



# **Homework #2 Results**

## **4<sup>th</sup> and 5<sup>th</sup> Candidate Restoration Partnership Sanctuaries**



## Votes for and against the 4<sup>th</sup> and 5<sup>th</sup> candidate restoration partnership sanctuaries

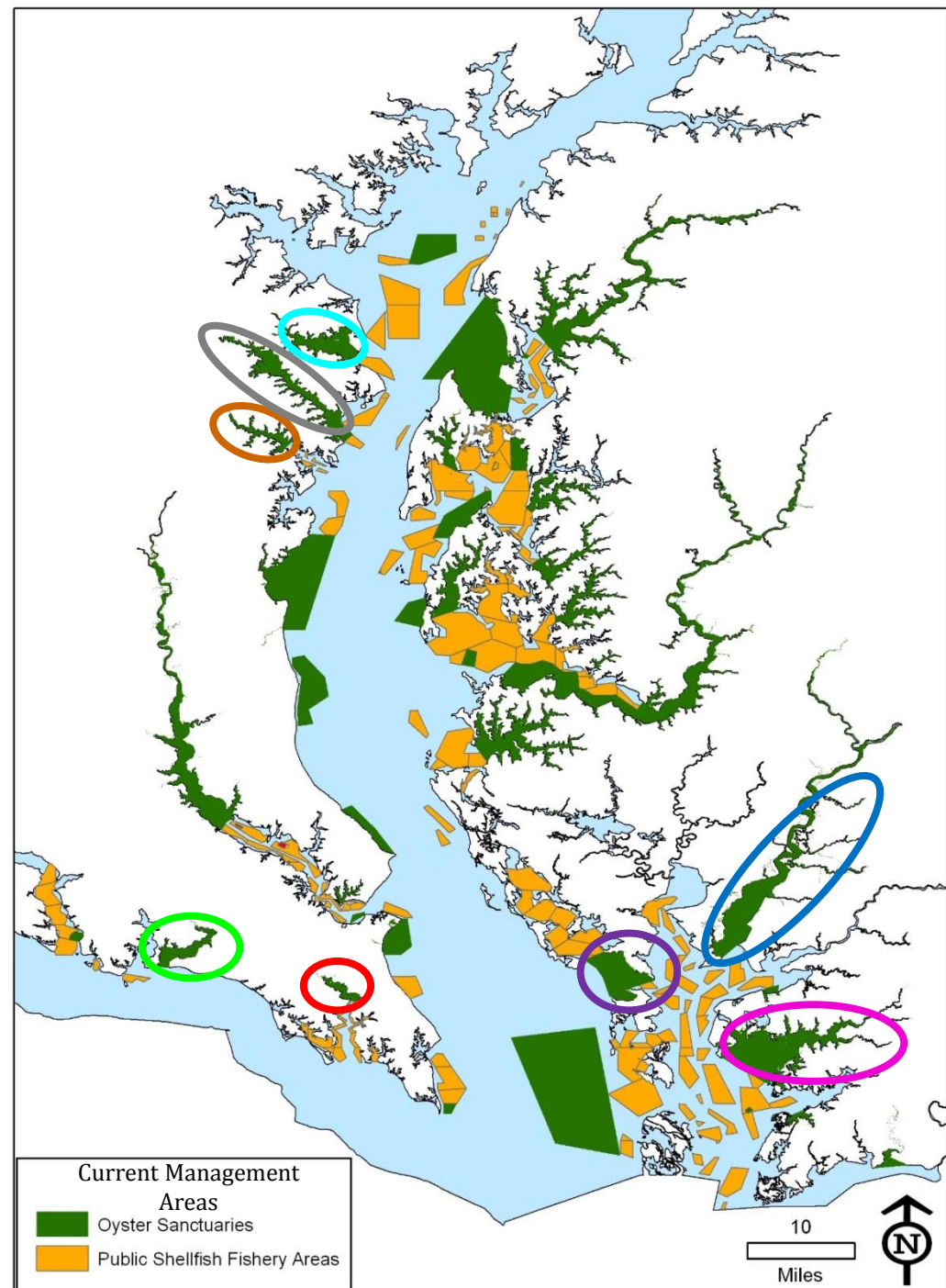
Sanctuary Name	Votes for				Total Votes Against
	1st Choice	2nd Choice	3rd Choice	Total Votes	
Breton Bay	5	7	0	12	6
Calvert Shore	0	0	0	0	1
Cedar Point	0	0	0	0	1
Hooper Strait	0	0	1	1	0
Magothy	0	1	1	2	6
Man-O-War Shoals/ Gales Lump	0	0	0	0	1
Manokin	8	2	1	11	10
Nanticoke	1	1	7	9	9
Plum Point	0	0	0	0	1
Severn	6	3	1	10	7
South	0	0	9	9	6
St Mary's	2	8	1	11	10

Based on 22 responses

Location of sanctuaries receiving votes for becoming a restoration partnership sanctuary:

- Breton Bay
- Hooper Strait
- Magothy
- Manokin
- Nanticoke
- Severn
- South
- St Mary's

Next 8 slides will list given pros and cons comments provided by commissioners for sanctuaries receiving votes towards becoming a restoration partnership sanctuary





# Breton Bay Sanctuary

Comments provided by the commissioners:

## Pros

- Potential for positive impact to Potomac River
- Located on western shore
- No impact to eastern shore
- Test area to see if sanctuaries work
- Bottom needs to be restored; in need of hard bottom
- Enforceable
- No waterman pushback; supported by watermen
- Low historic disease levels
- Potential for low disease-related mortality
- Good dissolved oxygen

## Cons

- Low salinity
- Low reproduction and recruitment
- Low historic spat set
- Selection for disease-resistant oysters may be negligible
- Potential for significant financial investment to restore



# Hooper Strait Sanctuary

Comments provided by the commissioners:

## Pros

- Not located in middle eastern shore near three current restoration partnership sanctuaries
- Medium enforceability
- High spat set and reproduction potential

## Cons

- None given



# Magothy River Sanctuary

Comments provided by the commissioners:

## Pros

- Located on western shore
- Not located in middle eastern shore near three current restoration partnership sanctuaries
- NEPA approved
- Enforceable
- MGO involvement

## Cons

- Low growth rate for oyster size
- Low salinity
- Low reproduction and recruitment
- Low historic spat set
- Low population growth potential
- Potential mortality from freshets
- Past oyster history indicates low oyster abundance
- MDE restricted area of current fecal coliform and bacteria levels
- Potential for significant financial investment to restore



# Manokin River Sanctuary

## Comments provided by the commissioners:

### Pros

- Potential to increase regional populations and bars in public fishery adjacent to sanctuary
- Not located in middle eastern shore near three current restoration partnership sanctuaries
- Different salinity regime than near three current restoration partnership sanctuaries
- Ample acres suitable for restoration; “tractable yet meaningful” restoration acreage
- Enforceable
- Low historic disease mortality
- Relatively high oyster density
- Relatively high historic spat set
- Increase in biomass and abundance since becoming a sanctuary in 2010
- Favorable water quality conditions; good dissolved oxygen
- Potential to develop disease resistance
- Relatively easy to restore; potential for limited amounts of substrate and seed
- Potential for limited investment needed to restore

### Cons

- To close to the three current restoration partnership sanctuaries
- Possibility of high mortality from MSX and Dermo
- Desired to become a seed area for public fishery
- Economically depressed area
- Will be met with strong political and local opposition



# Nanticoke River Sanctuary

Comments provided by the commissioners:

## Pros

- Not located in middle eastern shore near three current restoration partnership sanctuaries
- Substantial acres of suitable habitat to restore; “tractable yet meaningful” restoration acreage
- Potential to increase regional populations and bars in public fishery adjacent to sanctuary
- NEPA approved
- Enforceable
- Relative high reproduction potential
- Relative high historic spat set
- Increase in biomass and abundance since becoming a sanctuary in 2010
- Favorable water quality conditions; good dissolved oxygen and depth

## Cons

- Too close to the three current restoration partnership sanctuaries
- Located on western shore
- Has lots of aquaculture leases
- Possibility of high mortality from MSX and Dermo
- Potential negative impact to public fishery revenue if whole river is expanded to become a sanctuary





# Severn River Sanctuary

## Comments provided by the commissioners:

### Pros

- Not located in middle eastern shore near three current restoration partnership sanctuaries
- Located on western shore
- Test area to see if sanctuaries work
- NEPA approved
- Enforceable
- Public support by riverkeeper, MGO, and local citizens
- Easy to monitor oyster population
- Nutrient filtration needed and potential to improve water quality
- Already had some planting by MGO and other organizations
- Bottom already has some substrate prepared for planting oysters

### Cons

- Low growth rate for oyster size
- Low salinity
- Low reproduction and recruitment
- Low historic spat set
- Low dissolved oxygen; degraded water quality
- Low population growth potential
- MDE concerns of current fecal coliform and bacteria levels
- Not easy to restore; will take a lot of substrate and seed
- Has already had limited restoration activities
- Potential for significant financial investment to restore



# South River Sanctuary

Comments provided by the commissioners:

## Pros

- Not located in middle eastern shore near three current restoration partnership sanctuaries
- Located on western shore
- Test area to see if sanctuaries work
- Area needs restoration
- Public support by riverkeeper, MGO, and local citizens
- Easy to monitor oyster population

## Cons

- Little historic oyster bottom and low amount of hard bottom to restore
- Low current oyster density
- Low growth rate for oyster size
- Low salinity
- Low reproduction and recruitment
- Low historic spat set
- Potential mortality from freshets
- Low dissolved oxygen; degraded water quality
- Low population growth potential
- Not easy to restore; will take a lot of substrate and seed
- Has already had limited restoration activities
- Potential for significant financial investment to restore



# St. Mary's River Sanctuary

## Comments provided by the commissioners:

### Pros

- Not located in middle eastern shore near three current restoration partnership sanctuaries
- Located on western shore
- Ample acres suitable for restoration; “tractable yet meaningful” restoration acreage
- Potential to increase regional populations and bars in public fishery adjacent to sanctuary
- Different salinity regime than near three current restoration partnership sanctuaries
- Public support from citizens, multiple organizations, and local government; investment towards restoration currently ongoing by these organizations
- Enforceable
- High oyster density
- High historic spat set
- Low historic disease mortality
- Increase in biomass and abundance since becoming a sanctuary in 2010
- Favorable water quality conditions
- Potential to develop disease resistance
- Potential for limited investment needed to restore

### Cons

- Possibility of high mortality from MSX and Dermo
- Already receiving community led restoration
- Desired to be a seed area for public fishery
- Potential negative impact to public fishery revenue if whole river is expanded to become a sanctuary

**Talking Points/Questions and Answers re. NMFS Proposed Designation of Critical Habitat for Atlantic Sturgeon**

***Prepared by NMFS GAR PRD for the NOAA Chesapeake Bay Program, May 2017***

- NMFS published proposed rules for the designation of critical habitat for five Distinct Population Segments of Atlantic sturgeon in June 2016 (see 81 FR 35701 and 81 FR 36078). We are working to finalize these designations consistent with a consent decree requiring publication in the *Federal Register* by June 3, 2017.
- All of the areas proposed for critical habitat are in rivers; we are not proposing to designate critical habitat in the mainstem Chesapeake Bay or marine waters.
- Atlantic sturgeon critical habitat was proposed for some tributaries of the Chesapeake Bay, including portions of the Susquehanna and Potomac rivers in Maryland and portions of the James, York (including Mattaponi and Pamunkey) and Rappahannock rivers in Virginia. The proposed designation does not include any tributaries of these rivers.
- We held a 105-day public comment period that included a public information session in Annapolis. We notified the heads of state wildlife or fisheries agencies about the proposed rule via phone call and letter. Information was also provided to the MidAtlantic Fisheries Management Council and the Atlantic States Marine Fisheries Commission.
- The critical habitat designation does not result in refuges or preserves. We do not prohibit in-water work or other activities that occur in designated critical habitat. Once critical habitat is designated, federal agencies must consult with us for any federally-authorized, implemented, or funded activity that may affect critical habitat. Consultation is not required when a private citizen will engage in an activity on private land that does not require any authorization from a Federal agency, and does not include any Federal funds to carry out the activity.
- We know that Maryland and Virginia fishermen and aquaculturists may have concerns about the designation. At this time, we do not anticipate new restrictions on fishing activities including the harvest of wild oysters or ongoing oyster restoration activities. Most aquaculture activities in the states have already been considered under section 7 of the ESA where we assessed effects on Atlantic sturgeon and their habitat. We will work with the Army Corps of Engineers to efficiently carry out any additional new analysis. We do not anticipate disruption of ongoing oyster aquaculture activities.

**Q:** *Will the designation of critical habitat in the Chesapeake Bay affect the commercial harvesting of oysters, including the public fisheries in Maryland and Virginia?*

**A:** We do not anticipate that the critical habitat designation will result in impacts to the commercial harvesting of oysters because these commercial fisheries are not federally authorized (e.g., permitted) or funded; as such, there is no requirement for section 7 consultation with us even if commercial harvest occurs in areas that we have designated as critical habitat.

**Q:** *Will the designation of critical habitat in the Chesapeake Bay affect oyster aquaculture operations in Maryland and Virginia?*

**A:** Aquaculture activities in Chesapeake Bay require a permit from the Army Corps of Engineers. Section 7 consultation may be required before a permit can be issued. However, most aquaculture activities in the Chesapeake Bay area have already been considered under section 7 of the ESA where we assessed effects on species listed under the ESA (i.e., Atlantic sturgeon, shortnose sturgeon, sea turtles) and their habitat. NMFS will work with the Army Corps of Engineers to efficiently carry out any additional new analysis. We do not anticipate disruption of ongoing oyster aquaculture activities.

**Q:** *Will the designation of critical habitat in the Chesapeake Bay affect oyster restoration in Maryland and Virginia?*

**A:** We do not anticipate that the critical habitat designation will result in the disruption of oyster restoration. Projects that are authorized, funded or carried out by a Federal agency would need to undergo ESA section 7 consultation if that consultation had not already occurred. NMFS will work with the appropriate Federal agency to efficiently carry out any additional new analysis.

**For More Information:**

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For Maps, Copies of Presentations and Other Materials:  
<https://www.greateratlantic.fisheries.noaa.gov/protected/atlsturgeon/>