Note: See pages 5-6. Donald Merritt (UMCES HPL) was in favor of dredging Man O War Shoals, noting "the General Assembly directed DNR to apply for a permit to retrieve shells from Man O War several years ago".

Meeting Summary Oyster Advisory Commission Wye Education and Research Center Queenstown, MD 4:00 PM – 7:00 PM 13 February 2013

## LIST OF ATTENDEES

#### **Commissioners Present:**

Anthony Chatwin (Chair)	National Fish and Wildlife Foundation (NFWF)
Kelley Cox	Phillips Wharf Environmental Center
Douglas Lipton	University of Maryland
Donald Meritt	University of Maryland Center for Environmental Science, Horn Point Lab (UMCES HPL)
Anthony O'Donnell	Maryland Delegate, House Minority Leader, Environmental Matters Committee
Claire O'Neill	U.S. Army Corps of Engineers – Baltimore District
Ben Parks	Maryland Watermen's Association, Dorchester County
Peyton Robertson	NOAA Chesapeake Bay Office
Eric Schott	University of Maryland Center for Environmental Science
Evan Thalenberg (by phone)	Chesapeake Bay Savers
Donald Webster	University of Maryland Extension
Robert Witt	Commercial Waterman
Leonard Zuza	Southern Maryland Oyster Cultivation Society

# **Commissioners Unable to Attend:**

Donald Boesch	University of Maryland Center for Environmental Science
Mark Bryer	The Nature Conservancy
Kelton Clark	Morgan State University
Richard Colburn	Maryland Senator, Dorchester County
William Goldsborough	Chesapeake Bay Foundation
Douglas Legum	General Partner, Real Estate Development
Kenneth Lewis	Coastal Conservation Association
William Richkus	Versar, Inc.
Shane Robinson	Maryland Delegate, Environmental Matters Committee
William Windley	Maryland Saltwater Sportfishermen's Association

#### **Other Meeting Attendees:**

Maryland Department of Natural Resources: Lynn Fegley, Frank Marenghi, Michael Naylor, Steven Schneider, Eric Weissberger
Oyster Recovery Partnership: Stephan Abel
Mason Springs Conservancy: Ken Hastings
Philips Wharf Environmental Center: Carol McCollough
Calvert County Watermen's Association: Rachel Dean
National Oceanic and Atmospheric Administration: Peter Bergstrom, Bruce Vogt
Chesapeake Bay Commercial Fishermen's Association: Gibby Dean
Chesapeake Bay Seafood Industry Association: Bill Seiling
Public: Terry Witt

### **MEETING SUMMARY:**

### **Opening Remarks/Review Objectives/Approve October 17, 2012 Meeting Summary** (Anthony Chatwin, Oyster Advisory Committee Chairman)

Dr. Chatwin opened the meeting at 4:15. A motion was made to approve the minutes of the October 17, 2012 meeting. The minutes were approved.

#### **Public Comment**

Dr. Chatwin opened the floor for public. Ms. Rachel Dean of the Calvert County Watermen's Association read a prepared statement. Ms. Dean requested information on how the charter was developed, and would like the industry to be involved in any discussion of restructuring of the oyster fishery. Ms. Lynn Fegley of the Department of Natural Resources (DNR) replied that it is the commission's charge to review and comment on any biological reference points, and that input from the industry will be considered. Ms. Dean expressed concern that by the time any document went to public comment that it would be too late for meaningful input.

### Land Use Effects on Fisheries (Margaret McGinty, DNR)

Land use is one of the issues addressed in the new charter, and several commissioners had questions about the relationship between land use and oysters. Dr. Chatwin introduced Ms. McGinty to discuss the work she has been doing examining the relationship between land use and finfish biology. Michael Naylor of DNR commented that he has been working with Ms. McGinty for 17 years, identifying linkages between land use and water quality.

Ms. McGinty presented her research on the effects of urbanization on fish, using impervious surface as an indication of development. Although her presentation focused on tidal fish, Ms. McGinty made it clear that what happens in non-tidal areas affects the organisms and habitats downstream. Increased development was associated with decreased dissolved oxygen, increases in PCBs, decreased fish abundance, decreased fish spawning, decrease in fish egg viability, impaired fish development, and decreased fish feeding. Ms. McGinty suggested that these changes indicated an ecological regime shift in developed areas. She recommended fisheries management based on the amount of impervious surface in a watershed, with harvest restrictions,

stocking, watershed conservation and restoration in watersheds with < 5% impervious surface, conservation and watershed rehabilitation with the option to stock and decrease harvest in watersheds with 5-10% impervious surface, and conservation and re-engineering of the watershed in areas with >10% impervious surface. Ms. McGinty concluded by stating that land use planning can protect aquatic habitat by limiting impervious surfaces and conserving rural land. She also stressed the need to understand the limitations of storm water best management practices.

Dr. Eric Schott questioned the use of impervious surface as a proxy for development, suggesting that eutrophication is the real issue that needs to be addressed. He indicated that urban areas are mandated to reduce nutrient input to waterways, and wondered if this would be effective at improving water quality. Dr. Schott also inquired if flashy streams still occurred. Ms. McGinty responded that the science was still out whether the reduction of nutrient impacts had measurable effects on fish and their habitat, and that flashy streams indeed occur. It is likely that the effects of flashy streams and nutrients are cumulative, but it is difficult to separate the effects of each.

Delegate O'Donnell asked if Ms. McGinty had considered the historical and sociological aspects of her analyses. Ms. McGinty said that DNR understands the needs of counties. She said that development does not need to be stopped, but that people should be aware of the consequences of development, and that there are ways to minimize impact through ecosystem based management.

Dr. Douglas Lipton suggested that the use of impervious surface as a proxy for development was an over-simplification of development and that the real problem is much more complicated. Ms. McGinty responded that imperviousness is used because it can be measured, and that other indicators of development, such as housing density, may be used. Dr. Lipton mentioned that the way development occurs now differs from the way it occurred in the past, and that reduction of impervious surfaces doesn't ameliorate all of the effects of development on aquatic habitats.

Mr. Leonard Zuza asked if there were any specific rehabilitative steps shown to be effective. Ms. McGinty responded that the conservation of rural landscapes is the most effective approach. However, there is little monitoring to gauge the effectiveness of restoration projects. Preliminary results from a study in Montgomery County indicate that best management practices are performing well; in some cases they are performing better than expected. However, results from biological monitoring indicate varying degrees of degradation in the streams. Performance of the BMPs does not directly reflect the health of the organisms living in the receiving streams. It may not be possible to reverse the regime shift.

Mr. Peyton Robertson stated that different systems respond in different ways. Pervious surfaces may influence sediment and nutrients, but not necessarily toxic substances. Local planners must weigh the ecological and economic implications of their land use decisions, and make people aware of the trade-offs. For example, oysters filter the water, but they can also be harmed by land use decisions. We need to be smart about the placement of oyster restoration projects, and place them in areas where they won't be covered by sediment.

Dr. Schott advised that we have to manage expectations that oysters are the solution to what's happening upstream. Ms. McGinty responded that there is not much in the literature on the relationship between oysters and land use.

Dr. Chatwin said that we need to better understand the impacts of land use on oysters, and asked what opportunities DNR has to advise on land use. Ms. McGinty replied that DNR and other state departments are developing tools for land use decision making. DNR has met with county planners to demonstrate the tools. DNR is also working with the Sustainable Fisheries Goal Implementation Team to address land use issues.

Mr. Bruce Vogt commented that NOAA has not yet analyzed the ecological effects of land use decision making. He suggested putting together a STAC proposal to bring together people who have developed decision-making tools to create one resource package. Mr. Vogt also suggested engaging citizens, including representatives from the commercial and recreational fishing industry, in land use planning efforts.

Mr. Donald Webster recalled an anecdote about someone who asked what it would take to restore Chesapeake Bay to the way it was in John Smith's time. The answer was to move everyone out of the watershed and wait 100 years. Mr. Webster also said that from the data presented, it seemed not to be cost-effective to continue to place oysters in the Severn River. Ms. McGinty responded that the Severn experiences hypoxia and has high concentrations of metals and endocrine disruptors. She inquired as to the goal of putting oysters in the Severn River, such as increasing dissolved oxygen concentration. Mr. Webster inquired if hypoxic water was flowing from rivers into the bay which might affect adjacent oyster grounds. Ms. McGinty replied that the opposite was true, with normoxic water flowing from the bay into the rivers.

Delegate O'Donnell mentioned that there were two schools of thought on oyster fisheries either remove fishing pressure or work oysters to keep them healthy. He inquired if Ms. McGinty had examined the differences between oysters and finfish, as oysters are sedentary and finfish are mobile. Ms. McGinty replied that her group had not yet done any oyster work.

# Harris Creek Permit Update

Mr. Naylor updated the Commission on the status of the Army Corps-Maryland Department of the Environment permit application to restore oyster reefs in shallow water in Harris Creek. DNR applied for the permit because there was insufficient area in deep water to reach restoration goals. A public hearing was held on February 12, 2013 at Easton High School to obtain comments on the project. Crabbers are concerned that the project will negatively impact their crabbing, with trot lines getting caught in the stone planned for restoration. The crabbers are also concerned that the timing of reef construction may also negatively affect crabbing. The week before the public hearing Mr. Naylor and Ms. Fegley met with crabbers on Tilghman Island to explain the project and address their concerns. At the hearing, several watermen explained their concern to the regulators, and representatives from NOAA and the Chesapeake Bay Foundations spoke in favor of the project.

Mr. Zuza expressed his hopes for the permit's approval, and that it would set a precedent for restoration in shallower waters. He cited Dr. Denise Breitburg's findings that oxygen conditions and food supply are better in shallower water.

Mr. Parks reiterated the watermen's concern over the use of stone in the project, saying that you can't crab on stone.

Delegate O'Donnell was concerned about the use of concrete and rubble in Harris Creek. Mr. Naylor explained that even though those materials were mentioned in the permit, DNR plans to use only stone and shell in Harris Creek. The stone will be 6-7 inches in size, comparable to the size of a large oyster.

Ms. Cox informed the Commission of a talk on the Harris Creek restoration project given at the Phillips Wharf Environmental Center, where crabbers expressed concern over trot lines snagging on rocks. Ms. O'Neill said that the Army Corps was using granite 3-6 inches in size.

Dr. Meritt wondered why alternate materials were being used for reef construction when large amounts of buried shell could be used. Dr. Meritt said we need to look at different methods for recovering buried shell, and not to restrict ourselves to the use of previously-planted shell.

Mr. Webster noted that the General Assembly had directed DNR to apply for a permit to retrieve shells from Man o' War shoals several years ago, and requested the status of the permit. Mr. Naylor replied that DNR had submitted a permit application, and was in the process of responding to the Army Corps' request for additional information.

Ms. O'Neill inquired about the timeline for the Harris Creek permit. Mr. Naylor replied that there were no guidelines on the time to process the permit application.

Mr. Parks noted that Langenfelder can move more shell in one day than watermen can in one year. He state that shell does not interfere with crabbing, and that reef life develops on shell very soon after it is placed in the water.

Delegate O'Donnell said that shell availability has been a problem for years, and the issue must be resolved. The General Assembly directed DNR to apply for a permit to retrieve shell from Man o' War shoals, and partners in the conservation community are needed to get the shell.

Mr. Parks commented that nobody had shell, including the public fishery, aquaculturists, or the restoration program. All need to work together to solve the shell problem.

Mr. Zuza noted that there is no mention of shells in the new OAC charter. Dr. Chatwin replied that shells must be part of the discussion. Mr. Zuza asked about the politics of getting shell and making it available. Dr. Chatwin said that a discussion of substrate must include shell as well as alternate substrates.

Delegate O'Donnell said that alternative substrate should not distract us from getting shell.

Mr. Parks asked about the price of shell from Langenfelder. Mr. Naylor replied that it used to be less than a dollar per bushel, but gas prices have risen since that price was quoted.

Dr. Meritt replied that enough shell is available, and that we need to identify the locations of shell deposits and obtain the permits and funding necessary to retrieve these deposits. Delegate O'Donnell echoed Dr. Meritt's sentiments. Furthermore, Delegate O'Donnell insisted that DNR stop saying that there is a shortage of shell. If the State were to decide to make shell available, there would be no need to consider alternate substrate material. The use of shell substrate would reduce both program cost and public opposition to preparing bottoms for spat plantings.

Mr. Robertson noted that the ultimate goal is oyster restoration, and achieving that goal involves a discussion of cost-effectiveness. The goal must be discussed in the context of resources currently legally available. The policy preference for shell or alternative substrate must also be discussed in the context of cost-effectiveness. Mr. Zuza commented that we must examine the price of shell today vs. the cost of obtaining dredged shell. No recommendations can be made on funding until there is more definite information regarding the availability of shell. Given the price disparity between shell and other substrates, it is not possible to identify reliable costeffective restoration strategies until after the availability and cost of shell is known.

Mr. Naylor noted that contrary to the claims of Dr. Meritt and Delegate O'Donnell, there is no map showing large deposits of readily exploitable shell.

## **Discussion of OAC Plan and Subcommittees**

Dr. Chatwin noted that the OAC charter identifies specific issues and outcomes to be addressed within a 2 year time frame. Given the current OAC meeting schedule of 3 three-hour meetings per year, the commission has 18 hours to achieve the outcomes specified in the charter. The fishery management plan biological reference points are not ready for discussion; therefore Dr. Chatwin recommended postponing them until year 2, and focusing on the remaining four charges from the two other sections of the charter: cost-effective restoration and protection. Dr. Chatwin suggested that subcommittees could help achieve the goals of the charter by meeting in between OAC meetings and bringing back information to discuss with the full commission. He mentioned that there had been both interest and concern about subcommittees, and that the main goal was to be productive. Dr. Chatwin then asked the commission for their recommendations on how to approach the work they are charged with.

Dr. Lipton said he would like to hear the plan to develop biological reference points before they are developed. He also mentioned that the OAC had subcommittees to begin with, and that they were productive. The subcommittees brought work to the whole Commission and a lot of progress was made

Mr. Webster noted that it would be helpful to bring in outside members with the expertise necessary to address the charges.

Dr. Meritt mentioned that the OAC has lacked direction and focus, and that he is happy to see specific objectives and goals. He felt it was important to prioritize the goals and do what it takes to achieve them, and that presentations are not a good use of the Commission's time. Dr. Meritt

noted that the Oyster Roundtable was encouraged to think outside the box, but it seems like the charter is putting too many constraints on the OAC. He recommended letting the OAC make recommendations on issues they feel are important.

Delegate O'Donnell said that he felt the OAC is guided to where DNR would like to go, and it would be better to let the Commission make independent recommendations.

Dr. Chatwin said that the group must focus on a certain number of topics to be effective, and that these issues are identified in the charter. If the Commission feels that they need to think more broadly to achieve these goals, then that is permissible. He asked what presentations would be helpful for making recommendations to the department. Dr. Meritt replied that would be helpful to have more information in advance of discussion at the meetings, and Dr. Chatwin agreed.

Mr. Robertson asked how much time people were willing to commit to achieving the outcomes specified in the charter. He said that briefing packets and identification of alternatives would be helpful, and asked who is available to gather materials for the subcommittees.

Ms. Fegley commented that DNR has limited resources for staffing subcommittees. DNR can provide support for focused tasks, but staff is not available for open-ended use.

Mr. Zuza said that even with the varied backgrounds of the OAC members and guest experts, there is not enough time to achieve the goals of the charter without subcommittees to work on the issues between meetings. The subcommittees can then provide recommendations to the whole commission.

Ms. O'Neill felt that subcommittee comprising 4-6 people with a team leader would be effective. The team leader would reach out to the whole Commission for input.

Mr. Webster mentioned that workgroups were used in the Aquaculture Coordinating Council (ACC). Each workgroup is chaired by an ACC member, but outside expertise can be brought in. All meetings are open to the public, and all issues discussed by the workgroups are brought to the full ACC for review. The ACC chairman and the head of the DNR aquaculture program frame the questions for the workgroups.

Dr. Chatwin stressed that the work of subcommittees must be done between meetings, and recommended that one subcommittee meet between this meeting and next to see how well this will work.

Dr. Meritt said that the assumption was that it would take a lot of support staff to operate with subcommittees. He suggested that subcommittees might not require much support staff, and that subcommittees should be given a chance given how well they worked in the past.

Mr. Webster replied that the OAC's recent Economic Restoration Workgroup functioned well without any staff.

Mr. Zuza said there's no reason why all subcommittees can't start collecting information and lining up relevant speakers.

Delegate O'Donnell asked where the charges in the OAC charter came from. Dr. Chatwin replied that the charter was developed by DNR and discussed by the Commission. Delegate O'Donnell then mentioned that workgroups were used in the legislature and that they worked well.

Delegate O'Donnell commented that the Natural Resources Police patrol charge might be more appropriately addressed by the ACC, an interagency body. He noted the differences between the ACC and the OAC, with the OAC being an advisory body to DNR. Delegate O'Donnell also said that the patrol charge was leading the OAC down a path the DNR would like to go.

Mr. Robertson commented on the charge relating to the effectiveness of enforcement. He recommended collecting data on effectiveness of enforcement and evaluating those data before making recommendations on patrol frequency.

Dr. Lipton said the Commission should not feel confined by the charter, and that is starting point for discussing important issues. Dr. Lipton recommended discussing the shell issue first.

Mr. Parks commented that public oyster bar restoration should be considered under discussions of restoration

Dr. Meritt asked if the charter charges could be modified. Dr. Chatwin replied that the way the OAC interprets the charges is up to the Commission. He said that we can discuss issues different than the ones mentioned in the charter, and that if the Commission feels DNR missed the mark on some charges, then that can be discussed.

Ms. Fegley said that if the OAC has advice on issues other than those specified in the charter, then the OAC is free to advise DNR on those issues.

Dr. Chatwin suggested keeping the three original subcommittees, rather than dividing the subcommittees by charge. According to this scheme, the cost-effective restoration subcommittee would consider both substrate and funding issues. Dr. Meritt felt that substrate and funding require different expertise, and that those issues were best addressed separately, then brought back together.

Based on the subcommittee discussion and the fact that biological reference points are not ready for discussion, four subcommittees were established: Funding, Substrate, Land Use, and Enforcement. Ms. O'Neill volunteered to chair the Substrate Subcommittee, and Mr. Robertson agreed to chair the Land Use Subcommittee.

Dr. Schott suggested that the Land Use Subcommittee could collect information on oysters and Land Use to complement the Ms. McGinty's presentation on finfish and land use.

Dr. Lipton commented that substrate solutions can be implemented relatively quickly, whereas addressing land use issues is a longer-term process.

Dr. Schott commented that the two issues are related, and that we should not be placing substrate in waters where oysters won't grow because of upstream impacts.

Delegate O'Donnell warned not to make decisions on oysters based on Ms. McGinty's finfish presentation.

Dr. Chatwin inquired what will happen between now and the next meeting. Delegate O'Neill said to let each subcommittee decide how it will proceed from here. Dr. Meritt suggested that the subcommittees make reports available before the next meeting so that the full OAC has time to read the reports. He also offered meeting space for the subcommittees at Horn Point Laboratory. Dr. Chatwin advised each subcommittee to develop a work plan, decide if outside input is necessary, and suggest presenters who may provide information that would help the OAC address its charges. Mr. Robertson suggested having the subcommittee submit their work plans to the entire Commission. Ms. O'Neill advised that each subcommittee should have a chairperson before commencing work.

Dr. Chatwin thanked the commission for their input.

## New Business

Mr. Webster announced two upcoming meetings. The 2013 Maryland Shellfish Aquaculture Conference is scheduled for April 8 at the Doubletree Hotel in Annapolis. Several aquaculture producers from other states and Canada will be speaking about their experience in the industry, and there will be a session on marketing aquaculture products organized by Mr. Steve Vilnit of DNR. Contact Martha Milligan at (410) 827-8056 for more information or to register. The Interstate Seafood Seminar, a long-running program for shellfish sanitarians and health officials as well as industry, will take place in Rehoboth, DE, April 17-19. Contact Debbie Rouse at (302) 739-9939 for more information.

### **Public Comment**

Mr. Ken Hastings of the Mason Springs Conservancy said that Charles County had benefited from the work done by DNR. Although the DNR land and water use tools are not perfect, nobody has come up with anything better. Mr. Hastings stated that nobody has come up with any data contradicting Ms. McGinty's results showing the impacts of development on fish, and that Ms. McGinty's work on land use and fish could be repeated with oysters. He mentioned that there is less protection of sensitive areas now than there was before Senate Bill 236, and that this bill favors a few select people. People would like to repeal this bill, but they are not looking at other ways to achieve conservation goals and protect sensitive areas.

Ms. Rachel Dean expressed concern that the public won't know who is on the OAC subcommittees and that subcommittees will be working in private. Dr. Chatwin said that the subcommittee membership will be available to the public, and that no decisions will be made in the subcommittee. Delegate O'Donnell said that it was critical that the subcommittees are transparent otherwise critical input may be missed.

Mr. Gibby Dean commented that commercial watermen have done substantial work on some of the issues to be examined by the OAC, including the fishery management plan and enforcement.

Watermen worked with Mr. Webster and Dr. Meritt on the fishery management plan, and participated in a task force that produced a 115 page report on enforcement. Industry supported Senate Bill 525 on enforcement, but the bill failed in the past because it used taxpayer money. Mr. Dean stated that the bill was rejected this year because it specified the number of police officers needed, and NRP objected to the bill because of new technology enabling them to get by with fewer officers. Mr. Dean stated that the county oyster committees were ineffective, and that he would like the watermen to have a more unified voice.

## Closing

Dr. Chatwin adjourned the meeting at 7:10.