

*Science, Service, Stewardship*



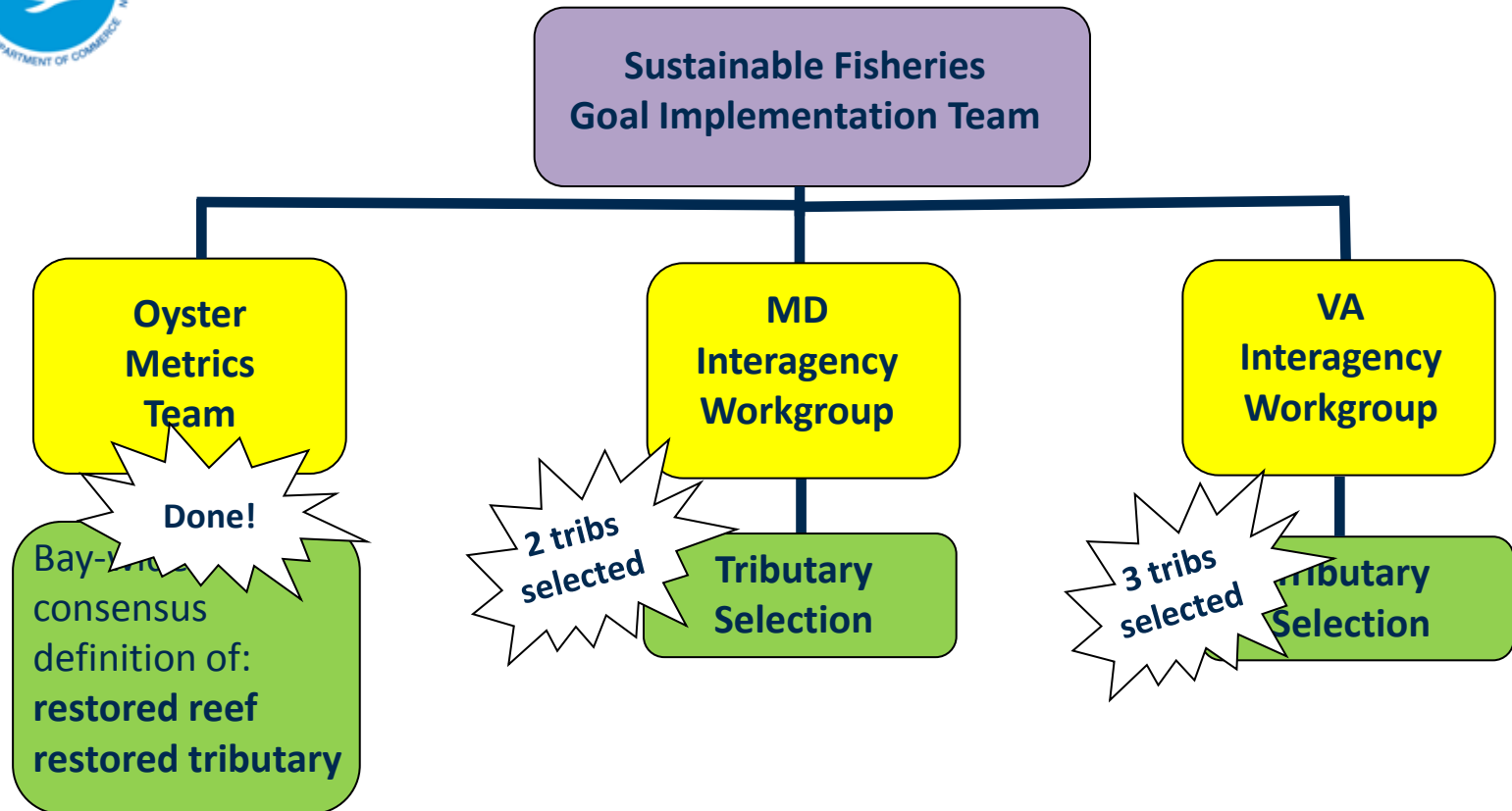
## **Progress Update: Executive Order oyster goal, Harris Creek focus**

*Stephanie Reynolds Westby*  
*[Stephanie.westby@noaa.gov](mailto:Stephanie.westby@noaa.gov)*

**NOAA  
FISHERIES  
SERVICE**



**Goal:**  
**Restore oyster populations in  
20 tributaries by 2025**



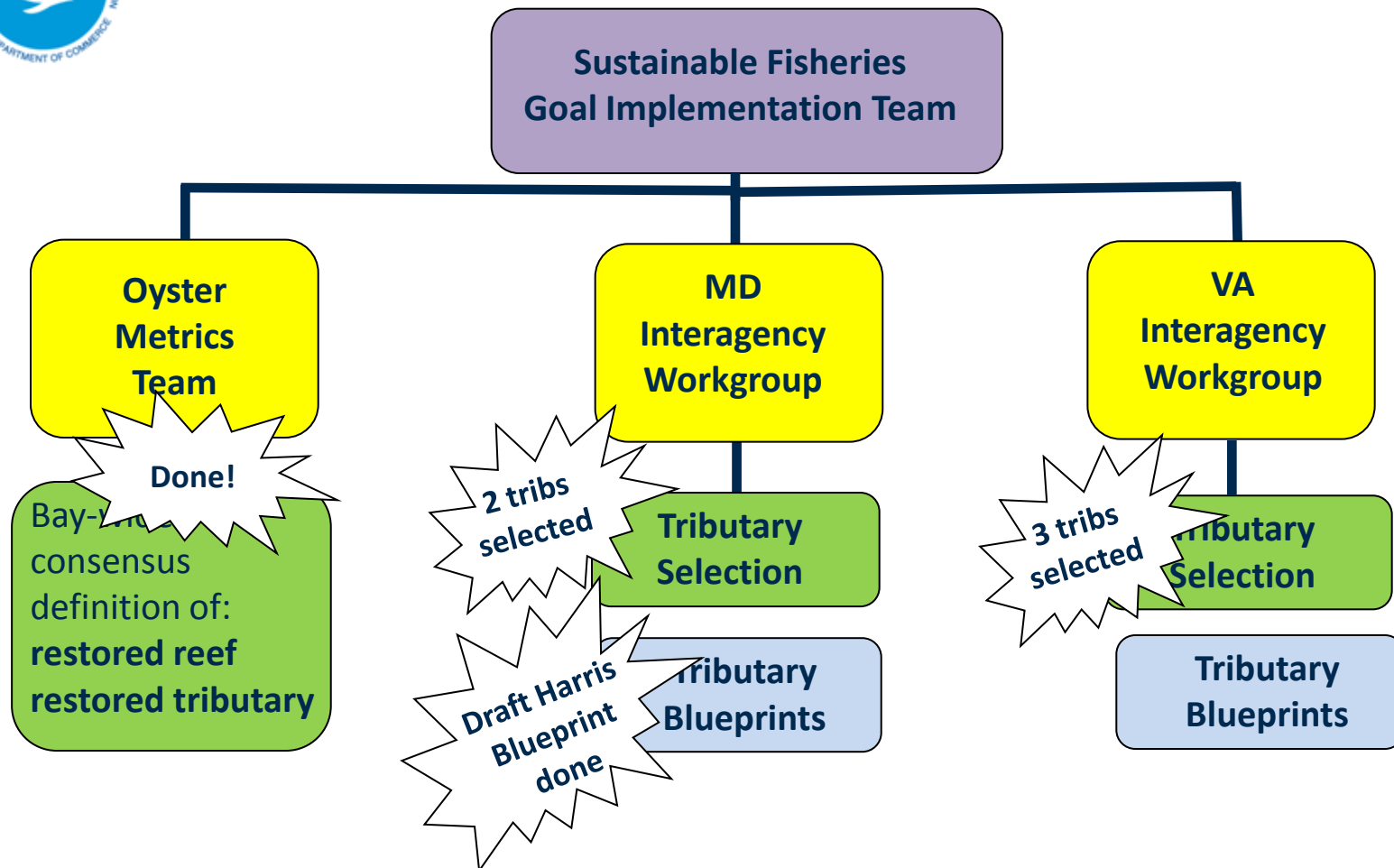


# Tributaries Selected for Targeted Oyster Restoration





**Goal:**  
**Restore oyster populations in  
20 tributaries by 2025**



# NOAA FISHERIES SERVICE



## Harris Blueprint Process

- Restorable bottom  
analysis: *where is the  
suitable bottom?*

### Harris Creek Oyster Sanctuary 2011 Broad Scale Acoustic Bottom Classification MD Geological Survey NOAA Chesapeake Bay Office Depths 1.50-6.09m

#### Restorable Bottom

- Artificial oyster reef
- Aggregate patch reef
- Fringe reef
- Patch reef
- Sand and scattered oyster shell
- Sand
- Muddy\_sand

#### Non-restorable Bottom

- Mud and scattered oyster shell
- Mud
- Sandy mud
- Unclassified
- Sanctuary Boundary

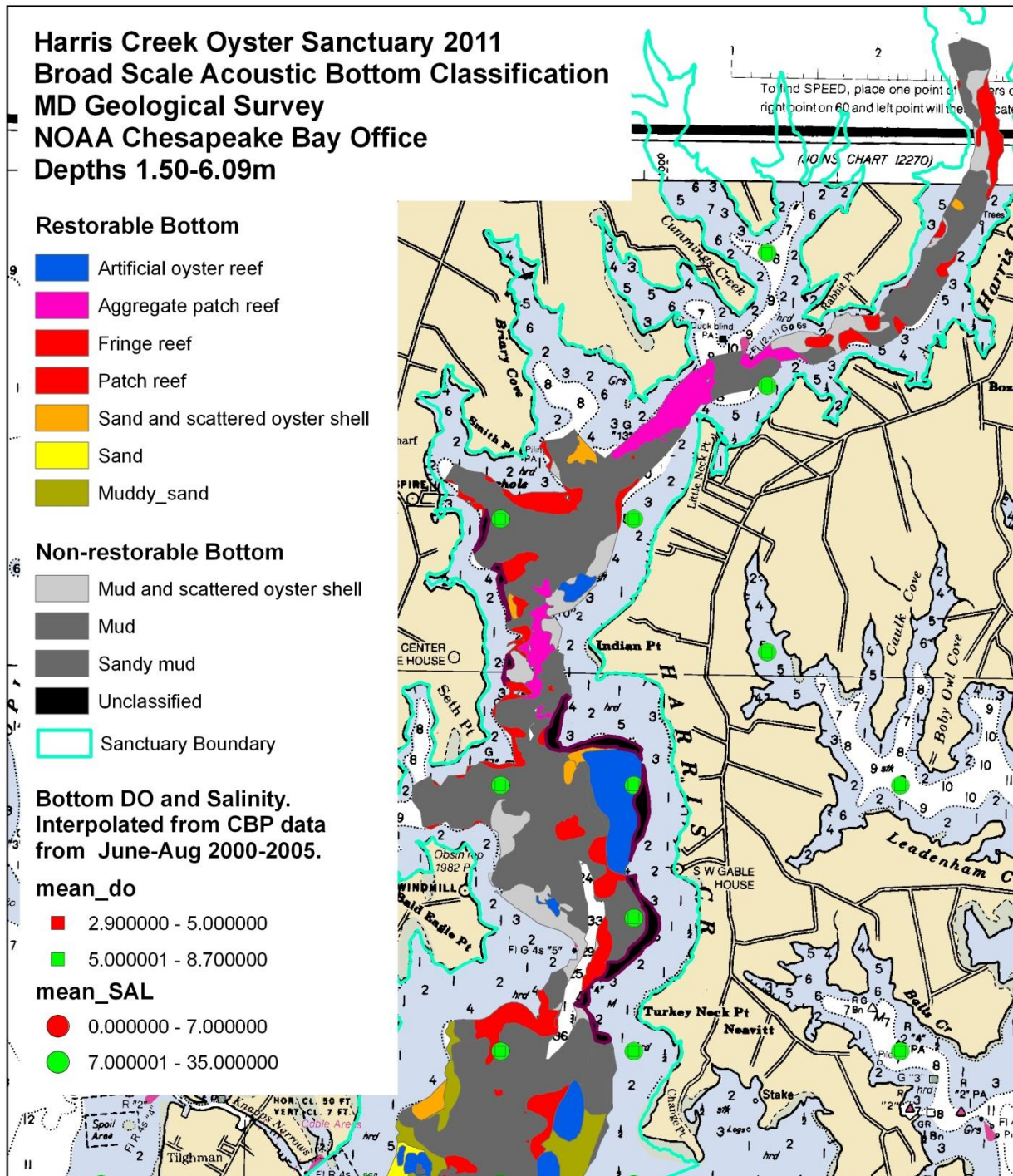
Bottom DO and Salinity.  
Interpolated from CBP data  
from June-Aug 2000-2005.

#### mean\_do

- 2.900000 - 5.000000
- 5.000001 - 8.700000

#### mean\_SAL

- 0.000000 - 7.000000
- 7.000001 - 35.000000

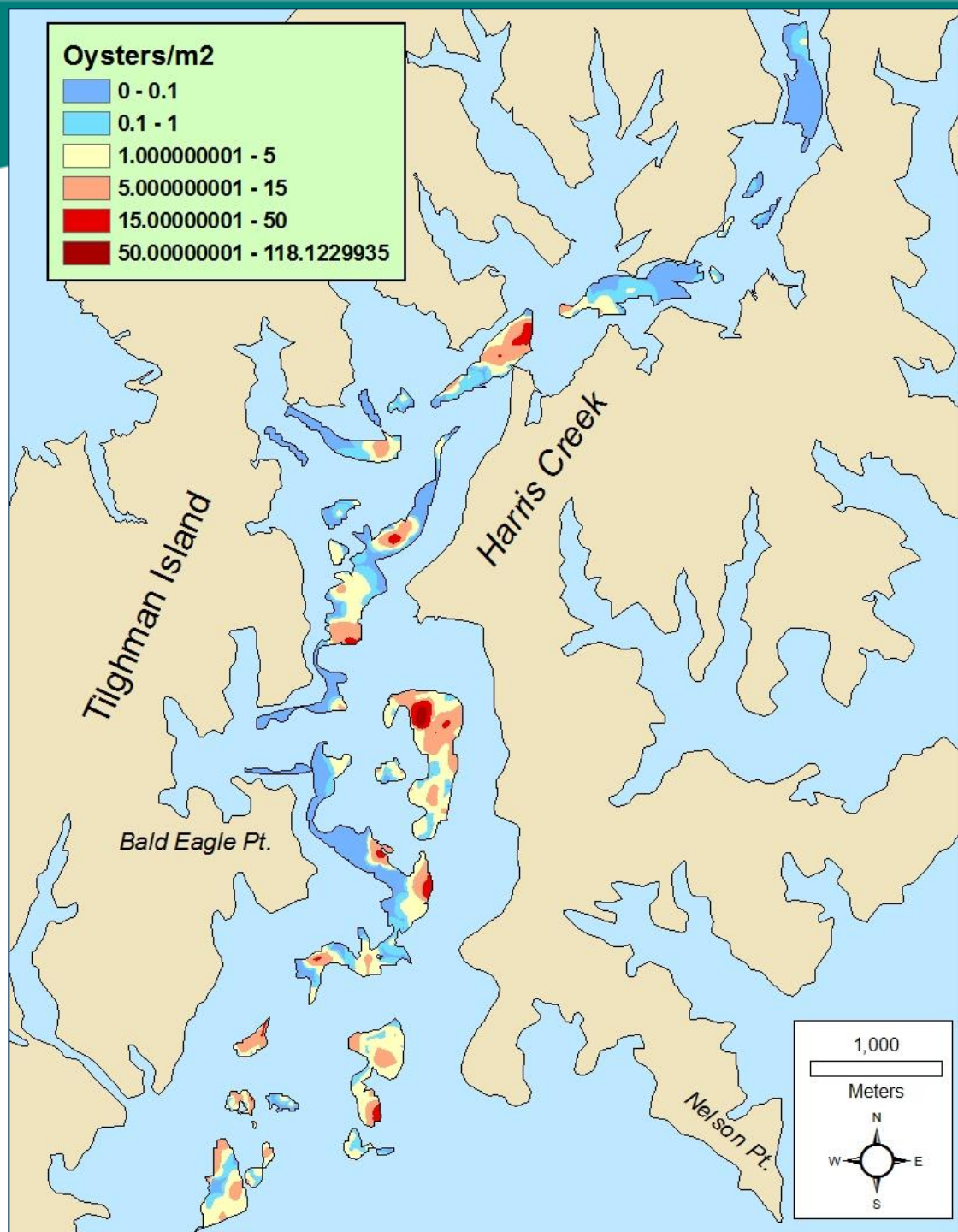


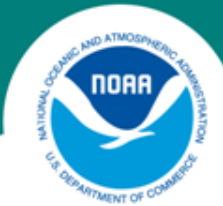




## Harris Blueprint Process

- Restorable bottom analysis:  
where is to suitable
- **Oyster population surveys:**  
*where are the existing  
oysters, and at what  
density?*





## Harris Blueprint Process

- Restorable bottom analysis:  
where is to suitable
- Oyster population surveys:  
*where are the existing  
oysters, and at what  
density?*
- **Open House:** *what does the  
public think of this?*





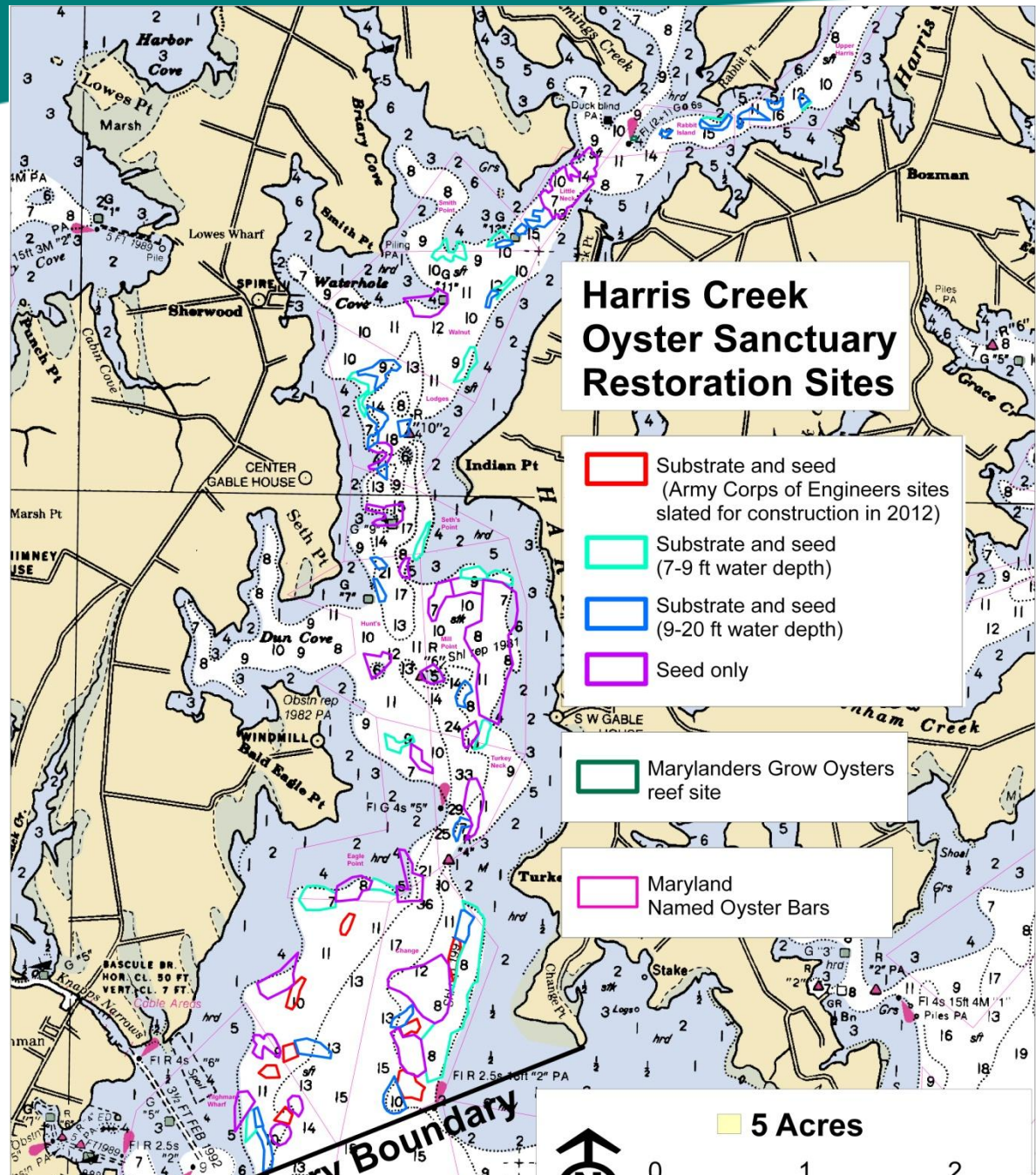
## Harris Blueprint Process

- Restorable bottom analysis: where is to suitable
- Oyster population surveys: *where are the existing oysters, and at what density?*
- *Open House: what does the public think of this?*
- **Assumptions & cost estimates:**  
*ex: oyster mortality rate, natural spat set, cost per acre for substrate, cost per million planted seed, etc.*



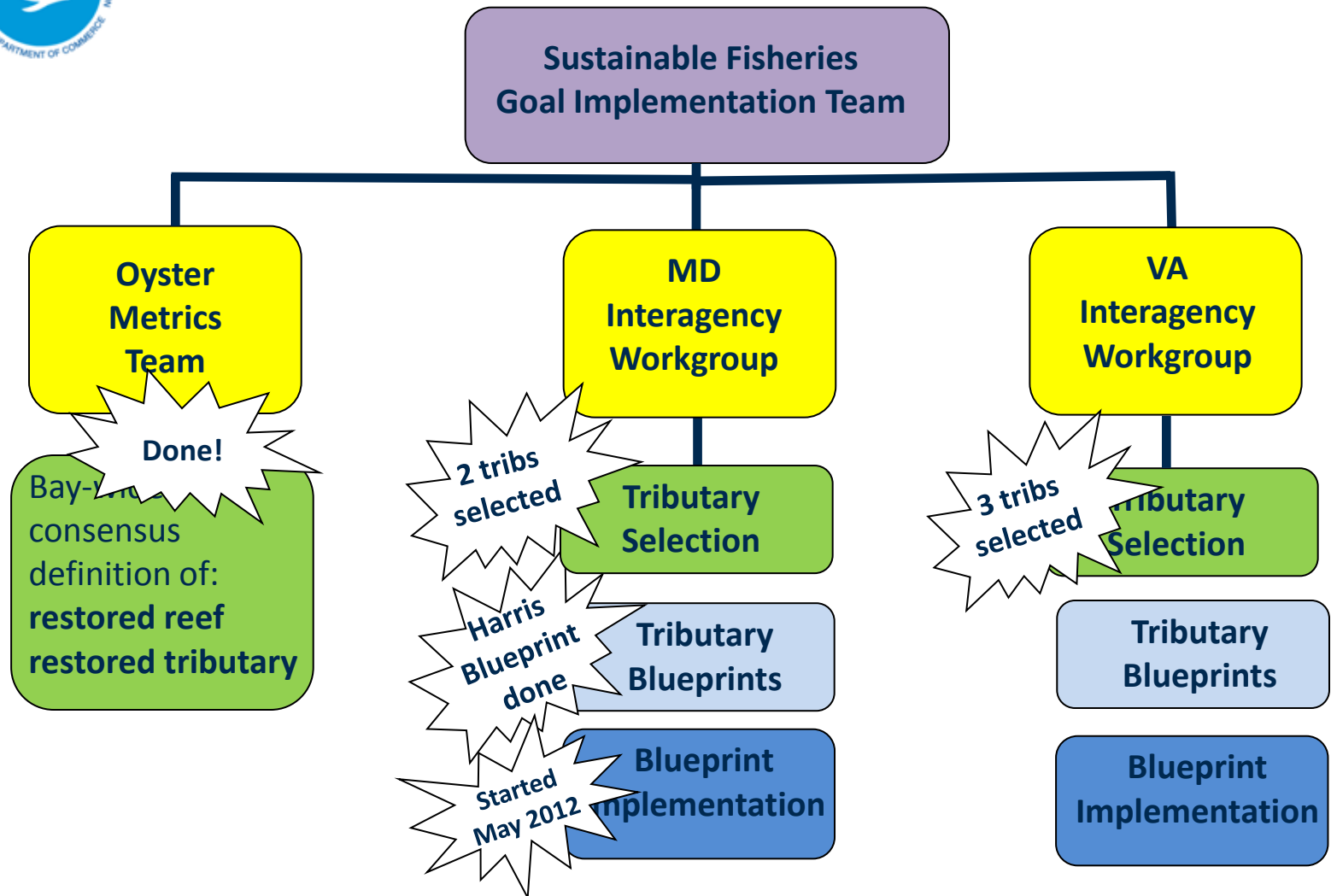


- **Acres targeted: 360**
- **Seed required: 2 billion**
- **Substrate needed:  
250,000 cubic yards**
- **Cost: \$27 million**





**Goal:**  
**Restore oyster populations in  
20 tributaries by 2025**





## **Roles of NOAA, Army Corps, DNR**

### **NOAA:**

- Benthic mapping for site selection & post-construction monitoring; restorable bottom analysis
- Funding to DNR for production & planting of seed oysters
- Funded population surveys on Harris & Little Choptank

### **USACE, Baltimore District:**

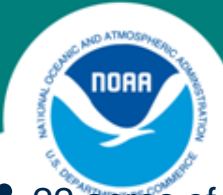
- Reef construction, etc. (presentation to follow)

### **DNR:**

- Funding for production & planting of seed oysters
- Manages bay bottom
- Holds permits
- Benthic mapping (MGS)
- Reef construction (\$7 m from O'Malley for Harris)
- Population surveys on other sanctuaries
- Monitoring

### **Collective:**

- Planning, coordination, collaboration, trib selection



## **Harris Blueprint Progress**

- 22 acres of reefs were constructed by USACE Baltimore this summer.
- As of yesterday, NOAA completed post-construction survey work and analysis on these 22 acres of reefs.
- With FY11 NOAA funding to MD DNR, Over \$00 million seed oysters have been produced and planted on Harris this summer (NOAA, ORP and DNR funding).
- NOAA is funding the production and planting of another 300 million oyster seed to be planted on 60 acres in Harris Creek in summer 2013 (FY12 funding).
- USACE Baltimore plans to construct approximately another 25-30 acres of reefs in summer 2013.
- MD's Governor O'Malley has put approximately \$7 million into the state budget for restoration in Harris Creek.
- NFWF has expressed interest in contributing funding for implementation of oyster restoration in Harris Creek.