processes. I believe that this statement and the wording in footnote 2 should be struck from the Planting Guide and that *Marine Fisheries* should emphasize that they will work closely with municipalities to develop contaminated area management plans that encourage the installation of shellfish enhancement/restoration sites to assist in the remediation of impacted water quality.

Footnote 3 located on Page 7:

*“Typically, shellfish gardens are proposed by individuals interested in growing shellfish attached to a dock, float, mooring or on tidal lands they own. (underline provided by the author) *However, in Massachusetts, the licensing mechanism for aquaculture is for commercial purposes and there is no riparian ownership of shellfish. Therefore, all gardening activities can only produce a publicly available resource. Further, a permit is required to possess seed shellfish and culture sites need to be licensed. Because enforcement to prevent illegal use is exacerbated by multiple scattered sites, there are significant water quality and shellfish safety concerns related to growing shellfish from docks and in marinas, and other areas classified as other than Approved, and the persons involved are often unfamiliar with shellfish sanitation, these activities must be coordinated by the municipality.*”*

To clarify this statement, shellfish gardens come in all shapes and sizes and many do not fit the example/model cited in the planting guide. For example, I am currently managing an oyster gardening program in Rhode Island consisting of almost 100 sites and a million seed. None of our gardeners operate as individuals but rather all fall under the auspices of our oyster gardening permit and we manage them very closely in terms of their handling of the shellfish and the fate of the seed once it achieves a plantable size in the fall. To date we have demonstrated the reliability of our oyster gardening management strategy by securing permission for holding oysters in Approved and Conditionally/Seasonally Approved Waters and we are currently running a trial deployment in Prohibited Waters. We are hoping to be able to expand our oyster gardening program into Prohibited Waters during the next growing season (2012), as is allowed by the NSSP Model Ordinance. In our

case, by statute, we have to remove the oysters from the Prohibited Waters when they achieve a size of 32 mm, a size that is amenable to our planting them into our restoration areas in the fall.

I recommend that this section either be stricken (or dramatically modified) from the planting guide or expanded to describe the variety of shellfish gardening strategies that are currently in use in the region.

General Permit Requirements:

9. *“If the culture technique used as part of the planting project involves rafts, racks, floats, bags, moorings, placement of cultch or protective netting, then additional permits may be required by U.S. ACE, MA DEP and the local conservation commission and harbormaster.”*

Be aware that under some strategies of shellfish planting, the seed are nursery cultured in floating cages (i.e. Taylor Floats) that are individually placed at docks and moorings of private homeowners. It is unlikely that individual floats installed at a dock or mooring warrants Federal oversight.

10. *“Shell used as cultch shall be aged on land for a minimum of one year and have no attached meats. Shell cultch must be approved by Marine Fisheries prior to placement into coastal waters.”*

Cultch comes in a variety of conditions and I think that there needs to be some distinction of shell type and source before instituting a blanket condition on the use of cultch. For example, we routinely utilize shell material originating from a steam shucking facility in Warren, RI and consisting of surf clam (*Spisula solidissima*) and ocean quahog (*Arctica islandica*) shells. We have used these materials directly from the shucking house discard pile with no aging both for setting up base cultch areas for future planting and as a resource for setting oyster spat. We have not had any negative results. Although we usually allow for the shell to age 2-6 months before use, as it makes it a little more amenable to remote setting for oysters, the technology we use for producing spat-on-shell for our restoration program. However, by limiting the use of cultch to source material that has aged for one year, it is putting excess constraints on the use of most cultch material and requires restoration programs to secure a large space suitable for aging shell, often a difficult undertaking. I would recommend that the one-year/no meats limitation be specifically applied to fresh oyster shell used for cultch and that the limitation for other source species and processing be relaxed or deleted altogether.

Waters under Municipal Control:

The paragraphs in this section that describe the contaminant management plan development and implementation are presented in a very negative light. It is clear that the position of *Marine Fisheries* is that it does not want municipalities to undertake this process. Some examples of the negativity include: *“Municipalities may extend their authority under section 52 to contaminated areas in accordance with a management plan developed with assistance and approval of the director of Marine Fisheries. Traditionally, municipalities and towns have not opted to use this provision of the statute.”* and *“Under any contaminated area management plan, the municipality is responsible for resource management and enforcement including patrol to prevent illegal harvesting and diversion of shellfish into commerce. Most municipalities do not assume the added responsibility in areas that cannot be harvested for direct shellfish consumption.”* As I stated above, it is frequently the contaminated areas that would benefit the most from shellfish planting activities. Therefore, I believe that the concept of a contaminated management plan needs to be presented in a more constructive and collaborative light and that *Marine Fisheries* should indicate that it will work with any municipality to develop such a plan.

Private Shellfish Aquaculture Site License (Shellfish Grants):

“the local city council or selectmen may specify a reasonable yearly market value to be produced by each shellfish project licensed.”

Production standards are a tough criteria to set! Due to unanticipated problems, including predation and/or disease, it may be difficult for a producer to meet standards, even if they are working the lease as hard as the next person. Therefore, I recommend that specific production standards, such as an annual market value, not be specified in this document but make the municipality aware that some type of production standard may be implemented. But the local managers need to carefully think about this detail and, hopefully, incorporate the thoughts and concerns of the private aquaculture producer in the setting of these standards.

In closing, I again want to emphasize that I endorse these Guidelines and believe that they will provide important information to municipalities, NGOs and individuals who may be moving towards a shellfish planting activity. With just a little tweaking, I believe the Guidelines will be a valuable resource for the Commonwealth of Massachusetts.

Sincerely,



Dale F. Leavitt, Ph.D.
Associate Professor &
Aquaculture Extension Specialist



Massachusetts Oyster Project for Clean Water

67 Old Rutherford Avenue
Charlestown, MA 02129
massoyster.org
617-794-2763

September 19, 2011

Mr. Michael Hickey
Division of Marine Fisheries

Comments on Draft Shellfish Policies

Dear Mr. Hickey,

The purpose of this email is to comment on the Draft Shellfish Planting Guidelines as presented at UMass Boston and distributed via email.

While we think setting guidelines to be set down on paper, we worry about challenges they raise if implemented as stated and if read rigidly, they could be problematic for a number of programs. As such please find below our comments and suggestions.

1. From a philosophy perspective, the guidelines do not recognize the value of shellfish for other valuable features other than the market value of catch. It is well-known that shellfish perform two important functions; water filtration and serving as habitat. The degree of water filtration varies by species and the exact amount of benefit may be debated, however it is real and recognized. The second is that shellfish add to the rugosity of the ocean floor creating habitat for over 100 other species including lobsters, shrimp, eels and fingerling fish. Many of these have commercial value, or serve as a feed source for those species. Thus the value of endemic shellfish population is of significant overall value to the greater fishery. Given these significant ancillary benefits shellfish planting should be actively encouraged as a DMF priority, not just allowed under certain circumstances.
2. Self-sustaining populations in restricted or prohibited waters should be allowed subject to consideration of the availability for policing, the ease of access to the location, the distance to other harvestable shellfish as greater distances help prevent accidental harvest due to errors in location. This would allow for the ancillary benefits mentioned above. For example, there are areas of Boston Harbor that are very well policed due to the concerns of terrorists and the LNG tankers. There also are many places where public access is restricted. Keeping the relevant shellfish discreetly may mitigate the concern of pilferage.

These populations in restricted waters may also serve as a sanctuary population should an environmental disaster occur in a harvest zone. Massachusetts has had oil spills in the past.

The specific mentioning of their removal should only be considered if they are a proven hazard. Specifically, the Agency may want to consider establishing a threshold criteria for their removal that is specific and high.

3. Research permits should be allowed for more than three years as many shellfish are exposed to diseases which can begin impacting the mollusks after 3 years or more. (This is a challenge in NH's Great Bay.) What may appear to be a successful result in year two may not be in year four if disease wipes out the adults.
4. It is our understanding from the meeting at UMass that plated areas in approved waters must be opened for harvest after three years. This seems counterproductive to certain efforts to create new oyster reef, such as the work of the Audubon Society in Wellfleet. Since it is the role of DMF to manage the shellfish populations, perhaps the following language could be inserted "Subject to a suitability and sustainability survey." Prior to the language requiring that they be opened.

Sincerely,

Andrew Jay

Massachusetts Oyster Project



September 28, 2011

Paul J. Diodati, Director
Department of Fish and Game
Division of Marine Fisheries
251 Causeway Street, Suite 400
Boston, MA, 02114-2138

Via Email: marine.fish@state.ma.us and MAshellfishguidelines@gmail.com

Re: Comments Draft Shellfish Planting Guidelines

Dear Mr. Diodati:

The Massachusetts Association of Conservation Commissions (MACC) appreciates the opportunity to submit the following comments on the draft Shellfish Planting Guidelines proposed by the Massachusetts Division of Marine Fisheries (DMF).

MACC is a nonprofit organization representing the municipal environmental agencies in all 351 cities and towns of the Commonwealth. For 50 years, MACC has supported the work of coastal communities and their Conservation Commissions to protect natural resources. MACC supports the coastal provisions of the Wetlands Protection Act, local wetlands bylaws, and other federal, state and local regulations and policies in this regard.

MACC applauds DMF for proposing new Shellfish Planting Guidelines. Appropriate management of shellfisheries is critical to the ecological well being of Massachusetts' coasts. To optimize this opportunity, MACC requests that DMF balance ecological considerations with economic ones by promulgating new regulations that establish a permitting path shellfish restoration projects (similar to MassDEP's efforts to revise regulations to streamline permitting for aquatic habitat restoration projects). Through new regulations, we request that DMF define the importance of shellfish restoration, set aside shellfish reefs for the sole purpose of ecological restoration, and permanently protect those closed areas from harvest for an indefinite period of time. Balancing ecological and economic needs puts Massachusetts on par with other coastal states. It also puts our communities in a win-win situation because shellfish reefs set aside for the purpose of restoration balance the following economic and ecosystem services:

- Shellfish reefs set aside for restoration provide food and habitat for fish, crabs and coastal birds, which help maintain other commercial and recreational fisheries;
- Shellfish reefs set aside for restoration boost historic populations and stimulate growth in other reefs grown for economic purposes;

- Shellfish reefs set aside for restoration provide a permanent coastline buffer to absorb water from storm surges and to prevent erosion reducing the billions of dollars federal, state and local governments spend on restoring damaged coastal property;
- Shellfish reefs set aside for restoration filter and purify water in estuaries, bays and adjacent freshwater systems helping juvenile species to spawn, eat and grow; and
- Shellfish reefs set aside for restoration provide spawning habitat thereby stimulating new growth of other, commercial and recreational shellfish reefs harvested for economic and social purposes.

Additionally, MACC encourages DMF to consider whether the municipal management plan contains adequate enforcement of closed areas to allow the opportunity for a new shellfish bed to be established for ecological processes and not force them to transplant to a public fishery. Under the proposed Guidelines, it remains unclear whether a community interested in ecological restoration with a research component would need to utilize the municipal propagation permit or the scientific permit. More clarity is needed.

Please let me know if MACC can otherwise assist DMF in the rulemaking process.

Thank you for considering these comments.

Sincerely,

A handwritten signature in cursive script, appearing to read "Linda Orel".

Linda Orel
Executive Director



Advocacy Department

Six Beacon Street, Suite 1025 • Boston, Massachusetts 02108
tel 617.962.5187 • fax 617.523.4183 • email

September 29, 2011

Paul J. Diodati, Director
Division of Marine Fisheries
251 Causeway Street, Suite 400
Boston, MA 02114

Via Email: marine.fish@state.ma.us and MAshellfishguidelines@gmail.com

Re: **Draft Shellfish Planting Guidelines**

Dear Director Diodati:

On behalf of Mass Audubon, I submit the following comments on the Draft *Shellfish Planting Guidelines*. As you know, Mass Audubon is engaged in an oyster reef restoration project in Wellfleet. We are also following with interest efforts by other organizations and numerous states to restore shellfish beds and oyster reefs for the full range of ecological benefits, including but not limited to habitat for fish, other marine life, and birds; water filtration; and substrate stability/storm damage prevention, as well as the production of food for human consumption and associated economic benefits.

We appreciate the Division of Marine Fisheries' efforts to clarify existing policies, definitions and guidelines for shellfish planting in Massachusetts. We also appreciate and support a strong program to protect public health and the integrity of the shellfish industry in Massachusetts. At the same time, we urge the Division to address the topic more broadly, and to provide clear and streamlined permitting tracks for shellfish restoration projects including spawning sanctuaries and restoration of shellfish resources in areas closed to harvesting due to contamination. We also recommend that the Division add a definition of ecosystem services to describe the full range of such services. The potential benefits of restoration projects are tremendous. Any concerns regarding impacts to the shellfish industry are entirely manageable – in fact, the benefits to the industry through overall expansion of the resource base far outweigh any concerns.

The Massachusetts Department of Environmental Protection is presently reviewing several regulatory programs and will be proposing revisions designed to streamline permitting of aquatic restoration projects. Given the efforts underway in other states to restore shellfish, we respectfully recommend that the Division of Marine Fisheries also undertake a review and revision of its permitting system in order to more explicitly and clearly support and streamline shellfish restoration projects.

Permitting for Restoration

We recommend that the Division specifically include a Restoration Permit under the Special Project Permit section. The draft guidelines provide for three categories of projects: propagation by municipalities or the state to increase the supply to fisheries; aquaculture; and research. A definition is also provided for restoration, and this includes re-creating historic shellfish beds that no longer exist as well as propagation for ecosystem service benefits. However, **there is no clear permitting track for restoration projects to be conducted**. Only

municipalities or the state are allowed to do propagation, and then only for supply to the industry, not for ecosystem service benefits. The benefit of spawning sanctuaries to the supply of shellfish for harvest is also not recognized in the guidelines.

Research projects are limited in duration to three years, after which harvest must be allowed. Oyster reefs take much longer than three years to fully mature. There should be no requirement for harvesting. The regulatory program for restoration projects should be structured in such a way as to allow both for projects where no harvesting will take place and those that will include harvesting, and should encourage comparative research. Investments in restoration should be supported, and the municipality should be encouraged to work with the party making such investments to optimize management of the new resource for broad and long term benefit to the full range of ecosystem services. DMF should develop guidelines for restoration permits ensuring that any harvesting of restored areas is done in a manner that does not impair the long term sustainability of the reef or other restored resource. The ecological services provided by oyster reefs, including water filtration, denitrification, fish habitat, erosion control, and spat production, are all negatively impacted by harvest. As more and more oyster aquaculture growers use non-reproducing oysters (triploids), there will a greater need for native oyster spawning sanctuaries. This will support restoration over broader areas that then may be available for harvest.

All permits required for restoration projects should be clear and specific. The draft guidelines (p.2) mentions “and possibly other permitting.” The Division should clearly identify which permits must be obtained.

Anchoring systems: The guidelines are not clear as to use of anchoring systems for restoration projects. The guidelines mention anchoring systems of the types used in aquaculture, but do not address other types such as substrates for formation of oyster reefs. Such systems should be included as an accepted practice (on p. 8, #9, anchoring).

Criteria for locating restoration projects could also be clarified as part of a restoration permitting framework. Primary areas of focus in the near term would logically be in places known to historically have oyster reefs or shellfish beds but where those resources are no longer present. Once successful techniques are developed in a variety of locations, additional sites might be considered where historical evidence is unclear or where changing coastal configurations and conditions indicate that establishment of a shellfish resource may be appropriate and would not interfere with other important existing resources or uses.

Thank you for considering these comments.

Sincerely,



John J. Clarke
Director of Public Policy and Government Relations

cc: Mike Hickey, DMF
Alicia McDevitt, DEP
Casey Shetterly, TNC

Protecting the Nature of Massachusetts



Martha's Vineyard Shellfish Group, Inc.

Box 1552
Oak Bluffs, Massachusetts 02557
508 693-0391

September 29, 2011

To: Whom This May Concern

Re: Comments to Massachusetts Division of Marine Fisheries
DRAFT Shellfish Planting Guidelines

I was unfortunately unable to attend any of the Listening Sessions held to solicit public input on the DRAFT Shellfish Planting Guidelines, so please accept this written response to be included in the record of public comments.

First let me thank you for compiling and making public this written document of the DMF Shellfish Planting Guidelines. From my 35 years of experience planting shellfish in the Commonwealth, I was aware of most of this policy, but it is very helpful to have this all compiled in a convenient written document. I also appreciate the opportunity to provide input into this policy.

As I have stated, I personally have a long history of planting shellfish in Massachusetts. I have served in the position of Shellfish Biologist with the Martha's Vineyard Shellfish Group, Inc., a non-profit consortium of the Town Shellfish Departments on Martha's Vineyard, since 1976. In this capacity, in addition to running a shellfish hatchery on the Island, I have worked closely with the town Shellfish Constables over the years in a cooperative effort to preserve and enhance the shellfish resources on Martha's Vineyard. In 1995, the Shellfish Group under a NMFS grant launched "the Martha's Vineyard Private Shellfish Aquaculture Initiative" to provide comprehensive training and assistance to Island fishers wanting to set up private shellfish farms. In addition, for many years I have served on the West Tisbury Shellfish Committee, been a member of the Massachusetts Shellfish Officers' Association and serve(d) on the governing/advisory boards of the National Shellfisheries Association, East Coast, and Massachusetts Shellfish Growers' Associations, the Southeast Massachusetts Aquaculture Center and the Northeast Regional Aquaculture Center.

When I first began working in Massachusetts, the shellfish resources were almost solely seen as a public resource for harvest exploitation by commercial and recreational fishers. Over the years, while the importance of the traditional commercial and recreational shellfish harvest aspects of the resource remain strong, increasingly the Commonwealth's shellfish resources have taken on increasing importance in additional areas, including

private aquaculture; ecological services, especially nitrogen mitigation; and as critical habitat for other marine species. While I both understand and respect the need to protect the public fishery rights to the public resource, I feel a better effort needs to be made to accommodate the new found uses of the resource. The economic benefits of private aquaculture and the environmental benefits of undisturbed refuges, require that we take a good, close look at existing shellfish management guidelines and regulations to see how they might be amended/adjusted to allow greater flexibility in the application of practices that promise increased economic benefits and an improved marine environment for the citizens of Massachusetts. With this goal in mind, I offer the following comments to the DRAFT:

1) Principles, third bullet. Consider changing to “*Marine Fisheries supports and participates in these activities when they do not unduly disrupt traditional fishing practices, ...*” This would permit greater flexibility in permitting. There should be some consideration of weighted economic and/or social benefits when considering a new use over a traditional one. Say for example in a situation where the placement of an aquaculture operation would negatively impact one wild fisher but provide jobs for 10 others. As the regulations now exist, the traditional use of a site unreasonably penalizes the newer use, even when the new use would provide greater benefits to the community. The regulations need to be amended to allow for some comparison of the benefits of change with that of the status quo, rather than to just forbid it because it is new.

2) Allowable Shellfish Planting Practices, 1 -“ Planted areas cannot be closed in excess of three years.” I am unclear what the basis (scientific or social) is for this regulation. Why the arbitrary period of 3 years? In another section of the DRAFT reference is made to a requirement to protect public access to shellfish. I believe that requirement should be able to be met under a more flexible policy that permits other public uses. I would argue that the creation of brood stock refuges and/or oysters reefs that improve the public resource and improve water quality due in fact improve the public shellfish resource and increase available shellfish in adjoining areas thereby ultimately protecting the right of public access to shellfish. This regulation essentially prohibits any attempt to incorporate any long term brood stock refuge for shellfish management and in the case of oysters prohibits taking advantage of any of the known habitat benefits associated with established oyster “reefs”. Protected brood stock refuges are known to increase the potential for egg and sperm release and increase chances for wild recruitment to public beds. In the case of oysters, protection of older stocks that have survived disease events may foster the development of disease resistance in a population. Oysters are considered a keystone species in the marine environment primarily due to the habitat/nursery opportunities they provide for a host of juvenile fish and invertebrates in the nooks and crannies of their undisturbed beds. Surely, this important function should be weighed to allow for the careful placement of refuge areas closed in excess of 3 years. It is highly likely that the wild fishers will reap far greater rewards from keeping some areas closed compared to any benefits they may gain from guaranteed fishing access to all shellfish areas at least every 3 years.

3) Allowable Shellfish Planting Practices, 5 – “Shellfish planting by private citizens or private property owners (i.e. shellfish or oyster gardening) may be conducted under the

auspices of the local shellfish department in common areas of Approved waters set aside by the municipality under their shellfish management authority³. Typically, shellfish gardens are proposed by individuals interested in growing shellfish attached to a dock, float, mooring or on tidal lands they own. However, in Massachusetts, the licensing mechanism for aquaculture is for commercial purposes and there is no riparian ownership of shellfish.” Considering the overwhelming success of shellfish gardening programs in the many East Coast states that allow them, every effort should be made to encourage recruitment of the willing and able volunteer riparian owner workforce who want to assist in public shellfish propagation. Through their participation in such programs, shellfish gardeners are provided with a unique hands-on education in shellfish culture and biology. Being a part of a shellfish propagation effort provides them with a sense of ownership in the public shellfish resource that makes them more likely to support public funding for shellfish management programs and to be more careful with activities on their waterfront that might harm the shellfish. Beyond the immediate benefits of volunteer labor, the importance of public support for shellfish resources that results from this personal involvement should not be underestimated. Considering the importance of shellfish gardening to public shellfish propagation programs and the fact that gardening programs in other states appear to have experienced no substantial problems allowing riparian owners to culture seed shellfish off their docks, Massachusetts should consider modifying regulations to allow shellfish gardening by riparian owners at more convenient private dock sites rather than only at distant common sites where volunteers are less likely to participate. As in other states that allow dock side shellfish gardening programs, gardener education programs can alleviate any health and enforcement concerns.

4) General Permit Requirements, 10 - Shell used as cultch shall be aged on land for a minimum of one year and have no attached meats. Shell cultch must be approved by *Marine Fisheries* prior to placement into coastal waters. The harvest of shellfish results in the habitat-damaging removal of shell from the ponds. Shell provides a source of buffering in increasingly acidified marine waters and is crucial for the maintenance of sustainable oyster populations. Consequently, the return of shell to shellfish beds is a necessary shellfish management practice. Considering the importance of this management activity, efforts should be made to encourage it and regulations should be only so restrictive as necessary. The requirement to age shell cultch for a minimum of one year before placement discourages necessary management efforts by requiring sites for long term storage. Except for oyster shell, that may harbor potential oyster disease parasites, the existing one year storage requirement is overly restrictive. Much of the cultch available for management comes from shucking plants for sea clams and ocean quahogs. It is highly unlikely that these species harbor oyster diseases. Modifying this regulation to 3-6 months storage for shell cultch other than from oysters, would lessen the obstacles to the application of the fundamental management practice of shell replenishment through cultch placement.

5) Waters Under Municipal Control - If a municipality wants to grow shellfish to improve water quality and eventually transplant or relay shellfish to remove the nitrogen from contaminated waters, the municipality may assume control of a specific contaminated water body or portion of the contaminated waters within its municipal boundaries under a management plan (Section 52). I am happy to read that there is some

flexibility in establishing a bed in contaminated waters. In many cases these contaminated waters are just the places that would benefit and be improved from the natural filtering services of shellfish. In many of these areas, there is restricted public access so the chances for poaching and public health concerns are negligible.

Thank you again for the opportunity to comment on this DRAFT.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard C. Karney". The signature is written in a cursive style with a large initial "R" and "K".

Richard C. Karney
Shellfish Biologist & Director



Comments

Dave Grunden

Fri, Sep 23, 2011 at 10:12 AM

To: MAshellfishguidelines@gmail.com

Comments on draft Shellfish Planting Guidelines

The work of the Division of Marine Fisheries and The Nature Conservancy on these guidelines should be commended. Obviously a lot of time, work and discussion was put into the document. There are a couple of issues that I would like to comment on.

Of particulate to note is the eventual permitting to conduct "shellfish gardening" programs.. Our ponds are all above their healthy nitrogen threshold and action to bring down the nitrogen levels is required. As we all know there is no easy method or decision to address this issue. There is no silver bullet and a multifaceted approach is likely to be part of the solution. One of these is the benefits provided by shellfish through their filtering. Here in Oak Bluffs there has been interest in establishing a shellfish gardening program. The Lagoon Pond Association has expressed keen interest. Additionally the idea has been discussed at meetings of the Tisbury Waterways Inc. and Friends of Sengekontacket. These local associations are keen to take advantage of these ecological benefits.

Shellfish gardening programs have met with success in several other states. On Long Island you can qualify as a "Master Gardener" through the offices of the Cooperative Extension Services.

The second issue goes toward the requirement that areas put into a restoration plan may only be closed for a maximum of three years. This time frame is fine for steamers and quahogs as long as there is strong enforcement to ensure under sized animals are not taken. The method of harvest of oysters can be destructive and seed set on adults would likely be taken or killed during culling the catch. The short three year closure is not sufficient for oyster reef construction or restoration. There is a vertical component for the reef. To be a successful project oyster spat must settle onto the reef structure. Releasing seed on micro clutch would not do, they would be at risk of being moved during storms and wind events. In our area it takes two to three years for an oyster to become sexually mature and have a relatively long life span. By limiting a maximum of a three year closure limits the spawning each year to only one or two year classes. By allowing a longer number of years to be closed there would be more year classes available to spawn in an immediate area. This will give a reef construction or restoration project a much greater chance of success.

The Town has been working closely with MA Department of Ecological Restoration toward restoration of Farm Pond. In the early 1950's oysters were introduced to the pond and it became known for the oysters that it produced. Due to restricted tidal exchange the bottom has become silt. We can find abundant dead oysters (not just cultch) a few inches below the surface of the silt surface. One goal is to re-introduce oysters to the pond once the tidal restriction is corrected.

Thank you for this opportunity to comment on the draft guidelines

David W. Grunden

Oak Bluffs Shellfish Constable

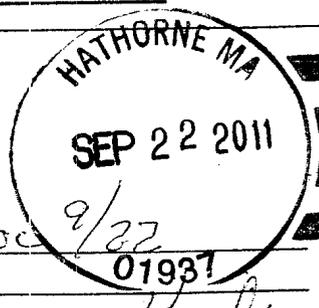
Draft Shellfish Planting Guidelines – Suggestion & Comment Card

PRIVATE
VARIANCE

Please indicate whether this is a suggestion or a comment.

Suggestion

Comment



Details

SEE: Response Counterparts of Doc #1 thru #4 Private methods to purify and at other state loci also SEE #4 of 9/21 1+the 4 doc submission

Optional
Name Rick P. Phelan Director 313
City Cent. for Marine Resources of Ma

Name Rick P. Phelan email or street address Box 702 N. Apt. Ma 01950-0902

Thank you from Marine Fisheries and The Nature Conservancy

TO: DMF - The Nat. Conserv.
30 Emersion Ave Gloucester Ma
204 Long Pond Rd Plymouth Ma



FROM: Ctr. for Marine Res. of Ma.
Rick P. Phelan Director
BX 702
Nbpt, Ma 01950-0902

RE: Draft Shellfish Planting Guide/Regs
Suggestion & Comment

Private alternate methods for
variance(s) (some already used) purifi-
cation:

- ① Wet storage in ocean or alt waters
- ② Private purification std methods
tanks with UV source
- ③ Private irradiation methods (Flu)
- ④ And/or to transport to other
states open & amenable to #s
1 thru # 3.

{ Also SEE # 4 suggestion comment 1-4 }
9/21/11 (1 of 2)

Dear Sirs/Madames

The above for consideration and
a re-visit of the 1990 Ad-Hoc Meeting
chaired by Sen Fred Berry, Tom Palumbo, Sen Tejuga
DMF James Fair & M. Hickey, Ipswich Maritime
Products, Mr. Pete Mastalis & Rick P. Phelan, Northern Maine Aquaculture

Draft Shellfish Planting Guidelines – Suggestion & Comment Card

Please indicate whether this is a suggestion or a comment.

PUBLIC
LANDS
FARM

Suggestion

Comment

SEP 21 2011

01937

Details

SEE: Response/Counter Points of Voc

#'s ① thru ④ Shellfish Planting Guide

-lines AND REGS: For Public/Municipal

Tide lands (And some over reach into private

ownership/operations via footnotes? #3 Typical Opinions from
pg 7 #5 f #3 the agency

Optional

Ctr for Marine Resources of Ma

Name

Richard R. Porto

email or street address

Box 702 N. Apt. Ma 01950-0702

1 of 2

Thank you from Marine Fisheries and The Nature Conservancy

TO: DMF & The Nature Conservancy
30 Emerson Ave. Gloucester MA
204 Long Pond Rd.
Plymouth, Ma 02360



FROM: Ctr for Marine Resources of MA (-0-profit)
Richard P. Phelan - Director
BX 702
NBPT, MA 01950-0902

RE: Draft Shellfish Planting Guidelines/Reg(s)
Suggestion & Comment - Public Flats

① Have to, and did take umbridge with
pg 7 # 5 footnote # 3 "Typical" Opinions? Regs
failing to acknowledge Riparian Ownership
again, apparently dropped @ presentation
(Having been a victim of regs, based on opinion
or omissions (not legislated) 1971 OCO 1641 → 23
spent in land court or US vs Canada 1994 Mobility Act)

For
Safety
&
Enforcement
see # 4

② Also, take umbridge with the Regs to
handle clam seed/spat. As if a controller
substance [in the name of safety &
enforcement (which is already stretched)]
Must now also be licensed?

see
4

Bull Flat
06/07
08/08
clean
out
BOS
D

③ Munciple self rule would be a win
but take umbridge with what appears
to be another layer of bureaucracy of
regs for safety & enforcement.

SEE
4

④ And forth and foremost. If safety &

④ Enforcement truly are the goals while And beyond that the greater need to boost the industry of Steamer Clams/Shellfish....

To Free up enforcement resources, already stretched, w/o more police regs. ... A simple study to ~~to~~ specifically apply Dr. Lopic Pastores work [40 years in waiting (and grants shot down)] For the impiracle data with regard to Steamers via Study: Super, Med, + Mild, Bac-T levels with a target pathogen? virus or other. Clams with drilled holes in shell + micro temp sensors to observe temps internally (like a can ^{canning}) cook then test!! ^{DMF to fund University to conduct.}

Due to Opinion

The above impirical data, 40yrs over due, maybe the White Paper Draft, to truly free up enforcement resources prior to greater duplicitous municipal regs adding hurdles opposed, to supporting Steamer industry

hcc:

Sew
[Signature]

Draft Shellfish Planting Guidelines – Suggestion & Comment Card

PRIVATE
LANDS
FARM

Please indicate whether this is a suggestion or a comment.

Suggestion

Comment



Details

SEE enclosed doc 9/20 special request(s)

variances omitted from Shellfish Planting Guide

-lines AND REGS: #1 thru #3 to Dept Head

Mr. Mike Hickey post 9/8 @ 9/8 listening session

As this pertains to private & unique circumstances
Aqua Culture farm, Northern Maine Aqua Culture

1511 Flat Napt, Ma

Optional Ctr of Marine Resources, Ma

Name: R.P. Phelan email or street address: Bx 702 Napt, Ma 01950-0902

Thank you from Marine Fisheries and The Nature Conservancy

TO: DMF
Mike Hickey
1213 Purchase St.
New Bedford Ma 02740

Sept. 19, 2011



FROM: Northern Maine Aqua Culture
Rich P. Phelan
BX 702
NBPT, MA 01950-0902

RE: Follow-up meeting @ Draft Shellfish Planting Guidelines (Regs Public/Municipal Flats) 9/8/11 Invite to Public Listening Session/Suggest for "Objections/Questions" Variance allowance(s) by DMF/Mr. Mike Hickey for Private Aqua Culture Ball Flat (Given unique setting, loci, Hardship(s) ~~40~~ ³⁰ yrs) circa 1971*

- ① Wet Storage to enhance yield/production on rain days prior to "open" to dehydrate
- ② Transporting to plant via plastic bed liner given loci/prox to plant (50yds ~~Best~~) 2 Miles approx by vehicle [45Kretling truck] A savings lot!
- ③ Master license up grade given above unique circumstances



Mr Mike Hickey

The above, positive response as available, per conversation. And also your request, to go direct to you, not to be sent/added to suggestion guidelines of planting regs/draft. And written follow-up to your re-direct. And Directors office, to re-direct, back to your office, for green lite #1, 2, 3 enumerated above.

Thank you in advance for your support and anticipated cooperation expediting.

M. Hickey



Follow up to Dale Leavitt Comment

3 messages

Wed, Sep 21, 2011 at 7:59 AM

To: MAshellfishguidelines@gmail.com

Comment: Follow up to Professor Leavitt.

After reading the comments from an Educator and advocate towards the future direction of the Aquaculture environment. This is how we should be looking to use Massachusetts waters to keep a sustainable industry using todays technology to improve the grow out of the filter feeders to improve the water quality within the commonwealth waters.

Also it is good to know that this forward thinking advocate and educator to the future of Aquaculture as made suggestions to the Department of Marine Fisheries before making any new regulation to the aquaculture methods of growing of shellfish is implemented.

Submitted

Bill Van Norman

September 21, 2011

Division of Marine Fisheries
251 Causeway Street, Suite 400
Boston, MA 02114

To whom it may concern:

Thank you for the opportunity to comment on the draft Shellfish Planting Guidelines (SPG). Compiling these regulations in a single, short document for comment and subsequent use is most welcome and an excellent guidance tool.

I have questions concerning (1) the linkage between the Shellfish Growing Area Classification (SGAC) under Shellfish Planting Definitions (SPD) sections; (2) another concerning the required depuration times listed in the SPD section in reference to respective specifications under the National Shellfish Sanitation Program (NSSP).

Transplants. Under the SGAC, it is stated that, for Prohibited areas as specified by the NSSP, the “Area [is] closed to the harvest of shellfish under all conditions.” However, under the SPD section on Long Term Transplants, it states that municipalities can transfer shellfish from Prohibited to Approved or Conditionally Approved areas for depuration. Therefore, under this scenario, shellfish can be harvested from Prohibited areas for transplanting the types of areas as specified. Would it be possible to add a footnote to the definition for Prohibited in the SPD section to clarify this inconsistency?

Depuration Periods. There are inconsistencies between the prescribed minimum depuration periods in the SPG and the NSSP. For shellfish relating the NSSP has a minimum requirement of 14 days for microbial contaminants whereas the SPG has a minimum period of 90 days plus one spawning season for short term relays from Restricted areas to Approved or Conditionally Approved waters and one year plus one or more spawning seasons between Prohibited areas to Approved or Conditionally approved waters, provided the environmental condition are suitable for depuration in all scenarios. The NSSP also states that for metal depuration, a period of 84 days is considered adequate which is shorter than either of the SPG requirements. There is clearly a huge discrepancy between the two guidelines with no apparent information/data available to justify any of the scenarios. Also, concerning the use of treatment systems (such as the Newburyport Shellfish Purification Plant), the SPG indicates a minimum time for depuration of three days whereas the NSSP guidelines suggest 44 hours, though there is a relatively small difference between these two guidelines compared to the others above noted. It seems reasonable to conduct research on the rate of depuration from contaminated waters in Massachusetts to develop a data base that would show the actual time required. Can the DMF conduct and/or coordinate and support the research to do this?

Thanks again for the opportunity to comment.

Yours respectfully,

A handwritten signature in black ink that reads "Ronald D. Zweig". The signature is written in a cursive, flowing style with a large, prominent initial 'R'.

Ronald Zweig
President
Coonamesett Farm Foundation
277 Hatchville Road
East Falmouth, MA 02536

cc: Ronald J. Smolowitz, Treasurer, Coonamesett Farm Foundation

APPENDIX D

Summary Chart of Comments.....Page D-1

	Written Comments Compiled in Appendix C†																Listening Sessions Comments & Issues Compiled in Appendix B*					
	Anonymous	P Bagall	B. Brennessel	CC Coop Ext./WH Sea Grant	Cape Cod Oyster Company	A. Cummings	Dept. of Agri. Resources	Gloucester Constable Sargent	D. Leavitt	MA Audubon	MA Oyster Proj for Clean Water	MACC	MV Shellfish Group	Oak Bluffs Constable Grunden	R. Phelan	B. Van Norman	R. Zweig	Boston	Bourne	Gloucester	Hyannis	Wellfleet
Ecological services	C-1							C-14	C-21	C-19/20	C-17	C-24	C-27		C-36		B-3/4	B-5 B-6				B-9
Habitat									C-22	C-19	C-17	C-24							1			1
Filtration	C-1							C-14	C-23	C-20	C-17	C-24 C-26	C-27		C-36		B-3/4	B-5 B-6				B-9
Closure 3+ to est. restoration site (oyster)/resource protection			C-3	C-4 C-5							C-18	C-24	C-27				B-2/3					1
Sellfish/oyster gardening	C-1			C-5	C-7			C-14				C-24 C-24/25	C-27				B-3	B-5				
Definition clarification/additions				C-5		C-8	C-9	C-12/13	C-21/22	C-19	C-18							B-4 B-6	B-2	B-7/8		
Research permits 3+ years				C-5					C-22		C-18						B-3	B-5 B-6				B-9
Cultch aging				C-5				C-15				C-25					B-3 B-4	B-5				B-9
Enforcement	C-1							C-11	C-13	C-21	C-20			C-33				B-5				
Massachusetts standards/NSSP standards																C-37		B-5 B-6		B-8		
Oyster sanctuaries/shellfish refuges			C-3							C-21		C-18	C-24				B-4		B-2			
Permit requirements - other agencies/DMF revisions						C-9		C-15	C-22	C-19/20	C-18						B-3		B-2			B-8/9
Municipal management plan for prohibited/restricted				C-5				C-15				C-25/26					B-3	B-5				
Transport tagging, storage																						B-9 B-10
Anchoring systems, nets, docks, etc.								C-15	C-22									B-5	B-2			B-10
Municipal license - setting yearly market value						C-9		C-15										B-5				B-10
Populations in restricted/prohibited waters								C-13 C-14 C-15		C-20	C-20											
Conflicts with other traditional fishing practices								C-13				C-24										
Depuration														C-29 C-30		C-37						
License process for in-state (non-municipal waters)				C-5														B-7				
Principles								C-13				C-24						B-5				
Research general	C-1																			B-1		
Best Management Practices																						B-8
Other		C-2					C-9							C-30 C-32/33								
Riparian ownership														C-31								
Seed/spat handling														C-32								
†Substantive comments, others relating to information requests omitted																						
* Some attendees attended more than one session and/or submitted written comments. Not all comments are reflected. Those which were general or practical issues not related the guidelines are generally omitted.																						
Edit suggestions:																						
Acronyms/consistent usage	C-1																			B-2		
Classification area descriptions				C-5		C-9/10									C-37							
Closure status				C-5																		
Footnotes				C-5/6				C-14														
Formatting																				B-2		
Identify authors	C-1																					
Other permits																						
Process suggestions:																						
Notice to stakeholders			C-3																			B-10