

Proposal #1

A MANAGEMENT PLAN FOR THE ST. MARY'S RIVER OYSTER RESTORATION AND FISHERY

Prepared by the St. Mary's River Watershed Association

NOVEMBER 1, 2016

MISSION STATEMENT

To protect the shellfish sanctuary as currently designated, to promote the sustainability of a thriving oyster population that provides sufficient ecological services to delist the St. Mary's River from the EPA's 303d list of impaired rivers, to continue to support ongoing research and restoration, and to support a well-managed fishery downstream of the sanctuary including both aquaculture and open harvest.

GOALS AND OBJECTIVES

- Protect and restore the shellfish sanctuary at its current boundaries and size of 1304 acres.
 1. Designate the St. Mary's River oyster sanctuary for restoration using federal dollars as one of five tributary sanctuaries to be restored by 2025 under the Bay TMDL requirements.
 2. Continue to support NGO- and institutionally-led restoration and research projects where complimentary with federal and state restoration activities.
 3. Terminate the aquaculture permitting program within the sanctuary in order to maximize the restoration acreage available to the federal and state restoration activities.
 4. Grandfather existing aquaculture leases that conform to current regulatory requirements and terminate any that fail to adhere to their operational plan or state regulation.
- Increase opportunities for aquaculture within the St. Mary's River downriver from the sanctuary.
 1. Beginning in 2017, designate thirty acres each year of unproductive bottom conducive to aquaculture for aquaculture.
 2. Permit only Maryland residents and businesses to operate these lease areas.

JUSTIFICATION

Maryland's sanctuaries were expanded from 8% to 24% of productive bottom in 2010. The newest sanctuary areas established were specifically targeted to:¹

- Facilitate development of natural disease resistance – the long-term strategy for restoring oysters;
- Protect about half of the Bay's most productive oyster grounds ("best bars") as determined by an analysis of Fall Survey data compiled from 1996 to 2007;
- Have high restoration potential based on water quality and other factors;
- Provide essential natural ecological functions that can not be obtained on a harvest bar;
- Serve as reservoirs of reproductive capacity, generating larvae to populate other areas, including public shellfish fishery areas;
- Provide a broad geographic distribution across all salinity zones;
- Increase our ability to protect these important areas from poaching.

Investment has happened in the St. Mary's River before and since the sanctuary was designated on October 1, 2010. An enormous amount of **human resources and dollars have been invested in restoring this river** and St. Mary's College of Maryland utilizes this sanctuary as a research opportunity for professionals and students.

- More than \$3 million in federal and state dollars were invested in water quality data collection and assessment through the ten-year St. Mary's River Project 1998-2007.
- In 2009, the St. Mary's River joined the Marylanders Grow Oyster program and has planted year-old spat in five locations within the St. Mary's River oyster sanctuary.
- In 2012, the St. Mary's River Watershed Association, in partnership with Leonardtown Rotary and St. Mary's College of Maryland, began a five-year restoration project on 5 acres adjacent to the college waterfront. This innovative project seeks to create reefs of concrete that mimic the historic oyster reefs of the early 1600s. Thirty eight reefs are installed to within one foot of mean low water—some of these reefs over six feet in height. Varying treatments and spat plantings support ongoing research by students and professionals. To date more than 1000 volunteers have contributed labor, over 35 million spat have been planted, and more than \$254,000 has been spent creating this vibrant habitat. What was a 95% barren mud bottom in 2011 is now a thriving diverse habitat with indisputable ecological and reproductive benefits.
- The St. Mary's River Watershed Restoration Action Strategy (2012-1016)ⁱⁱ calls for the restoration of oysters and the protection of sanctuaries in order to achieve significant gains in water quality so the St. Mary's River can be de-listed under section 303(d) of the Clean Water Act.

Ecological gains are quite apparent and development of **disease resistance** is encouraging.

- Evidence suggests that oysters are living longer within the sanctuary and may have developed some resistance to Dermo. Recruitment of these survivors to down river locations spreads disease resistance and increases biomass throughout the river system.
- Excellent spat strikes every year since 2012 indicates that the biomass of adult oysters has increased significantly and bars are populated with multi-class oysters.
- Significant recruitment into the lower river is supported by a seven-fold increase in the public harvest from 2009 to 2015. The sanctuary area is less than 15% of the river's total area.
- Water clarity has increased significantly with residents publically commenting and commending the sanctuary and restoration work. For the first time in more than two decades clarity readings exceeded three meters in October 2014 (2.9 meters in October 2015).
- Recreational fishing for white perch, bluefish, and rockfish has improved greatly in the upper half of the river over the past four years.

Opening the sanctuary to oyster harvesting would destroy much of what has been accomplished to date and severely restrict research opportunities.

ⁱ Maryland Department of Natural Resources web site "Sanctuaries—Current Maryland Oyster sanctuaries; <http://dnr2.maryland.gov/fisheries/Pages/oysters/sanctuaries.aspx> (accessed November 1, 2016).

ⁱⁱ St. Mary's River Watershed Restoration and Action Strategy (2016) and St. Mary's River Watershed Plan (2012), St. Mary's River Watershed Association and the Center for Watershed Protection: <http://www.smrwa.org/wras.html> (accessed November 1, 2016).

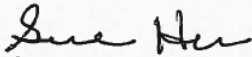
Proposal #2

December 1, 2016

Chris,

The proposal for sanctuary status for the Asbury Solomons oyster reefs is enclosed. I have also sent a copy to Matthew Pluta at the Midshore Riverkeeper Conservancy. The group is preparing a proposal and had requested to see ours.

I want to thank you for your suggestions and assistance as I prepared this proposal. Hopefully, our effort will be successful.

A handwritten signature in cursive script, appearing to read "Sue Hu".

Sue Hu

Go Green Committee Chair

Asbury Solomons Retirement Community

**PROPOSAL FOR CHANGES TO OYSTER MANAGEMENT AREAS to DNR and
OYSTER ADVISORY COMMISSION**

Organization Asbury Solomons Retirement Community

In response to "task 3" that was assigned to the OAC, this proposal is submitted for consideration. Maps that illustrate the proposal are attached.

Body of Water: Patuxent River

Sanctuary: Proposal is for new sanctuary at Asbury Solomons Retirement Community

Oyster Bars: Not applicable

Proposal:

The oyster project at Asbury Solomons Retirement Community has a unique history and a unique proposal for Sanctuary status.

Asbury Solomons has been an MGO participant for six years and is the only retirement community of its kind in the MGO program. Our program was begun in 2010 as one of nine sites under a permit issued to SMOCS (Southern MD Oyster Cultivation Society). Oysters raised in cages suspended from our pier were transferred to one of four breakwaters approximately twenty five feet off our Patuxent River waterfront. At that time, the site was not included in the 51 sanctuary program and DNR stated that it could not be considered until the 5 year review time period which is occurring now.

When SMOCS ceased operation at the end of 2013, Asbury Solomons applied for and received its own permit from DNR. Residents raised funds to systematically increase the number of oysters on each breakwater. Additional spat-on-shell have been purchased over four years from Johnny Oysterseed and from the Horn Point Hatchery to build healthier and more sustainable reefs. See the attached maps and a chronology of Asbury's annual planting.

From the beginning, the goal of the Asbury Solomons Oyster Project has been to improve and enhance the quality of habitat for fish and shellfish. Oysters have never been harvested from the proposed site and there is no intention to ever do so.

During the winter of 2015, several unsuccessful attempts were made by watermen divers to reach our oysters. Although these efforts were thwarted temporarily, the only permanent solution to prevent destruction of the site is to gain sanctuary status.

Asbury is suggesting the following dimensions for the 2.3 acre proposed rectangular sanctuary site: a length of 1000 feet along the shoreline with a width extending 100 feet into the Patuxent River. This 100 foot width is needed to protect oysters planted on the long side of each breakwater facing the river and around each end. Oysters have not been planted on the sides facing the shore because water depth during winter low tides would expose oysters planted there to high risk for exposure at freezing temperatures. See the attached maps.

Seed or Shell Planting Proposal

As stated above, the proposed sanctuary includes four breakwaters along Asbury Solomons Patuxent River waterfront. Each breakwater has a 2.5 foot rock extension from its base. Therefore, additional shell substrate is not needed. In order to promote healthy reef growth, the Go Green Committee at Asbury Solomons is committed to adding additional spat-on-shell annually to each of the four breakwaters.

Bottom Exchange

The proposed sanctuary does not affect existing public fishery ground or sanctuaries. Therefore, no bottom exchange is necessary.

Summary of reasons to give sanctuary status to Asbury Solomons

1. As indicated above, the Asbury oyster restoration site has been providing environmental benefits for more than six years. The estimated number of oysters planted since 2010 is 1,360,000 with an estimated survival of 50%. This means that at least 25 million gallons of water are being filtered daily. The health of the lower Patuxent River benefits from this filtering effort.
2. The Asbury site, although only an estimated 2.3 acres, can ENHANCE THE TOTAL SANCTUARY ACREAGE with NO LOSS OF BOTTOM FROM THE PUBLIC FISHERY.
3. There is abundant evidence of natural spat set at the Asbury site. Successful natural spat set not only benefits our reefs but also supports additional available larvae for the public fishery bar located directly out from the proposed Asbury sanctuary.

Conclusion

The benefits of the reefs at Asbury Solomons have been growing over six years. The Asbury Go Green Committee has a plan in place to continue and enhance those benefits. Sanctuary status is the only way to guarantee that these benefits can continue.

Estimated Number of Oysters Planted On Breakwater Reefs
Location: Asbury Solomons Retirement Community
Compiled by: Sue Hu Asbury Solomons Go Green Chair
September 30, 2016

June 2010 - December 2012 **106,500**

August 2, 2013

Spat purchased from Jon Farrington & planted on first reef north of the pier (Breakwater #2) First mass planting September 19, 2013

Oysters from Hungerford Creek cages & Asbury cages transferred to the reef **44,000**

Total No. of Oysters Planted in 2013 **173,500**

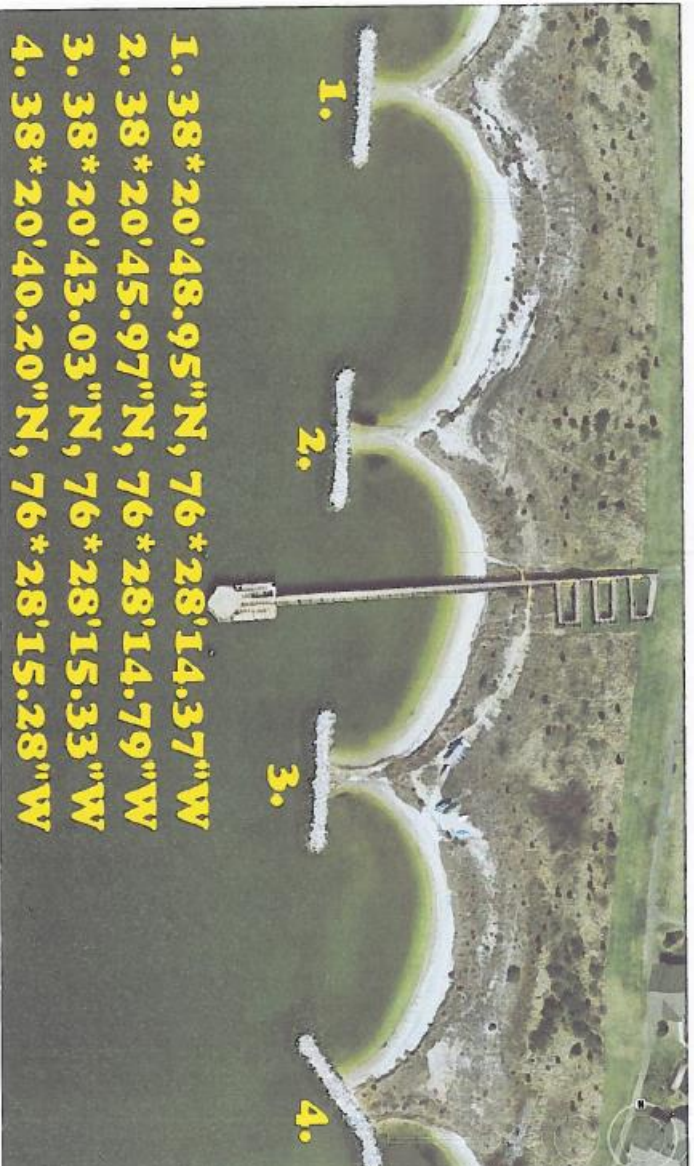
Total No. of Oysters Planted since 2010 **280,000**

August 28, 2014

Oyster spat purchased from Horn Point Hatchery in Cambridge, MD delivered to Jon Farrington at Watermen's Wharf in Solomons & subsequently planted by Jon Farrington on 1st breakwater south of the pier (Breakwater #3) Second mass planting **370,000**

September 20, 2014

Oysters from Hungerford Creek cages & Asbury cages transferred to reef on Breakwater #2 **44,000**



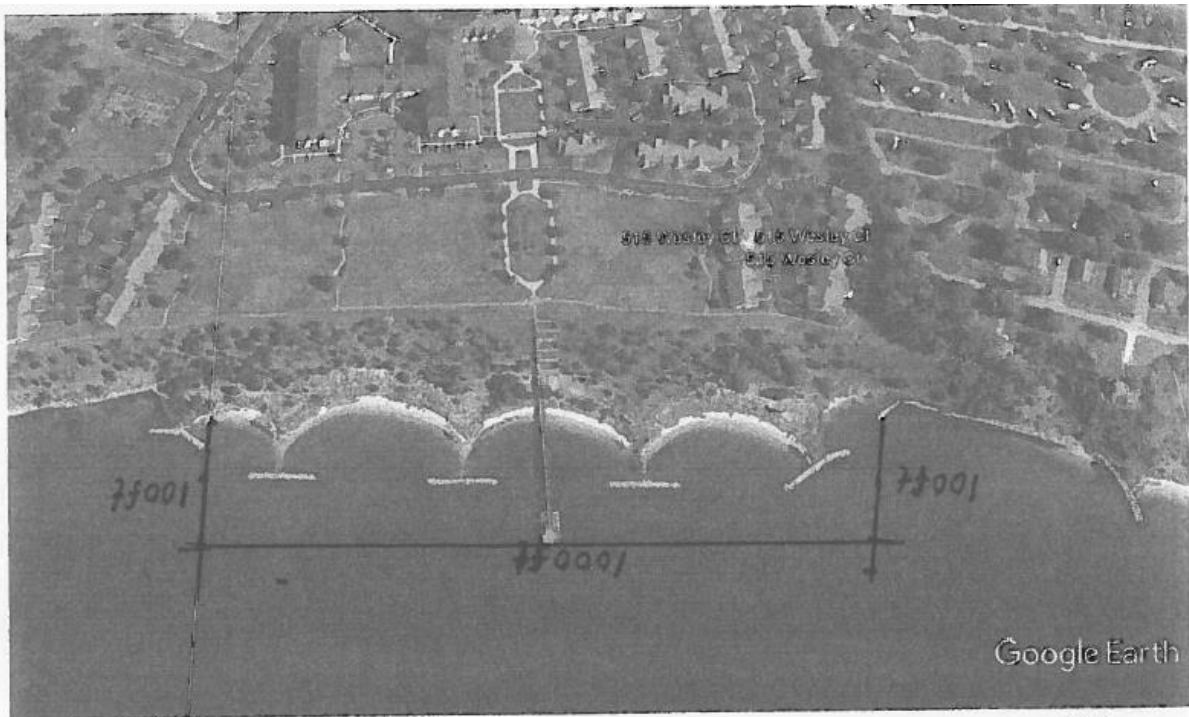
1.

2.

3.

4.

1. 38°20'48.95"N, 76°28'14.37"W
2. 38°20'45.97"N, 76°28'14.79"W
3. 38°20'43.03"N, 76°28'15.33"W
4. 38°20'40.20"N, 76°28'15.28"W



Google Earth



Proposed Sanctuary Area

$$1000 \text{ ft} \times 100 \text{ ft} = 100,000 \text{ ft}^2 = \frac{100,000}{43,560} = 2.3 \text{ Acres}$$

Proposal #3

PROPOSAL FOR CHANGES TO OYSTER MANAGEMENT AREAS to DNR and OYSTER ADVISORY COMMISSION

Organization: Midshore Riverkeeper Conservancy

Body of Water:

Part I: Choptank River, Mid-Bay and Eastern Bay
Part II: Miles River
Part III: Middle Choptank River

Sanctuary:

Part I: N/A
Part II: Miles River Sanctuary
Part III: Sandy Hill Sanctuary

Oyster Bars:

Part I: (Previously Delisted Harvest Reserve Areas)	Oyster Bars
Howell Point Oyster Reserve (Chart 20)	Beacons & Howell Point Addition (Bar #11? 9a?, 9b?)
La Trappe Creek Reserve (Chart 20)	La Trappe (Bar #12)
Cox Neck Reserve (Chart 11)	Cox Neck (Bar #25)
Poplar Island Oyster Reserve (Chart 14)	Poplar Island (Bar #1)
Part II:	Oyster Bars
Miles River Sanctuary (Chart 12)	Gibsons Flats (Bar #4)
	Bazzles Hill (Bar #5)
Part III:	Oyster Bar
Sandy Hill Sanctuary (Chart 20)	Sandy Hill Bar (Bar #7)

Proposal:

Part I: Reinstate these oyster bars as harvest reserve areas and use them in a three year rotational harvest program. Gear types should be limited to diving and hand tong only in order to minimize damage to the ecosystem, the structure of the bar, and the health of non-market size oysters.

Part II: Establish these oyster bars as an MGO planting site for the Miles River MGO Program.

Part III: Establish these oyster bars as an MGO planting site for the Middle Choptank River MGO Program.

Seed or Shell Planting Proposal:

Part I: Plant hatchery or wild seed on a schedule that meets the agreed upon terms of a three year rotational harvest program

Part II: Plant oyster that are grown and cared for through the Marylanders Grow Oysters Program by members of the public that live along shores of the Miles River.

Part III: Plant oyster that are grown and cared for through the Marylanders Grow Oysters Program by members of the public that live along the middle Choptank River.

Bottom Exchange Proposal: N/A

Task 3 – “Provide DNR with recommendations for changes to oyster sanctuaries and public fishing areas based on the available data in the DNR 5-Year Oyster Review Report. The OAC was advised to consider the public fishing areas in making their recommendation. The goal of the sanctuary program is to protect 20%-30% of the designated oyster bottom in Maryland as area for restoration and sanctuary. Currently 24% of the oyster bottom in Maryland is protected as sanctuary and 76% is open to use for the public fishery.”

Proposal Guidelines: Maintain the overall current ratio of sanctuary areas (20%-30%); Equivalent exchange of area types to maintain the 20-30%; Changes to areas is viewed as limited, not a wholesale opening of sanctuaries or closing of public bottom; Investment is needed for areas that are proposed for change of status (seed or shell plantings, for example, in order to boost populations); Rotational managed harvest is suggested for areas proposed for harvest.

Maps: DNR suggests including a map in the proposal. Maps can be found at:
<http://dnr2.maryland.gov/fisheries/Documents/ShellfishClosureBook.pdf>

Background Information: Oyster information on specific areas of the bay can be found in the 5 Year Oyster Review Report, specifically in Appendix A and B. <http://dnr.maryland.gov/fisheries/Pages/oysters/5-Year-Oyster-Review-Report.aspx>

Contact for Questions: DNR Shellfish Division, Christopher Judy, 410-260-8259

Reasons to Not Open Areas Proposed by County Oyster Committees (Info from the 5 Year Report):

- Miles River Sanctuary proposal to hand tong from October to February then dredge in March – This proposal eliminates any buffer between the public harvest area and the planting site for the Miles River MGO program causing an enforcement concern. Dredging in March would also compromise any vertical growth of oyster reefs within the proposed public fishery bars and displace any oysters that are not market size. According to the Fall Survey, the average mortality after sanctuary establishment was lower than the average mortality before sanctuary establishment.
- Wye River Sanctuary proposal to hand tong and dive – This is a Tier 1 sanctuary in which the 2014 patent tong survey showed that 52% of samples had oysters and 2 of the samples met the minimum threshold (15 oysters per sq. meter) to be considered restored. According to the Fall Survey the average mortality after sanctuary establishment was lower than before sanctuary establishment. Also, carving out the proposed area for public harvest would create an enforcement issue for that part of the Wye River Sanctuary.
- Sandy Hill Sanctuary proposal to open Sandy Hill Bar for a rotational harvest program – Sandy Hill Sanctuary is classified as a Tier 1A sanctuary. This sanctuary was created based on OAC recommendations to have sanctuary areas throughout a variety of salinity levels. Over the years surveys have shown that there has been no major loss of habitat in this sanctuary. Since the sanctuary was established in 2009, 93.89 million hatchery spat-on-shell were planted and therefore any harvest threats in this area would be considered a waste of restoration efforts. According to the Fall survey average biomass of oysters from Sandy Hill Bar was greater after sanctuary establishment than before. Also based on the Fall Survey, average mortality after

sanctuary creation was lower than before sanctuary creation. Dermo prevalence was high in 2013. An increased prevalence of oyster disease helps drive natural selection and results in the breeding of tougher oysters - a goal of the sanctuary program.

- Little Choptank River Sanctuary proposal to open several bars within the Little Choptank River for a rotational harvest program - The Little Choptank River Sanctuary is a Tier 0 sanctuary and has been selected for large-scale oyster restoration under the 2014 Chesapeake Bay Watershed Agreement. The 2014 patent tong survey showed that 60% of samples had oysters, and 29% of the samples met the minimum threshold (15 oysters per sq. meter) to be considered restored. The number of market-sized oysters has increased since the establishment of the sanctuary, likely due to low mortality, lack of harvest, and seed planting. According to the Fall Survey, the average mortality after sanctuary establishment was lower than the average mortality before sanctuary establishment.
- Cook Point Sanctuary proposal for diving and dredging only – This is a Tier 1A sanctuary and has been used as a research area by the US Army Corps of Engineers, University of Maryland, and Chesapeake Bay Foundation. Research is vital to understanding the progress of restoring the oyster populations. Restoration plantings include seed, reef balls and shell/alternative substrate.
- Upper Choptank River Sanctuary proposal to declassify Boolingbrooke Sand Bar and Sugar Loaf Bar – This is a Tier 1A sanctuary experiencing below average mortality. Opening these specific bars would also create an enforcement concern for the rest of the sanctuary.

Proposal #4

PROPOSAL FOR CHANGES TO OYSTER MANAGEMENT AREAS to DNR and OYSTER ADVISORY COMMISSION

Organization: Friends of the Wicomico River

In response to "Task 3/1 that was assigned to the OAC, this proposal is submitted for consideration. A maps/charts illustrating the proposal are attached.

Body of Water: Nanticoke / Wicomico Rivers

Sanctuary: Expand Nanticoke sanctuary across the mouth of the river from Sandy Point east to Waterview. Create a new Sanctuary in the Wicomico River (old MDE Closure area) from Mouth of Ellis Bay across to Mount Vernon Point and up river to the MDE Closure area. See attached closure charts marked in red.

We appose opening parts of the Nanticoke sanctuary to any form of commercial harvest.

Oyster Bars: Expand commercial harvested oyster bars in areas of the Nanticoke and Wicomico rivers outside of the sanctuaries.

Proposal:_____ The additional sanctuary areas are needed to protect existing and new aquaculture areas and to continue supporting spat set on tangier sound commercial bars.

Create three commercial rotational harvest areas between (Area A) Nanticoke River bars (20,33,18,) (Area B) Fishing Bay bars (12,15,15a, 16) and (Area C) Wicomico River bars (27,29,28,31). See attached closure maps marked in yellow.

Include the Nanticoke and the Wicomico Rivers for cosideration as Restored Tributaries.

Seed or Shell Planting Proposal: Develop seed and shell planting program for a three (3) year rotational commercial harvest.

Bottom Exchange Proposal:_____

None proposed.

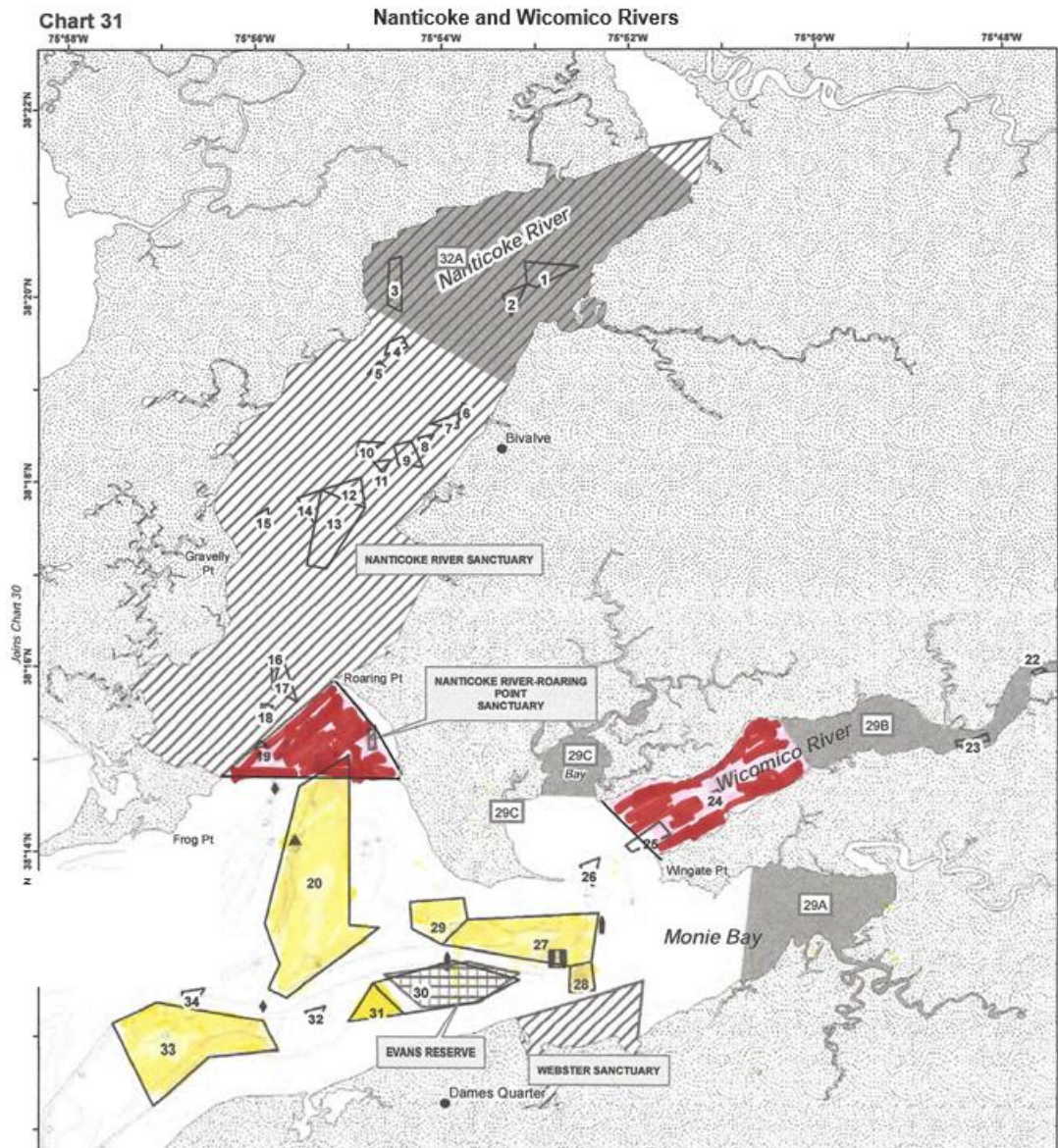
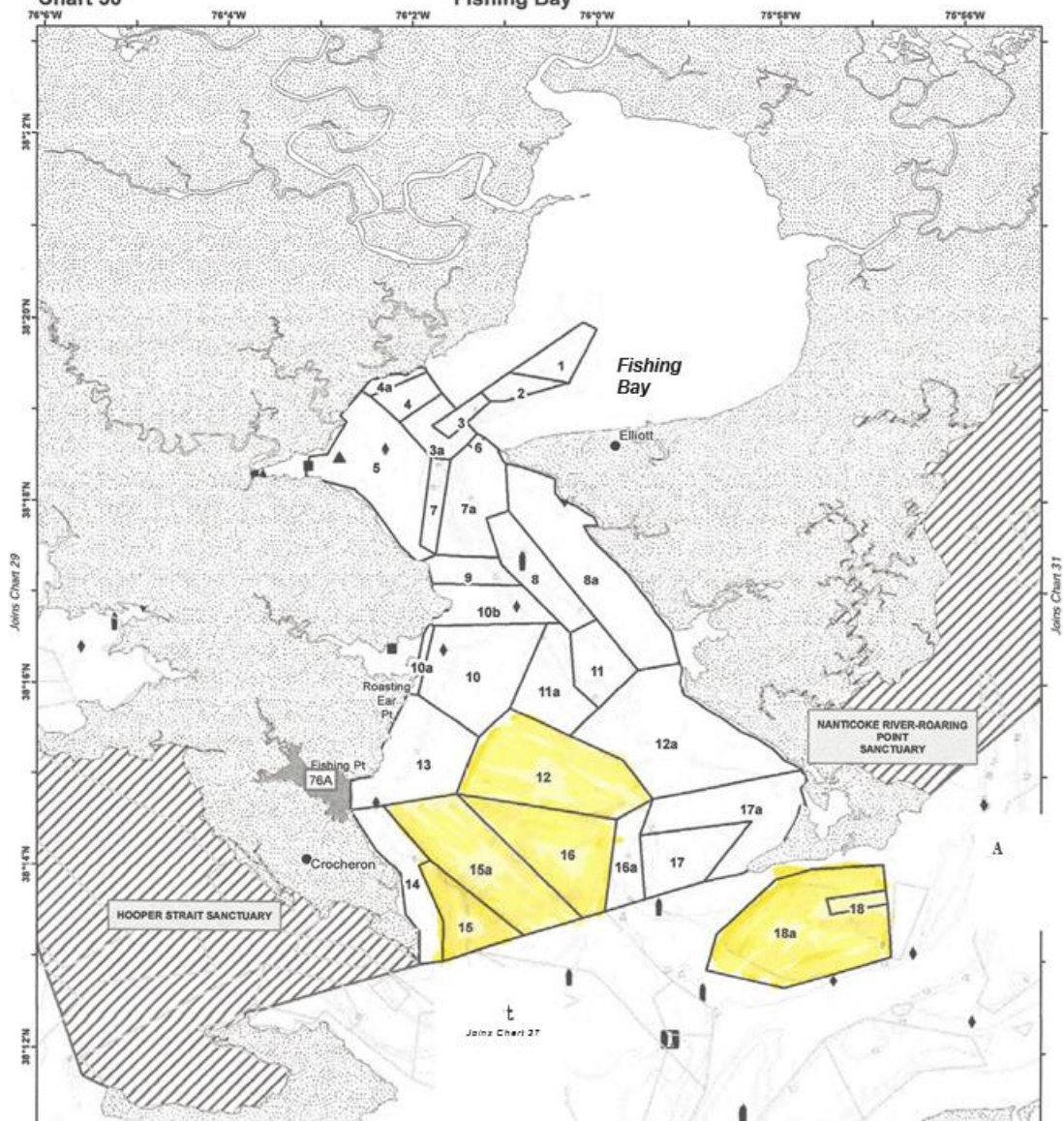
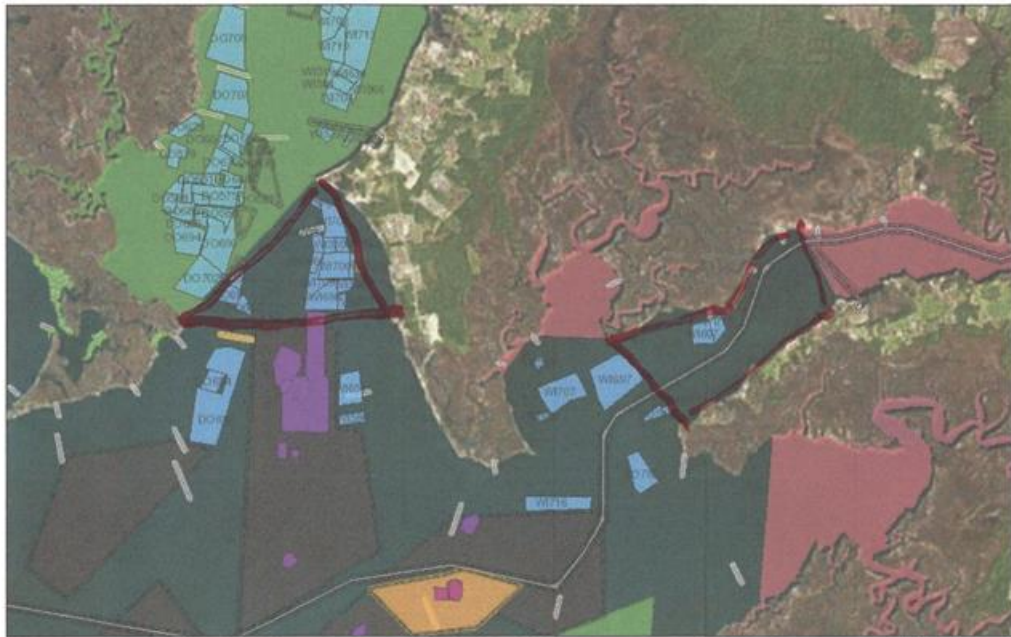


Chart 30

Fishing Bay



Aquaculture Siting Tool



November 30, 2016

• Pre-Approved Leasing Areas

• Restoration Sites

0 0.5 1 1.72 2.24 2mi

2009-2016



Aquaculture Enterprise Zones



Harvest Reserves



Restoration Sites 2009 - 2016

Harvest Reserves 150ft Buffer

Legend

Proposal #5

PROPOSAL FOR CHANGES TO OYSTER MANAGEMENT AREAS to DNR and OYSTER ADVISORY COMMISSION

Organization: **Phillips Wharf Environmental Center (PWEC)**

In response to "Task 3" that was assigned to the OAC, this proposal is submitted for consideration. A map illustrating the proposal is attached.

Body of Water: Choptank River

Sanctuary: Howell Point Beacon

Oyster Bars: NONE

Proposal: **Background:** PWEC has planted over 550,000 yearling oysters over the course of 5 years (2012-2016) on a 0.25 acre site in Harris Creek (averaging ca 100,000 smalls planted per year), as part of the Marylanders Grow Oysters program (MGO). While we have achieved a density of at least 15 oysters m⁻² (see attached), the results of our efforts are immensely diminished by the tributary-scale restoration efforts completed in Harris Creek during 2013-15. Further planting of our MGO oysters on this site will contribute relatively little to oyster restoration and sustainability moving forward. In addition, further plantings on this site will only bury the existing thriving oyster population we have built over the past 5 years. Additional background information is appended on pages 4-10 of this document.

Proposal: PWEC proposes to plant our MGO oysters on Howell Point Beacon Sanctuary beginning in 2017. This sanctuary has adequate hard bottom for planting on the scale of MGO programs (1.6 ac). There has been little recent recruitment according to the 2015 and 2016 Fall Survey:

- 2015 - 1 sample. The only live oysters collected were market-sized (74 per bushel). Mortality was 13.95%.
- 2016 - 1 sample. Live oysters collected were 68 market-sized and 6 spat per bushel. Mortality was 17.1%.

Addition of smalls on an annual basis will:

- mitigate the lack of natural recruitment on this sanctuary,
- increase the density of reproductive oysters on the sanctuary and increase recruitment potential, and
- continuously add natural shell habitat necessary to increase the probability of a natural spat strike.

Plantings will occur in the buoyed portion of the sanctuary, within the green area shown on the map provided in the 5-Year Report (below).

Additional specific information from the Report regarding Howell Point Sanctuary is appended immediately below.

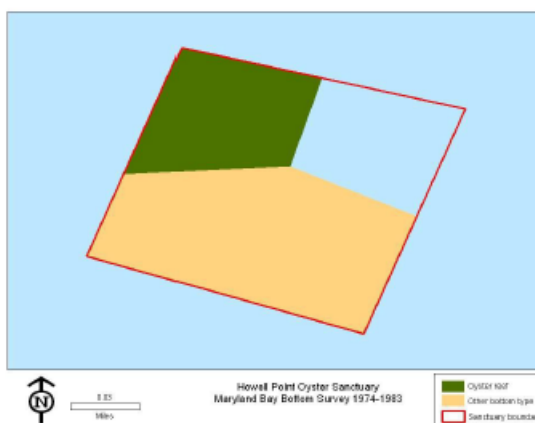
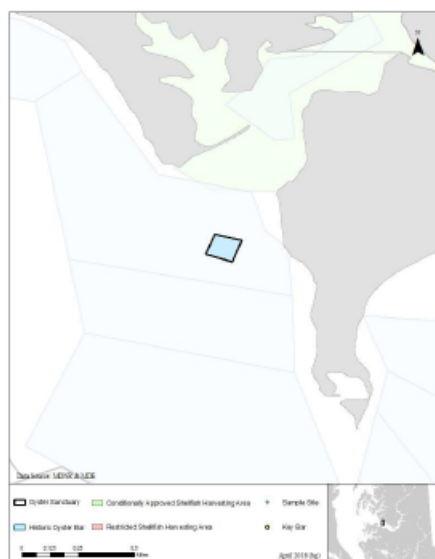
The Howell Point Sanctuary is located in middle Choptank River, a low salinity (less than 12 ppt) region (Figure A.14-1). The sanctuary was created in 2001 and encompasses 6 acres of historic oyster bottom (as charted in the Yates Oyster Survey from 1906 to 1912 plus its amendments), all located within the Beacons oyster bar. The Howell Point Sanctuary was established for the US Army Corps of Engineers to study the effectiveness of three-dimensional oyster habitat for use in oyster restoration. Location on a three-dimensional reef (top, bottom, or side) did not affect growth rates or disease acquisition. In high energy areas, waves may knock oysters from the top of the mound to the base.

Oyster Population Characteristics: The Fall Survey has sampled the Howell Point Sanctuary one time since 1990 in 2015 when one sample was taken. The only live oysters collected were market-sized (74 per bushel). Mortality was 13.95%. The Department has not conducted any patent tong population surveys on the Howell Point Sanctuary since 1990. (The 2016 MFS found 68 markets/bu, 0 small/bu and 6 spat/bu on Howell Point Addition sanctuary, a buoyed sanctuary in the Choptank River.)

Restoration and Replenishment Activities: No replenishment efforts took place in this area before it was established in 2001. In 2000-2001, the Army Corps of Engineers planted two shell mounds approximately 6 feet high and in two flat areas using dredged shell. Construction was begun just prior to sanctuary establishment. This area was then partially seeded with hatchery spat-on-shell (Table A.14-1). In 2011, the area was planted with hatchery spat-on-shell. No restoration activities have taken place for 5 years.

Table A.14-1. Replenishment and restoration planting activities occurring since 1990 in the area established as Howell Point Sanctuary in 2001. S = planting occurring after the area was established as a sanctuary.				
Year	Planting Substrate Type	Area Planted (acres)	Thousands of Bushels Planted	Millions of Spat Planted
2000-2001	Dredged Shell	6.4	184	-
2001(S)	Hatchery Spat-on-Shell	0.4		0.8
2011(S)	Hatchery Spat-on-Shell	7.6		45.9

Bottom Habitat Characteristics: The area that is now the sanctuary was surveyed during the Bay Bottom Survey (1974 to 1983) to determine its bottom type (Figure A.14-2). Of the 4.9 acres surveyed within the sanctuary, 1.6 acres (32%) were classified as oyster reef habitat. There have been no additional bottom surveys using side scan sonar of this area.



Howell Point Sanctuary bottom types. Data from Maryland Bay Bottom Survey from 1974-1983. Tan and green colored areas depict the areas examined during the survey.

Seed or Shell Planting Proposal:

Approximately 90 bushels of MGO smalls annually, beginning in 2017 if proposal is accepted. Actual oyster counts will depend on spat count produced initially by Horn Point Hatchery, adjusted by overwintering mortality while tended by MGO volunteers. Estimated 100,000 smalls planted annually.

Bottom Exchange Proposal:

No bottom exchange is proposed. These plantings will be used to enhance the oyster population and improve habitat on an existing sanctuary that has not received restoration investment since 2011. No bottom will be withdrawn from the industry.

Organization Contact Information

Carol B. McCollough, VP
Phillips Wharf Environmental Center
6129 Tilghman Island Road
PO Box C
Tilghman, MD 21671
oysters@pwec.org
410-443-4221 (cell)
443-258-6061 (office direct)
410-886-9200 (PWEC main line)

Kelley Phillips Cox, Exec. Director
Phillips Wharf Environmental Center
6129 Tilghman Island Road
PO Box C
Tilghman, MD 21671
kelley@pwec.org
410-886-9200 (PWEC main line)

Task 3 – “Provide DNR with recommendations for changes to oyster sanctuaries and public fishing areas based on the available data in the DNR 5-Year Oyster Review Report. The OAC was advised to consider the public fishing areas in making their recommendation. The goal of the sanctuary program is to protect 20%-30% of the designated oyster bottom in Maryland as area for restoration and sanctuary. Currently 24% of the oyster bottom in Maryland is protected as sanctuary and 76% is open to use for the public fishery.”

Proposal Guidelines: Maintain the overall current ratio of sanctuary areas (20%-30%); Equivalent exchange of area types to maintain the 20-30%; Changes to areas is viewed as limited, not a wholesale opening of sanctuaries or closing of public bottom; Investment is needed for areas that are proposed for change of status (seed or shell plantings, for example, in order to boost populations); Rotational managed harvest is suggested for areas proposed for harvest.

Maps: DNR suggests including a map in the proposal. Maps can be found at:
<http://dnr2.maryland.gov/fisheries/Documents/ShellfishClosureBook.pdf>

Background Information: Oyster information on specific areas of the bay can be found in the 5 Year Oyster Review Report, specifically in Appendix A and B. <http://dnr.maryland.gov/fisheries/Pages/oysters/5-Year-Oyster-Review-Report.aspx>

Contact for Questions: DNR Shellfish Division, Christopher Judy, 410-260-8259

Proposal #6

PROPOSAL FOR CHANGES TO OYSTER MANAGEMENT AREAS to DNR and OYSTER ADVISORY COMMISSION

Organization: __ Mill Cove Neighbors _____

In response to "Task 3" that was assigned to the OAC, this proposal is submitted for consideration. A map illustrating the proposal is attached.

Body of Water: Mill Cove off Patuxent River in St. Mary's County

Sanctuary: Propose MGO sponsored oyster reef be included as a sanctuary

Oyster Bars:

Proposal: Six years ago members of the Southern Maryland Oyster Cultivation Society (SMOCS) put down 50 bushels of clam and oyster shell near the mouth of Mill Cove in St. Mary's County. SMOCS has since been disbanded. Every year MGO programs have provided to the former SMOCS members and about 20 other neighbors with spat on shell which have been placed on the reef after they are grown for a year. The reef is not in condemned waters and the area should be a sanctuary to protect it from harvest. Enclosed is a map of the area.

Thanks,
Robert Willey

Proposal #7

PROPOSAL FOR CHANGES TO OYSTER MANAGEMENT AREAS to DNR and OYSTER ADVISORY COMMISSION

Organization: **Whitehall Bay Conservancy**

In response to "Task 3" that was assigned to the OAC, this proposal is submitted for consideration. A map illustrating the proposal is attached.

Body of Water: **Whitehall Bay**

Sanctuary: **All of Whitehall Bay, from a line beginning at Hackett's Point (38.9873 degrees N, 76.4252 degrees W) to Possum Point at the entrance to Mill Creek (38.9932 degrees N, 76.4489 degrees W).**

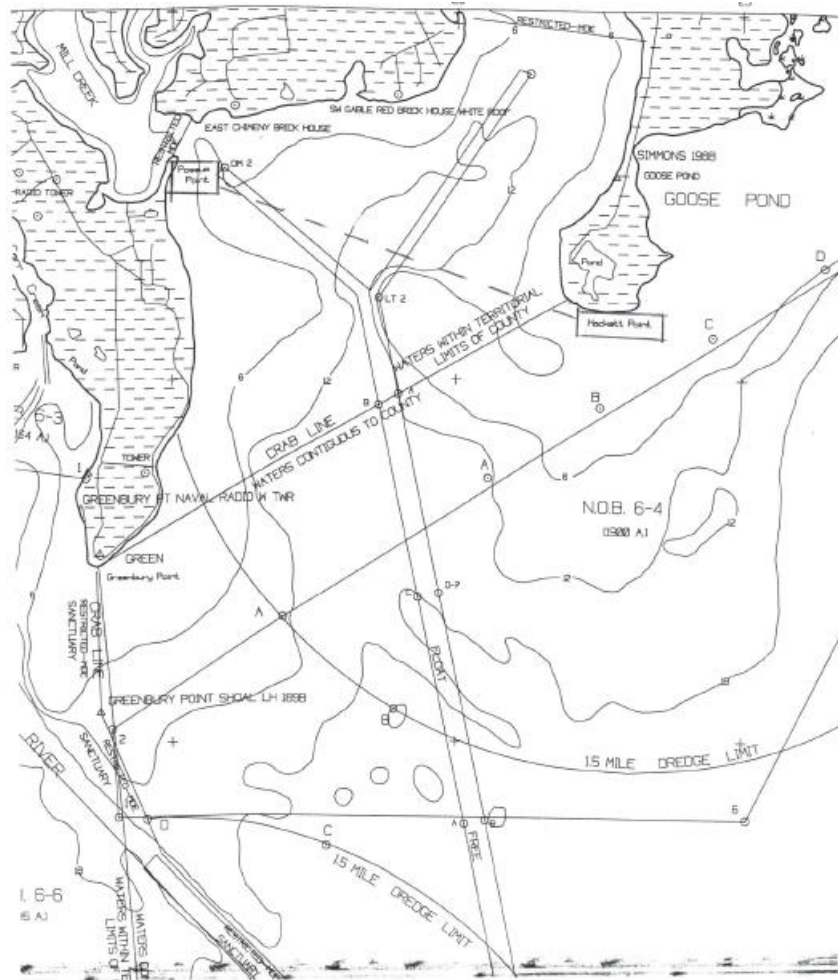
Oyster Bars: **Historic oyster reefs in Whitehall Creek**

Proposal: **Reestablish previously viable oyster reefs located in Whitehall Bay, within the sanctuary area described above.**

Seed or Shell Planting Proposal:

Deposit spat raised by nearly 110 oyster gardeners located on the various tributaries of Whitehall Bay (Mill Creek, Burley Creek, Minnow Creek, Ridout Creek, Whitehall Creek and Meredith Creek). In 2016, as in the previous 4 years, these gardeners provided nearly 85 bushels of spat to the Severn River oyster reef.

Bottom Exchange Proposal:



Proposal #8

PROPOSAL FOR CHANGES TO OYSTER MANAGEMENT AREAS to DNR and OYSTER ADVISORY COMMISSION

Organization: Chesapeake Beach Oyster Cultivation Society (CBOCS)

In response to "Task 3" that was assigned to the OAC, this proposal is submitted for consideration. A map illustrating the proposal is attached.

Body of Water: Chesapeake Bay

Sanctuary: Old Rock Reef

Oyster Bars: 1 mile north east of Fishing Creek in Chesapeake Beach

38 42 04.1

76 30 35.4

Proposal:

Maintain existing sanctuaries especially MGO sanctuaries. Hundreds of people have been working hard for the past years to restore the damage caused by over harvesting and disease. A prime example is the Old Rock Reef. In the early 70's the reef was opened to harvesting. During the first 10 days 75,000 bushels of oysters were taken and within 2 years the reef was empty of oysters. For 40 years there was no filtering of water by oysters on the Old Rock reef. During that time the health of the Chesapeake Bay declined. CBOCS decided to join the MGO program to start restoration of the Old Rock Reef. To date we have planted 350,000 mature oyster spat on the reef. These oysters have been housed in cages protecting them from predators for 11 months before planting.

Politicians should realize that there are MANY MANY more votes from environmentalist, conservationists and recreational users of the Chesapeake Bay than there are waterman.

Seed or Shell Planting Proposal:

Bottom Exchange Proposal:

Mature spat planting should be increased as it has a very high survivability rate. Young spat is too susceptible to predators.

Rotational harvest is a BAD idea. Evidence is the Old Rock Reef. 40 years of no oysters does not help restore the bay.