

**Aquaculture Advisory Council**  
**September 22, 2017**  
**Jacques Cousteau National Estuarine Research Reserve**  
**Tuckerton, Ocean County**  
**Meeting Minutes**

**Members Present:** Mr. Frank Minch (Sec. Douglas Fisher), Mr. Russ Babb (Commissioner Bob Martin), Ms. Virginia Wheatley (Comm. Cathleen D. Bennett), Dr. Dave Bushek, Mr. Mike De Luca (Dr. Robert Goodman), Mr. Bill Avery (Mr. George Saridakis), Mr. Ned Gaine, Mr. John Maxwell, Mr. Barney Hollinger (Mr. Richard Herb), Ms. Amanda Wenzel

**Members Absent:** Mr. Jeff Flatley (Lt. Gov. Kim Guadagno), Dr. Larry Katz, Mr. Paul Waterman, Mr. Dave Burke

**Public in Attendance:** Daphne Munroe, Scott Chernoff (NJDEP), Bill Riggin, Jenny Tomko (NJDEP), Betsy Haskin, Tony Ni, Matt Gregg, Doug Zemeckis, Gretchen Maxwell, Pete Rowe, Tommy Burke, Craig Tomlin (NJDEP), Rick Brown (NJDEP), Gef Flimlin, Lisa Calvo, Peter Moore (Guest Speaker)

Mr. Minch called the meeting to order. A quorum was present.

Motion to approve previous meeting minutes was made; one abstention, remainder in favor, motion passed.

Meeting commenced with guest speaker- **Mr. Peter Moore, Mid-Atlantic Regional Association Coastal Ocean Observing System (MARACOOS)**- speaking on ocean acidification monitoring. Websites for more information: [MARACOOS.org](http://MARACOOS.org). The organization is funded by the NOAA integrated ocean observing system- national network of regional observing systems- which historically had an offshore focus. Moving focus more inshore with fisheries and stock assessment assistance (e.g., reducing uncertainty in assessments), as well as into estuaries. Began Vibrio modeling in Connecticut to determine the appropriate timing of closures, with potential to replicate or modify for Delaware Bay- finer scale that is better suited to grow out locations.

Latest item in development is the Coastal Ocean Acidification Network. Developing forward looking modeling to determine when events may or are likely to occur to allow growers to act before water changes. Website for more information [MIDACAN.org](http://MIDACAN.org). Webinar series on the website provides more information on the organization and data available. The premise is to develop the network so that information gets to growers when they need it. Mr. Moore provided basic overview of information on network and ocean acidification- greatest known threat right now for shellfish aquaculture is the larval stage. Network measures CO<sub>2</sub> and pH. To get onto listserve: [info@midacan.org](mailto:info@midacan.org).

*[Mr. Avery arrived at 10:15 am.]*

Mr. De Luca asked what connection the Mid-Atlantic network has with other regional networks. Secondly, he noted that other research entities such as the Research Reserve System may have data

that could benefit the network. Mr. Moore: The Pacific Northwest and New England networks are very integrated with their industries- that is the goal of the Mid-Atlantic network. It is not intended to be academic in function but user-driven.

Mr. Avery asked if satellites could be used for measuring/monitoring the acidity of the ocean. Mr. Moore: Not right now, this is a water sampling and depth-base issue that cannot be measured with satellites. In the Pacific Northwest much of this is old water being upwelled from deep offshore. Mr. Rowe: Some work is going on at the Howard Lab in Sandy Hook and at the Aquaculture Innovation Center (AIC) in Cape May where they can detect signals of acidification. For a satellite, you could see a change in sea surface temperature that would correspond with an upwelling event. Mr. Moore: Yes, but the actual measure is fairly sophisticated chemistry of the water. The temperature is the potential of the occurrence but may not be an event. So, the end game is predictive models of when the potential becomes an event. Right now, we are not close to that.

Dr. Daphne Munroe added that at the AIC pH is being measured, however to make a measure of pH biologically-relevant to shellfish, it entails complicated and expensive chemistry. For the past three years, Dr. Munroe's Lab has been conducting this sampling and chemistry, in conjunction with experts at the Howard Lab [Sandy Hook] and have found some correlations with the simple pH measures to ocean chemistry. We don't have real-time data yet, but are working towards this.

Mr. Gaine questioned the critical level of pH; if the information collected is to be used at the farm level, at what point should farmers be concerned. This resulted in discussion on size-dependent effects of pH/acidification with larval mortality and sub-lethal impacts to juveniles and adults (e.g., slow growth but not mortality). Dr. Munroe noted that this is also site-specific and related to alkalinity and carbonate saturation states, which is thought to be connected to salinity (think because this is not certain- more research still underway on this topic). For instance, in a lower salinity area, the thresholds you are requesting may shift. It could also shift with the seed selected or diploid vs triploid. There is still a great deal of uncertainty but the tool presented by Mr. Moore is something that you can use in addition to your on-farm observations. It increases the amount of data available.

Mr. Gaine questioned the threat of ocean acidification in the Mid-Atlantic relative to New England & Pacific Northwest. Mr. Moore stated that he has heard the Mid-Atlantic is showing signs of being in less danger, but much of the work that Dr. Munroe is doing will certainly inform that comparison.

Closed presentation with notation of need for industry inclusion in this process- data, science, economics, help with grad student fellowships (Peter Rowe will provide more on the fellowship assistance need at a later date). See MIDACAN website for more information on current data.

**Mr. De Luca updated the Council on the Red Knot-Aquaculture Adaptive Management Stakeholder Committee.** Refresher on Stakeholder Committee (SC) and Members- see previous meeting minutes. Last meeting of SC was July 20, 2017. Discussions on governance and operating procedures- almost established. The Science Advisory Group is forming as a broader pool of experts that can assist within the primary topic areas of interest as opposed to a stagnant committee.

A Science Symposium is upcoming in September, which will bring together experts to present latest findings on red knots, aquaculture, horseshoe crabs, and allow for discussion amongst participants. The SC will then use the symposium information to discuss changes to Conservation Measures, followed by a meeting of the SC and Agency Workgroup. The Agency Workgroup then has the final review and approval of the proposed changes.

**CZM/Land Use Rule Comments- Amanda Wenczel:** CZM/Land Use rule proposal in the NJ Register that included proposed changes to shellfish aquaculture permits. Based on the timing of the proposal and the AAC meetings, the Council did not convene prior to the close of the public comment period. Comments that were drafted via email were not submitted.

The NJ Department of Agriculture did supply comments on the rule proposal, signed by Secretary Fisher. A meeting between Land Use and NJDA staff is slated for later in the month to discuss the rule proposal.

Based on the wealth of feedback, Assistant Commissioner Kopkash has expressed that although the public comment period has closed, she and her staff want any additional comments from interested parties such as the AAC. She stressed [not present at AAC, but via prior conversation] that this item being discussed is a rule proposal not adoption and so the more feedback they receive the better off they are in determining their next steps in the rule-making process.

Mr. Minch explained the rule proposal and adoption timeframe, with up to 1 year from the end of the public comment period to adopt the rules. He also stressed that DEP are willing to take comments outside the public comment window, which is a positive for the AAC. The rule can be effective upon adoption or after a certain timeframe, all dependent upon the Department and the rule. The AAC could request a six month delay, for instance. Mr. Gaine made a motion for AAC to request a six month delay of adoption after the final rule is published.

*[No further action occurred with the motion.]*

Mr. Rick Brown (NJDEP) added that other options for the rule proposal are for it to “die-out” and not have any further action over the next year, so it never becomes formal as was proposed. He also stressed that any substantive changes to the rule require that the rule be re-proposed- substantive changes cannot be made upon adoption. That is why it is important for your comments to be submitted and stay involved. Mr. Minch added that each new proposal (e.g., if substantive changes are made) starts the “one year to adopt” clock again.

Mr. De Luca requested clarification on ability of AAC to provide feedback as a Council. Mr. Babb conveyed comments from Commissioner Kopkash that the feedback on the rule proposal are showing that it was not properly vetted. She intends to hold a meeting of anyone interested in furthering this discussion, with Mr. Babb providing a telephone number for interested individuals to call for meeting information. Mr. Minch stated that it behooves the Council to take advantage of the offering from DEP.

Discussion on rules followed, specific items noted here.

Mr. Gaine- if the rule is adopted, the grower/applicant should have ability to complete the assessment and application; there should not be the need for hiring outside expertise to complete the application.

Dr. Bushek clarified that if the AAC requested one item removed, would the entire rule be pulled back or just that section. Mr. Minch and Mr. Brown clarified that it is up to the Department [DEP], but they can remove sections of the rule proposal and allow other sections to be adopted. If something is outright removed, the rule proposal can be adopted with being considered substantively changed; however, adding or changing is a substantive change requiring re-proposal.

Mr. Avery addressed current and historically occurring activity relative to these proposed changes, specifically regarding how these may change the Permits-By-Rule. Ms. Wenczel noted that the Permits-by-Rule are still in question and need further legal review as to how the proposed changes would apply/impact the industry. Mr. Gaine stressed that this question points directly to the lack of industry involvement in rule development and had the industry been involved this would have already been addressed. Mr. Babb added that PBR is intended for activities that the Department has deemed not needing an application or Department review. The Department will need a legal review of applying the proposed changes to PBRs.

Mr. Hollinger asked if US Army Corps permit could stand as proof for these permits. Mr. Babb noted that the application for US Army Corps could be used for this application. Mr. Craig Tomlin (NJDEP) noted that State listed species may not be addressed on federal permits, so Army Corps application may not have everything you need for the state application. Ms. Lisa Calvo stressed the state rule proposal goes well beyond that of federal permitting in that the State rule proposal includes listed species as well as habitat. By including habitat, it means the industry must provide assessment for areas where species may not be currently located but have the right characteristics for future use. Without research to provide knowledge to what those impacts may or may not be, this will definitely shut down aquaculture in the State of New Jersey. This is serious and the Council must act on this matter.

Mr. Minch requested comments for additions to the letter based on discussion. Mr. Gaine stated that anything from the AAC must include the Aquaculture Development Plan. The letter as written should retain the first comment (lack of stakeholder involvement), but then immediately have a comment on the Aquaculture Development Plan. Mr. Babb added that the Landscape Mapping and limitations of the mapping, especially the marine layer, should be in the letter.

Mr. Avery noted that the State should vet leases as a “landlord”. Mr. Babb noted that newer leases are vetted for certain consideration but there are some leases in areas of Delaware Bay that are 150 years old. Additionally, some of the species listed on the Landscape Maps are not considered in the new lease review.

Discussion on extent of content of letter ensued...resulted in motion from Mr. De Luca to 1) add cover letter stressing lack of stakeholder and industry engagement; 2) add inadequacy of Landscape Mapping in comments; and 3) stress the need to use the Aquaculture Development Plan as a guidance tool for aquaculture actions at the State level. Both the cover letter and comments to be sent to DEP/Commissioner Kopkash. Amended by Mr. Gaine to strengthen closing statement

to stress AAC involvement and use of Aquaculture Development Plan. Mr. De Luca seconded amendment, Mr. Maxwell seconded motion. All in favor; one abstention. The motion allows for email correspondence and submittal of letter by Ms. Wenczel.

Mr. Gaine commented on actionability of Council and having a plan in place to act on items in a timely manner. He pointed to the Rules Subcommittee as a possible group. He also noted lack of routine meeting even though it is set for quarterly but that does not always occur. Dr. Bushek asked if Rules Subcommittee could include non-Councilmembers. Mr. Minch noted that non-Councilmembers could serve on the Subcommittee but they cannot vote or have a say in Council proceedings, they would only be advisory. Mr. Maxwell suggested kicking the discussion to Rules Subcommittee. Mr. Gaine's concern is that quarterly meeting limits ability of Council. Mr. Hollinger stated it is not the meeting timing, but rather knowledge of actions that impact the industry.

Dr. Bushek suggested that a letter from the AAC be sent to each Commissioner on the AAC that their representative provide an update at each meeting. Mr. Gaine seconded that as a motion. All in favor.

Mr. Brown noted that there are items being prepared for the new administration, so the AAC/industry should add items to those reports. Mr. Gaine noted that a new Aquaculture Development Plan is important to show the new administration where the industry stands and the items, such as rule changes, that have been occurring recently. Mr. Gaine also suggested emergency meetings for items requiring immediate attention- such as rule comments.

**Tidelands Resource Council Revised Aquaculture Policy- Approved September 6, 2017:** Mr. Gef Flimlin commented on the new policy that aquaculture is not taking up large areas of that State.

Mr. Gaine stressed that this is another policy that did not include input from the industry/AAC, nor was there notification to the industry/AAC. There is no representation of the industry on the Tidelands Council.

Mr. Tony Ni questioned gear/structure that is not noted within the new Tidelands Policy. He specifically noted floating cages at or under a dock. Typically, a dock already has a Tidelands License but if this is a unique situation, that would require individual discussions and likely a Tidelands License, similar to grow-out/lease areas.

Mr. Gaine noted overlapping layers of permitting and confusion. Is that not over taxation or double fee, being charged more than once to do the same activity? Discussion then ensued on permitting aquaculture versus other activities/boats/etc.

Mr. Babb recommended that a group (industry/AAC) attend a Tidelands Resource Council meeting to have this discussion with them, not us because this discussion is not reaching the right people.

Mr. Gaine stressed that the Aquaculture Development Plan would apply in this situation as well with the Tidelands situation noted in the last plan written eight years ago.

**Reminder the USDA, NASS survey will be sent to growers December of this year or early in 2018.**

### **New Business**

Mr. Hollinger- the Commissioner (NJDEP) signed the new shellfish lease policy which raises the lease fees for new applications (\$250 app fee) and renewals (\$100 per entity plus per acre lease fee).

Mr. Avery- proxy on email list for AAC? Clarification required to provide Mr. Avery with answer. Mr. Gaine- stressed lack of appointments to the Council, especially industry. Mr. Hollinger noted that this is every Council waiting for appointments.

### **Public Comment**

Mr. Matt Gregg- requesting a stakeholder meeting on the Vibrio Plan. NJDEP and NJDOH at the meeting and getting stakeholder involvement in plan development. Meeting before end of year. Ms. Wenczel clarified that the Vibrio Plan for NJDEP is now included within the BMWM rules, so changes may not occur without rule-making. Given the change of administration, it is highly unlikely that changes will occur for 2018. Mr. Gregg explained that his concern is harvesting later in the day so as to limit number of times going from lease to onshore (e.g., currently harvesting then going back out to lease to do husbandry). Mr. Hollinger noted that his company is also working on a similar strategy and is coordinating a meeting of interested parties. The only issue right now is that it is within rule, not the concern that we can do this and maintain a safe product- we have already shown that with NJDEP and NJDOH on the boat.

Meeting Adjourned.