

Reenergizing Community Oyster Programs

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The Chesapeake Bay Foundation
Merrill Center
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**Proposals to Enhance
The Political, Environmental,
And Financial Benefits
Of Community-Based Oyster Restoration**

Presented by:

Len Zuza

Kelly Cox

Jon Farrington



SMOCS

Presenter:

**Len Zuza, OAC Commissioner
and President of**

**THE SOUTHERN MARYLAND
OYSTER CULTIVATION SOCIETY**

**Presenter: Kelly Cox, OAC Commissioner
and Executive Director of**

**THE PHILLIPS WHARF
ENVIRONMENTAL CENTER**

Presenter: Jon Farrington, Proprietor of

Johnny Oyster Seed

General Assembly Addressed Need for Oyster Restoration

2007 – HB 133 established the Oyster Advisory Commission to:

- Restore large populations of oysters in Maryland.
- Maximize the ecological benefits of native oysters.
- Assure an economically viable oyster industry.
- Improve enforcement of closed areas.

Governor Created Broad Restoration Programs

2008 – Created Marylanders Grow Oysters Program.

2010 – Announced broad oyster restoration policy that followed major Oyster Advisory Commission recommendations.

Governor Adopted OAC Recommendations

- Restore large interconnected oyster populations and expand sanctuaries.
- Create new system of commercial leasing.
- Create Demonstration Leases for non-commercial restoration.
- Provide funding and training for new aquaculture operations.
- Retain and enhance significant harvest areas for traditional watermen.

Governor, OAC & DNR Identified Community Roles

- **Increase and sustain community support and awareness.** (OAC Interim Report)
- **Contribute to a broader framework for restoration.** (OAC Final Report)
- **Increase citizen involvement.** (O'Malley Policy)
- **Create Demonstration Leases** (DNR Open House)

Major Restoration Stalled by Lack of Funding and Shells

2009 OAC Report:

“It is estimated that between \$41 to \$87 million annually will be needed to support the following components of Maryland’s oyster restoration program during the first 10 years.”

- Increased hatchery production (**\$20 - \$40 million annually**)
- Increased oyster bar habitat rehabilitation (**\$14 - \$40 million annually**)
- Oyster population monitoring and stock assessment (**\$2 million annually**)
- Oyster bar habitat mapping and characterization survey (**\$3 million for 5 years**)
- Oyster research program (**\$2 million annually**)

Bay Restoration Presents Daunting Goals

| Baseline Calculations | Chesapeake Bay |
|---|-----------------------|
| Total Water Volume (In Gallons) | 16,000,000,000,000 |
| Number of Live Oysters Needed to Filter 1X a Week (Water Volume/55 gallons/7) | 41,558,441,558 |
| Acres Needed (For Density of 400 oysters/sq yard) | 21,466 |

Lack of Funds/Shells Severely Limits New OAC Mission

Until critical resources are available, there are few substantive topics the OAC can address in the near term.

What the OAC can accomplish now is strengthen community-based programs, building on the Marylanders Grow Oysters Program.

MGO Initiatives Limited to Adding New Tributaries

- While MGO has expanded to 31 tributaries, there has been little else done to:
 - “Increase and sustain public support”
 - “Contribute to a broader framework for restoration”
 - “Increase citizen involvement”
- **There have been no significant new initiatives to innovate or enhance program effectiveness.**

Misperceptions Discounted Value of Local Programs

- “Community programs are well intentioned, but inconsistent and poorly organized.”
- “Small-scale restoration is not cost effective.”
- “Citizen restoration = hobby.”

Communities Have Achieved Significant Results

Accomplishments of local groups since 2007:

- Planted tens of millions of oysters and spat.
- Generated more than \$175,000 for commercial aquaculture operations in southern Maryland.
- Hired local aquaculture proprietor for consulting services in setting up the remote setting.

Additional Accomplishments

- Encouraged other communities to launch oyster gardening programs.
- Collaborated with other communities to make programs more effective.
- Educated students and the public about the role of oysters in the environment .
- Helped organize political support for new oyster policy in 2010.

Restoration Achievable In Solomons Creeks

| Baseline Calculations | Chesapeake Bay | Solomons Harbor |
|---|-----------------------|------------------------|
| Total Water Volume (In Gallons) | 16,000,000,000,000 | 1,257,459,000 |
| Number of Live Oysters Needed to Filter 1X a Week (Water Volume/55 gallons/7) | 41,558,441,558 | 3,266,127 |
| Acres Needed (For Density of 400 oysters/sq yard) | 21,466 | 1.7 |

Win the Winnable

Baseline Calculations

| | Chesapeake Bay | Solomons Harbor |
|---|--------------------|-----------------|
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SMOCS Program in Solomons

| | | |
|--|--|-----------|
| Acerage Now Being Restored by SMOCS | | 2.3 |
| Total Oysters/Spat Planted before June 2012 | | 2,100,000 |
| Reef Density in June 2012 Survey (Oysters/sq yard) | | 180 |
| Oysters/Spat Planted after June 2012 | | 4,626,400 |
| Total Oysters/Spat Planted | | 6,726,400 |

DNR Can Make MGO A “Gateway Drug”

Many communities that started with the MGO were so inspired by the potential for doing much more to restore oysters that they expanded well beyond the parameters initially envisioned by MGO organizers (St. Mary’s River Watershed Association & SMOCS).

If other communities are informed of that potential, they may be inspired to do the same.

So Why Does the OAC Need To Do More?

- The OAC is the only forum where communities engaged in restoration can be heard as a group.
- Some of the first communities that joined MGO are starting to tire of it, but their interest can be reinvigorated with new opportunities.
- The size and scope of MGO programs can be significantly broadened with innovations that communities can share with other MGO groups.

Potentially High Returns For Low Cost

- **Political:** Generate more support for large restoration and aquaculture programs.
- **Financial:** Generate substantial non-tax funds for both restoration and aquaculture enterprises.
- **Environmental:**
 - Substantially increase number/size of oyster habitats.
 - Demonstrate that restoration can succeed.
 - Provide small test beds to study oyster restoration.

Citizens Can Build Political Support for Restoration

- Expand the political base for large-scale restoration by engaging more waterfront residents and businesses.
- Engage disparate stakeholders to work for a common goals.
- Develop the broader frame-work for oyster restoration envisioned in the OAC final report.

Communities can Generate Substantial Non-Tax Revenue

By purchasing spat, equipment and consulting services from local aquaculture operators, community groups can expand their programs and support local aquaculture...

or add substantially to the total funds available for oyster restoration – **without increasing demands for tax revenue.**

PWEC's Master Plan includes training in oyster aquaculture at its Tilghman Island facility.

Raise awareness of local businesses to buy oysters from local aquaculture operations.

Communities Can Improve Local Marine Environments

Restore additional reefs in medium and small tributaries.

- Plant oysters in areas where their ecological function has been absent for decades (Harness Creek).
- Collect and deposit shell substrate to restore bars in smaller tributaries (“Small Waters” Strategy).
- Be the eyes and ears of enforcement, to effectively protect restoration areas (Poacher Posses).
- Be the risk-takers for new restoration prototypes in marginal habitats without risking for tax-payer funds (oysters on rip rap).

Suggestions for Reinvigorating Citizen Restoration Programs

1. Include community restoration topics periodically for study and recommendations by the OAC.

- Provide clearer DNR definition of sanctuaries and harvesting/restoration practices allowed in sanctuaries.
- Encourage DNR Coordination with MGO participants of decisions affecting their programs **BEFORE** they are officially announced.
- Improve coordination between scientists and MGO participants to deepen knowledge of what works and what does not and establish BMPs for local reef restoration and maintenance.

OAC Suggestions

(continued)

2. Finalize demonstration lease regulations and simplify the guidelines for submitting applications.

- Failure to issue regulations for Demonstration Leases is causing program cancellations and demoralizing program participants.
- Legislation authorizing Demonstration Leases was enacted by the General Assembly and signed by Governor O'Malley.
- No credible explanation for delays by DNR.

OAC Suggestions

(continued)

3. Establish an OAC committee that would guide the creation of a community-run MGO organization under DNR policy guidance to:

- Develop and promote BMPs for MGO groups to restore and maintain local reefs.
- Encourage MGO groups to develop productive relationships with local aquaculture entrepreneurs so that both can grow more quickly.
- Develop and promote a Master Oyster Gardener program that would help reduce the administrative workload for DNR by creating a cadre of oyster gardeners trained to explain and teach best practices for oyster gardening.

Governor O'Malley's Goal

***Restore Oysters
Wherever Possible***