

DRAFT Meeting Summary
Oyster Advisory Commission (OAC) Meeting
 Chesapeake Bay Foundation
 Annapolis, Maryland
 (4:00 PM – 7:00 PM)
 July 16, 2008

LIST OF ATTENDEES

Commissioners Present:

William Eichbaum (Chair)	Vice President, World Wildlife Fund
Sherman Baynard	Coastal Conservation Association
Mark Bryer	The Nature Conservancy
Don Boesch, Ph.D.	President, University of Maryland Center for Environmental Science (UMCES)
Torrey Brown, M.D.	President, Intralytix; Board of Trustees, Chesapeake Bay Trust; Chairman, Oyster Recovery Partnership (ORP)
Kim Coble	Chesapeake Bay Foundation (CBF)
Delegate Stephen Lafferty	Maryland Delegate, Environmental Matters Committee 2007
Douglas Legum	General Partner, Real Estate Development
Mark Luckenbach, Ph.D.	Virginia Institute of Marine Science (VIMS), Wachepreague Laboratory
Pat Montanio	Director, Office of Habitat Conservation – National Oceanic and Atmospheric Administration (NOAA)
Delegate Tony O'Donnell	Maryland Delegate, Environmental Matters Committee; Legislative Sportsmen's Caucus 2001
Ben Parks	Maryland Watermen's Association, Dorchester County
Bill Richkus, Ph.D.	Operations Manager and Division Director, Versar, Inc.
Jason Ruth	Harris Seafood Co. LLC
Eric Schott, Ph.D.	University of Maryland Biotechnology Institute (UMBI) - Center for Marine Biotechnology
Don Webster	University of Maryland Cooperative Extension

Commissioners Unable to Attend:

Senator Richard Colburn	Maryland Senator, Dorchester County
Doug Lipton, Ph.D.	University of Maryland (UMD), Sea Grant Coordinator
Brian Rothschild, Ph.D.	Montgomery Charter Professor of Marine Science and Technology, School for Marine Science and Technology, University of Massachusetts Dartmouth
Bill Windley	Maryland Saltwater Sportfishermen's Association

Other Meeting Attendees Present:

Chesapeake Bay Foundation (CBF): Mr. Bill Goldsborough, Ms. Stephanie Reynolds
Chesapeake Bay Seafood Industry Association (CBSIA): Mr. Bill Sieling
Coastal Conservation Association (CCA): Mr. Ken Hastings
Maryland Department of Natural Resources (MD DNR): Mr. Thomas O'Connell
Maryland Geological Survey (MGS): Mr. Jeff Halka, Mr. Bob Conkwright, Ms. Katie Offerman
Maryland Environmental Service (MES): Ms. Marisa Olszewski, Mr. Joshua Chapman
Oyster Recovery Partnership (ORP): Mr. Stephan Abel
National Oceanic and Atmospheric Administration (NOAA): Mr. Payton Robertson, Mr. Rich Takacs, Mr. Steve Giordano, Mr. Jay Lazar
Natural Resources Police (NRP): Capt. Lloyd Ingerson

ACTION ITEMS

1. MES will send an email regarding the August meeting dates of the OAC. (*Update: Completed.*)
2. MES will have the presentations from this meeting posted to the website for the Oyster Advisory Commission. (*Update: Completed.*)
3. The Commissioners will contact Mr. Eichbaum with ideas about funding sources for the implementation of OAC recommendations.
4. At the August OAC meeting, Del. O'Donnell and Chairman Eichbaum will lead a discussion to develop guidance for DNR on applying for a fossil shell dredging permit.
5. The Commission will also discuss public outreach strategies concerning the release of the 2008 OAC report at the August meeting.

MEETING SUMMARY

Opening Remarks and Meeting Objectives (Bill Eichbaum, OAC Chairman)

Mr. Eichbaum welcomed the meeting attendees. He asked the Commissioners to give some thought as to how their recommendations could be funded. Though this is not the OAC's charge per se, it would no doubt increase the effectiveness of the recommendations if the OAC can demonstrate that the funding can be secured. Mr. Eichbaum asked that any Commissioner who has ideas about funding OAC recommendations contact him.

Approve June 18, 2008 Meeting Summary (Bill Eichbaum, Chair)

Mr. Parks had comments on the previous month's meeting summary. He asked that the Commission note that the MOA's proposals have been discussed in the past. Historically, Dorchester Co. has been reluctant to support power dredging, and that watermen in the upper Bay, as well as charter boat captains, are in general opposed to removing oystering registration surcharges. The meeting summary was approved noting that these comments.

Approve Agenda

Mr. Eichbaum proposed that the law enforcement discussion be moved to come before the presentation on bottom-mapping. The OAC members approved the meeting agenda with this change.

Public Comment

There were no comments from the public at this time.

Law Enforcement Discussion (Capt. Lloyd Ingerson, Natural Resources Police)

Capt. Ingerson began by discussing some of the challenges Natural Resources Police (NRP) faces. The most serious challenge currently is personnel. Out of the 280 positions, 55 are currently vacant. Though the NRP is in the process of hiring 30 more people, new officers take from 12-15 months to train. In that time, it is likely that a substantial number of current officers will retire. These numbers are a sharp decline from the 490 officers the NRP has employed historically; matters are made worse by expanded responsibilities of parks and forestry management that has since been placed on the NRP. Currently there are only five patrolling officers per county on the Eastern Shore.

The next major challenge facing NRP, according to Capt. Ingerson, is the aging fleet of vessels they currently have. Some boats purchased in 1972 are still being used, though they often need servicing. In addition, NRP needs to expand their on-the-job training, but lacks the funding to do this. The training would update officers on the newest regulations, and also acclimate newer officers to the job, since many possess less fisheries and wildlife management experience than new hires have historically possessed. Capt. Ingerson noted that improving technology has also made the NRP's job more difficult. Improvements in radar technology and the proliferation of cell phones in society have made it easy for poachers to warn one another of NRP activities.

In the case of oysters, the NRP has a few specific recommendations to improve enforcement:

- 1) Prohibit the possession of more than one type of oyster harvesting equipment on fishing boats
- 2) Prohibit the possession of hand scrapers (unless oystering on a leased bottom)
- 3) Creating consistent regulations on bushel limits
- 4) Prohibiting power dredge oystermen from harvesting oysters by other methods

Mr. Parks noted that he supported recommendation #3, and said that allowing only one type of gear for oystering would take care of enforcement. Mr. Webster asked if the NRP still used aircraft. Capt. Ingerson confirmed that they did; the NRP has two helicopters and one airplane, though the latter has been out of service for the past three years due to maintenance issues. The helicopters have a combined age of 70 years; currently, one mechanic is assigned to perform daily maintenance on the helicopters. The age of the airships makes finding replacement parts challenging.

Dr. Luchenbach asked if the courts sufficiently discipline natural resource offenders. Capt. Ingerson said convictions are difficult to obtain, and the usual consequence of a conviction is the minimum fine; though he noted that the laws are becoming stricter. Mr. Webster asked if NRP had the authority to confiscate boats. Capt. Ingerson responded that this authority has been challenged, because the law reads that NRP can confiscate a boat “upon arrest”. It is much more common for the NRP to issue a citation rather than make an arrest; the NRP would like the law to be changed to read “upon arrest or citation”.

Del. O’Donnell asked if there were any issues prosecuting natural resource offenders in different jurisdictions. Capt. Ingerson replied that it has been easier to prosecute in some jurisdictions than in others. The NRP would like to see natural resource offenders prosecuted all on the same day, once a month. In addition, the NRP would like a few selected State’s Attorneys trained to deal with natural resources cases. Del. O’Donnell asked if NRP had coordinated with the State’s Attorneys yet. Capt. Ingerson responded that they had not. Mr. Eichbaum asked if the courts understand the gravity of natural resource violations. Capt. Ingerson responded that the courts appear apathetic, but the issue is one of perception. The NRP would like the courts to view fisheries violations as a theft of watermen’s income.

Mr. Legum asked why the NRP was not confiscating more boats. Capt. Ingerson responded that the costs of storing many confiscated boats were too high. Mr. Legum asked why offenders were not required to pay these costs. Capt. Ingerson said that the maximum charges for confiscation do not cover all the costs. Mr. Legum added that the NRP could hire watermen looking for work as officers. Capt. Ingerson responded that they have done this in the past, but in general, former watermen’s terms of employment are relatively short.

Dr. Boesch asked about the magnitude of the poaching problem. Capt. Ingerson responded that this varies by location. Mr. Parks said that from his experience, poachers comprise a relatively small portion of watermen, but the effects they have on fisheries is disproportionate to their numbers. Mr. Baynard added that the Fisheries Task Force’s Enforcement Work Group is working to promote the improvements to law enforcement discussed tonight, and suggested that the OAC and FTF release a joint statement on the issue.

Ms. Coble asked how high fines would need to go to serve as an effective deterrent. Capt. Ingerson said that this requires changing the laws, but an effective deterrent would vary depending on the size (and therefore profitability) of the poacher’s catch. Del. O’Donnell asked why boats cannot be confiscated, since boat confiscation is so common in drug cases. Capt. Ingerson responded that the law does not give the same authority in situations involving natural resource violations, though the drug laws could provide a useful template for creating a natural resources law mirroring the authority granted in drug laws. Mr. Eichbaum asked what incentives exist to begin poaching in the first place. Capt. Ingerson said that the reasons for poaching are varied, but in general, poaching begets more poaching; when a waterman feels the stress from poachers, he is often tempted to begin poaching himself. “Crossing over” from legitimate fishing to poaching is not uncommon.

Mr. Bryer commented that improving NRP’s access to technology would have substantial benefits, specifically mentioning increased effectiveness of oyster tracking systems and the

benefits of boat traffic visualization. Capt. Ingerson added that the NRP could also work together with National Security while policing the waters as well, given the technology. Mr. Parks commented that at one time, it was illegal to have bushel baskets on oystering vessels. Since it is allowed now, it is easier for oysters caught to go unreported. Capt. Ingerson agreed.

Capt. Ingerson then gave a short presentation on MLEIN technology. MLEIN is an information-sharing network that can be transmitted to bay or ocean vessels. For example, a NRP enforcement vessel could receive images from fixed cameras and radars, and access criminal and mapping databases. Each vessel would have a “virtual command center”, a computer terminal that allows access to MLEIN information via username and password access. Cameras will be put into the field to support MLEIN as early as this spring. Mr. Webster added that this technology would be especially useful in aquaculture reserve zones. Capt. Ingerson agreed.

Bottom-mapping systems (Jay Lazar, NOAA/MGS)

Mr. Lazar gave a presentation regarding bottom-mapping in the Chesapeake Bay and its connection to native oyster restoration programs. Mr. Lazar explained that bottom-mapping has historically been conducted on an “as needed” basis with the most recent complete survey of the bay bottom being taken 25 years prior. Since 1997, Maryland Geological Survey (MGS) has been conducting side scan sonar surveys of parts of the bay bottom and has been doing some surveys to show oyster reefs. Mr. Lazar also explained how the surveys’ accuracy have significantly increased, especially since the Yates Bar Survey (1906 – 1912), which many use as the historical compass of the bay bottom. To illustrate this point, Mr. Lazar presented a slide with images from the same section of the Magothy River from the two completed surveys (the Yates survey, and a survey completed by MD DNR in 1983) as well as the ongoing MGS survey. These images highlighted the change in hard-bottom, including oyster reefs, that is due in part to the increased accuracy of survey technology.

Mr. Eichbaum asked if the change in the bottom could be explained entirely by the advances in survey technology, or if geological changes over the time period had also influenced the bottom mapping results. Mr. Bryer added that accepted historic figures of declining oyster bars predict that between 1975 and 1983 the number of oyster bars fell from 200 thousand to 35 thousand. He questioned if part of this decline could be explained by better technology in surveying, or if it was still believed that this figure shows decline in oyster habitat during that time due to over-harvesting and sedimentation. Mr. Lazar responded that part of this 70% reduction was likely due in part from an over-exaggeration of interpolated data from the earliest bottom survey. Mr. Webster did point out that an additional cause of the sharp decline demonstrated by the MD DNR survey ending 25 years prior could also be attributed to the introduction of epizootics (commonly *Dermo* and *MSX*) around the same time.

Mr. O’Connell mentioned that using the Magothy River as the main example in Mr. Lazar’s presentation may not have been the best representative study because of a large clam population that, providing hard-bottom, was interpreted in the MD DNR study as oyster habitat. As for oyster reefs in the Bay, Mr. O’Connell also gave more information about the decline illustrated by the MD DNR bottom survey. He explained that the 70% decline was specific to what was designated high quality bottom, although because of this, it is assumed that low quality bars

declined at least 70% and may have disappeared. Mr. Lazar added to this by explaining that the Yates survey boundaries were likely exaggerated because the survey was being taken to support conservation. He explained that not only are today's surveys more accurate, but they can also detail the density of the hard-bottom habitat areas.

Dr. Schott asked if sedimentation in the Bay is assumed to have been constant over the last four years. Mr. Jeff Halka, Acting Director of MGS, responded that sediment has always been washing into the Chesapeake Bay. He stated that the current situation with the Bay's oyster population likely has been caused in part to the loss of oysters and in part to sedimentation from development and shoreline erosion. Mr. Eichbaum stated that his understanding is that sedimentation in the Bay was more severe at the turn of the century than today. Mr. Halka responded that due to the current state of the oyster population in the Bay, sedimentation continues to be a contributing factor in restricting oyster growth.

Returning to the presentation, Mr. Lazar stated that current mapping strategies can be used to aid in better site selection for oyster restoration projects and is also a valuable tool for monitoring restored reefs. Mr. Lazar introduced the concept of a Chesapeake Bay Mapping Consortium, in which groups that will benefit from the new mapping share resources to re-survey the Bay bottom. Mr. Lazar explained that the estimated time to survey the bottom of the entire Chesapeake Bay is 1,000 days operating one full-time vessel.

Dr. Boesch stated that he would prefer for there to be more of a strategy to the areas being surveyed rather than simply having a systematic survey of the Bay bottom. Mr. Bryer asked if there is currently enough information from the past surveys to make large-scale comparisons between rivers regarding oyster restoration planning and site selection, or if it would first be necessary to take new surveys to do so. A representative from NOAA stated that the current data available from past surveys would not be of sufficient quality to make such comparisons. He also responded to Dr. Boesch's concern stating that the mapping would be prioritized within a plan to survey the entire system.

Del. Lafferty questioned the logic of using inaccurate surveys from the past to prioritize current mapping. Mr. Peyton Robertson, Director of the NOAA Chesapeake Bay Office, responded that narrowing the focus of the bottom-map surveys to oyster restoration would allow NOAA to make strategic decisions based on what is known about current oyster habitat. New surveys would then provide current, more accurate and thorough information that could then be coupled with hydrodynamic or other Bay models to give information for oyster restoration decisions. He added that the comprehensive mapping would be achieved by using the priority areas as starting points; by connecting one priority area to another until the entire Bay had been re-surveyed. Mr. Halka added that it has become clear that oysters have preferential depths and shapes on bars for better growth and survival. The bottom mapping would provide information about more than just where to restore, but also how.

Industry Re-emergence Workgroup Update (Don Webster)

Mr. Webster explained that the workgroup had been drafting a report containing concepts for Industry Management Areas (IMAs) and obtaining feedback on these concepts through industry

advisors' review. The group has been coordinating another meeting with industry advisors to discuss recommendations to direct funding towards the IMAs. The group also plans to discuss issues of protection and enforcement regarding the IMAs. Related to this, in a meeting with MD DNR Secretary Griffin originally called to address crabbing issues, parts of the conversation addressed oyster restoration and aquaculture; this could provide new funding sources for the recommendations of the workgroup.

Mr. Webster also informed the group that the Maryland Aquaculture Coordinating Council (MACC) would be meeting on August 14, 2008 to develop a statement of principles for the future of a shellfish leasing program. Mr. Webster would share the statement resulting from this meeting with the OAC at the September meeting.

Mr. Webster stated that the workgroup hopes to make recommendations for ways to attract private capital for aquaculture development while minimizing the need for public funding. Additionally, the workgroup sees the need to have active oversight of leases, to ensure their constant use.

Mr. Eichbaum stated that he is pushing for a new, simple statute on bottom-leasing.

Ecological Restoration Workgroup

Mr. Bryer stated that his workgroup expects to make specific draft recommendations to the OAC at the next meeting, and have a final report to the Commission in September. He stated that the workgroup had a productive meeting with Dr. Elizabeth North, the lead researcher on the Oyster Larval Transport Model used in the Oyster EIS. They found that Dr. North's work could provide helpful tools on a macro scale for planning oyster restoration in the Bay. Mr. Bryer added that while Dr. North's model would not work to specifically identify bars best located for restoration activities, it would be helpful in informing larger recommendations.

Mr. Legum asked if Mr. Bryer's workgroup had considered purchasing shell as part of their recommendations. Mr. Bryer confirmed that they were, but he was not sure which oyster restoration goals purchased shell would be put toward. Mr. Eichbaum added that the MD OAC Checklist, a meeting hand-out for Commissioners, more completely answers Mr. Legum's question, and reminded the Commission that seed and disease are also important limiting factors.

Del. O'Donnell stated that September seemed late to be releasing the final report, and asked if it could be moved up to August. Mr. O'Connell said that the benefits of shell dredging had not fully been examined. Del. O'Donnell responded that the report should be ready to go despite this. Dr. Luckenbach added that there was no need to rush, since it would take some time to figure out what the OAC is required to produce. Mr. Eichbaum recognized Dr. Luckenbach's point, but said that it was a separate issue from producing the final report.

Mr. O'Connell stated that the scientific assessments in the Oyster EIS are complete enough, each having undergone successful peer review, to be used for the OAC to make a recommendation on the DNR's historic shell dredging program. Mr. Parks stated that the program has been very important to watermen; considering the time it would take for full implementation after a

decision is made, he urged the Commission not to delay in making a recommendation to MD DNR. The OAC agreed to finalize recommendations at the next meeting. Del. O'Donnell and Chairman Eichbaum agreed to lead a discussion to this end.

Mr. Legum asked how MD DNR would act to implement the recommendations of the Commission. He also stated that buying shell from out of state was another opportunity that the Commission should act upon quickly while it was still available. Mr. Eichbaum responded that he did not believe that the Commission was prepared to secure what limited funds are available for oyster restoration and use them for purchasing shell at this time. Mr. Eichbaum wants to put an entire restoration plan together, rather than work on restoration in a piecemeal fashion. Mr. Parks added that while shell itself is inexpensive, it is the cost of transporting it that is prohibitively expensive.

Mr. Eichbaum drew the attention of the Commission to a hand-out that had been prepared for them. The hand-out, entitled "MD OAC Checklist", contained a chart with various topics that the OAC had discussed and one or more recommended actions in response to those problems. Mr. Eichbaum asked the Commission to consider the chart and specifically asked workgroups to be sure that issues identified on the chart would be addressed in their reports.

Update on the Oyster EIS (Tom O'Connell, MD DNR and Bill Richkus, Versar, Inc.)

Mr. O'Connell explained that the Oyster EIS release date had been further delayed. He also explained that, in spite of the delay, the research has all been completed and peer reviewed, and that the three main assessments are, for the most part, final. The independent Oyster Advisory Panel (OAP) that was established in 2004 met in July and received a draft version of the EIS, which they are now in the process of reviewing. Mr. O'Connell explained that Dr. Richkus' presentation would begin presenting the scientific research completed for the EIS, which should aid the OAC in making a decision about the MD DNR shell dredging program.

Dr. Richkus gave a presentation highlighting the research done and conclusions drawn from the Ecological Risk Assessment (ERA) and the Economic Assessment for the EIS. He also provided information about the background for the EIS research including the proposed action and the eight alternative actions being considered. Dr. Richkus presented the purpose statement for the EIS, which had a target population for oyster restoration to be similar to the projected population from 1920 – 1970, about 11 billion oysters in the Bay.

Dr. Richkus stated that the ERA was based upon the Relative Risk Model and was led by Dr. Charles Menzie of Exponent. He explained that while an ERA is normally used to assess the risk of catastrophe, this ERA had the unusual task of predicting both risks and benefits. Dr. Richkus also explained that the OAP had been especially concerned with the ERA's reliance upon data from the Oyster Demographic Model, another research component of the EIS. The models also use a narrative analysis of the Asian oyster, assuming that introduction is successful for the sake of the analyses.

Additionally, there had been uncertainty in the ERA as to whether or not reefs of mixed oysters would be used as habitat for certain creatures. It was considered likely that competition would

exist between the oyster species, and while local extinctions are possible, complete extinction of the native oyster as the result of the introduction of the Asian oyster was found to be highly unlikely.

Dr. Richkus also presented information from the Economic Demand Model used in the Economic Assessment for the EIS. He explained that the purpose of this model was to determine the economic consequences of the proposed action and eight alternatives. Additionally, the lead researcher, Dr. Doug Lipton (also a member of the OAC who could not be present for the meeting), used a model to estimate the size of an economically feasible aquaculture program in the Chesapeake Bay. Dr. Richkus expected that Dr. Lipton would give a full explanation of his work at a future meeting.

Dr. Richkus concluded that among the concerns that the OAP discussed at its meeting in June, the OAP felt that the EIS had not adequately addressed a continuing loss of habitat for oysters in the Bay. The OAP also desired more information comparing three dimensional reefs with shell-to-reef restoration included in the assessment. Mr. O'Connell added that although the Draft EIS would not include a chosen preferred alternative; the Lead Agencies guiding the EIS would likely identify a narrowed list of alternatives, and a suggested combination of alternatives. The agencies will then take public comment on their narrowed list of options once the Draft EIS is released.

Mr. Legum asked for more information about the EIS target of 11 billion oysters in the Bay, feeling that this number seemed too large to be realistically attainable. Mr. O'Connell explained that in order to assess the proposed action and alternatives for the EIS, there needed to be a more quantifiable alternative than the previously outlined increased, "self-sustaining" population of oysters. As such, the number estimated to be the amount of oysters in the Bay between 1920 – 1970 was chosen as a reasonable goal. Dr. Richkus added that although the goal was a large number, especially compared to the population of oysters in the Bay currently, there was no timeframe set for when this goal would need to be reached.

Del. O'Donnell asked for clarification about which oyster was assumed to be used in the economic assessment of aquaculture options. Dr. Richkus responded that it was assumed for the economic assessment that either of the oysters could be used for the same effect in the aquaculture scenarios.

Dr. Boesch stated that, independent of the goal of 11 billion oysters overall in the Bay, useful information could be gleaned from the scientific assessments including that concentrated areas of aquaculture would have ecological benefits for the local areas in which they were placed.

Public Comments

There were no public comments made. Ms. Coble requested that the OAC discuss public outreach strategies concerning the release of the 2008 OAC report at the next meeting.

Adjourn

The meeting adjourned.