

# Coastal GEMS & Social Marketing



Laura McKay  
Program Manager



**Virginia Coastal Zone**  
MANAGEMENT PROGRAM



# Executive Order

Signed by each new Governor to direct state agencies to attain

## 10 Goals

- Coastal Resource Protection
- Coastal Resource Sustainable Use
- Coastal Management Coordination
  - #10 To promote informed decision-making by maximizing availability of up-to-date information, technical advice, and scientific data to all.*



# Enhancement Grants (Section 309)

New, enforceable policies in nine areas:

- wetlands
- public access
- coastal hazards
- cumulative and secondary impacts
- energy & gov. facility siting
- marine debris
- ocean resources
- special area management plans
- aquaculture



# CSI: \$400k FY 2006-2010 Intergovernmental Decision-making





Search DEQ [Go]

Virginia DEQ Home > Virginia Coastal Zone Management Program

- Main Menu
- Home
- Description & boundary
- Staff & policy team
- Laws & policies
- Goals & accomplishments
- Funds, initiatives, and projects
- Grantee guidance and information
- Coastal GEMS - Geospatial data
- Publications & presentations
- Links & online resources
- Help your coast



Protecting, restoring, and strengthening our coastal ecosystems and economy

- Executive Order
- Coastal zone map
- Projects
- Public Notices
- CZM contacts



### New Five Year Strategy

Virginia CZM is developing strategies to address high priority needs in areas such as integrated coastal planning, use conflict resolution and managing shorelines to better prepare for coastal hazards, improve habitat and water quality...

[Coastal Needs Assessment and Strategies](#) (Focus is on [Living Shorelines](#), [Coastal GEMS](#), [Aquaculture Management](#), [Special Area Management Plans](#))



### Virginia's Seaside

Virginia CZM is restoring and protecting a global treasure. Shorebirds, [seagrasses](#) and shellfish are already increasing as a result, as are ecotourism and aquaculture opportunities...



### Land Acquisition

Virginia CZM acquires and protects sensitive coastal habitat. New federal funding may allow even more area to be protected...



### Local Coordination

Virginia CZM partners with eight coastal



Address

Go!

Example Address Searches

Click on a Layer Name to View the Factsheet

**Water Features**

- Shellfish Aquaculture Permit Sites
  - Hard Clam
  - Soft Clam
  - Oyster
  - Crab Shed
- Anadromous Fish Streams
- Baylor Grounds (public oyster grounds)
- Fisheries Management Areas
- Impediments to Fish Movement (Dams)
- INSTAR Locations
- Oyster Gardening Sites
- Private Oyster Leases
- Seaside SAV Planting Sites
- State-constructed Oyster Reefs
- Submerged Aquatic Vegetation (SAV)

Refresh Layers

Developed By:

Map

Drag the map in the direction you would like to pan.



Zoom In  
Zoom Out

Map/Layer Fact Sheet Tabs

Search By Address or Locality

Example Address Search

Contact Us

Data Layer Legend

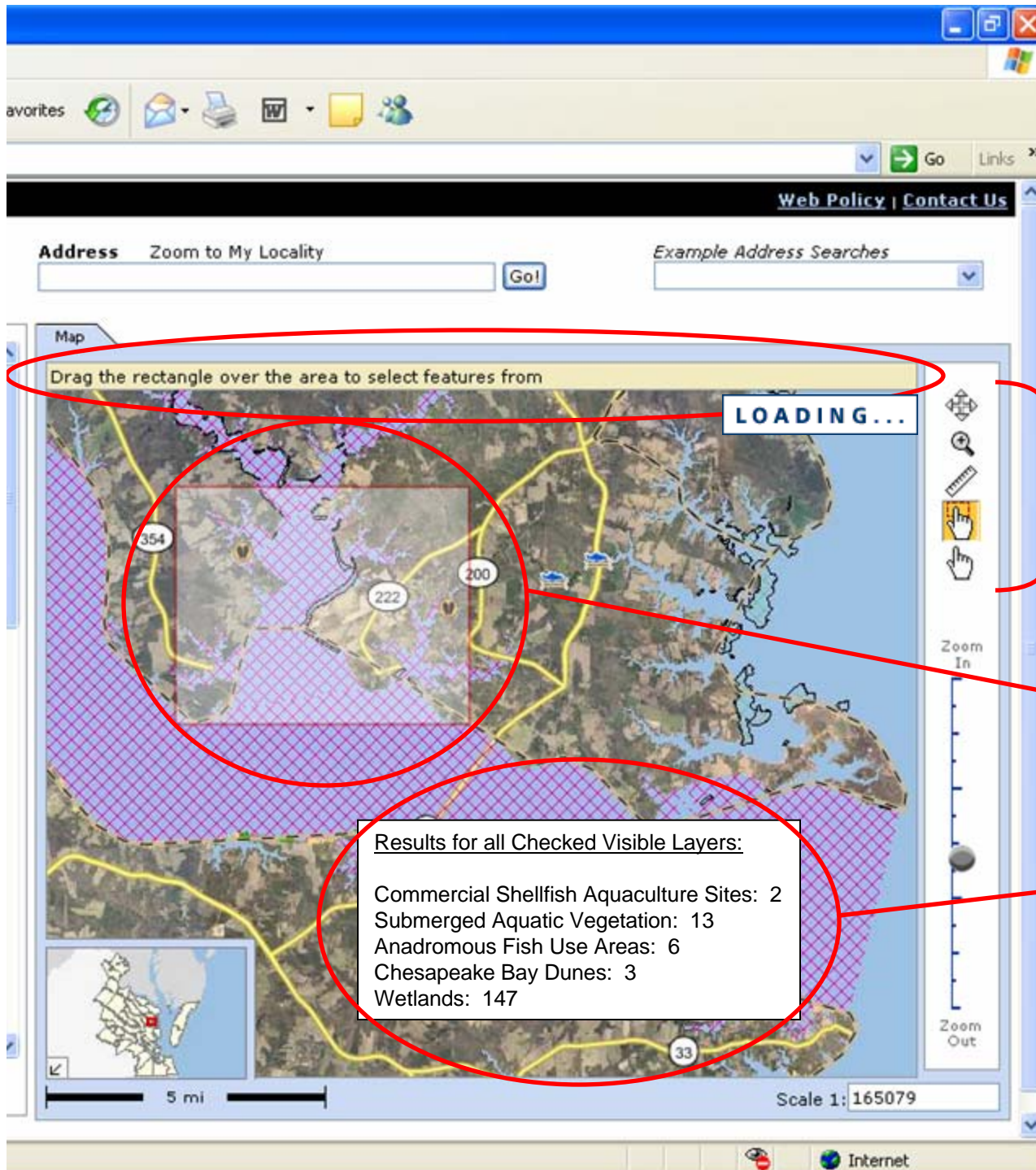
The screenshot shows a web browser window titled "GEMS - Microsoft Internet Explorer". The page header includes "Commonwealth of Virginia | Governor" and "Virginia Coastal Zone MANAGEMENT PROGRAM". The main content area is divided into several sections:

- Search Section:** Features a search bar with the text "Address Zoom to My Locality" and a "Go!" button. To the right, there is a link for "Example Address Searches".
- Map Section:** A map titled "Map" with a "LOADING..." overlay. Below the map is a scale bar for "5 mi" and a scale of "1:172755". An inset map in the bottom left corner shows the location of the main map area within the state of Virginia.
- Legend Section:** A "Data Layer Legend" on the left side, organized into three categories:
  - Water Features:** Includes "Shellfish Aquaculture Permit Sites", "Anadromous Fish Streams", "Baylor Grounds (public oyster grounds)", "Fisheries Management Areas", "Impediments to Fish Movement (Dams)", "INSTAR Locations", "Oyster Gardening Sites", "Private Oyster Leases", "Seaside SAV Planting Sites", "State-constructed Oyster Reefs", "Submerged Aquatic Vegetation (SAV)", and "Waters with Threatened & Endangered Species".
  - Shoreline Features:** Includes "Beaches Above High Water", "Chesapeake Bay Dunes", and "Wetlands".
  - Land Features:** This section is partially visible.
- Navigation and Tools:** A "Refresh Layers" button is located below the legend. A "Tool: SelectByRect" is visible at the bottom left of the browser window.

Refresh Layers Button

Hide/Show Overview





### Mapping Tools:

- Pan
- Zoom In (by rectangle)
- Measure
- Select By Rectangle
- Select By Point

### Select By Point or Rectangle:

Click on a location (Point) or hold down the left click, drag over an area, and release (Rectangle) to select features you wish to know more about.

A **Results Table** will appear on the screen showing the number of features for each activated (black and checked) data layer in the legend.

Address

Click on a Layer Name to View the Factsheet

- Important Bird Areas
- Migratory Songbird Stopover Habitat
  - Critical Habitat
  - Important Habitat
- Recreational Features**
  - Birding & Wildlife Trail Loops
    - Loops
    - Sites
  - Scenic Rivers
  - Seaside Eastern Shore Water Trail
  - State Boat Ramps
- Conservation Planning Tools**
  - Clam Aquaculture Suitability Model
    - Not Assessed
    - Optimal
    - Suitable
    - Unsuitable
  - Marina Siting Suitability
  - Seaside Invasive Reed (Phragmites)



Developed By:  
Virginia Commonwealth University  
Center for Environmental Studies

Map  Layer Factsheet

Click on a feature to select

Scale 1: 91893


marks ▾ 247 blocked ABC Check ▾ AutoLink ▾ AutoFill ▾ Send to ▾ chesapeake >> Sett

Address  Go! Example Address Searches

Map Layer Factsheet

### Baylor Grounds (public oyster grounds)

In 1894 a massive two-year survey was conducted throughout State tidal waters to locate and map the naturally productive oyster beds, rocks, and shoals. Known as the "Baylor Survey," these areas are reserved for public shellfish harvesting and cannot be leased or used for other purposes. The Baylor Survey is still in use, and is shown on current oyster planting ground maps.



**Status:** This data layer is current as of 2001. Updates are irregular.

**For more information, please contact:**  
Marcia Berman

To access this data layer/tool directly, please visit  
<http://rmapnt52.wetlan.vims.edu/blueinfra/viewer.htm>

**Why should we care?**

Ecological Value: Public shellfish grounds, particularly oyster grounds, used to provide ecological services such as filtering coastal waters of algae and fine sediment, helping to reduce shoreline erosion by breaking up wave energy before it hit the shore and providing food and habitat for other sea life. Unfortunately the 3-dimensional oyster reefs of the past and now even the 2-dimensional oyster "beds" have been severely reduced due to diseases, and over 100 years of heavy harvesting. Commercial Value: Oysters still fetch a high price in the market and are prized items on restaurant menus. In 1973 the annual oyster harvest in Virginia was about 4.9 million pounds In 2004 the total harvest was only 23,800 pounds. Social Value: Oysters are still a part of Virginia's heritage and the independent, hard-working lifestyle of the waterman is often romanticized. The oyster continues to be an important part of our cherished holiday meals and local festivals.

**Links to find more information:**  
[General Oyster Info](#)  
[Oyster Landings Data](#)  
[Urbanna Oyster Festival](#)

Internet

PM GEM... Virginia Coastal Zone ... Blue Infrastructure - ... 5:4

## Layer Information:

**Brief description of the data layer**

**Status:** When the data layer was created or last updated

**Direct link to downloadable data or contributor's Internet mapping application.**

## *Contact Information*

## *Why should we care?*

Ecological, social, and economic values of the resource.

***How is this resource managed?*** at local, state, and federal levels.

***Why & how was this GIS data created?*** *Links to CZM grants*

## *Future Directions*

## *Frequently Asked Questions*

# Coastal Nonpoint Grant: Social Marketing

FY 2005 Task 82 \$110,000 + Match = \$220,000


Chesapeake Club: Get in touch with your inner Chesapeake - Microsoft Internet Explorer

File Edit View Favorites Tools Help




Address <http://www.chesapeakeclub.org/index.htm>

Google [chesapeake club](#) Go

Bookmarks 247 blocked Check AutoLink AutoFill Send to chesapeake Settings

 CHESAPEAKE CLUB™

Get in touch with your inner Chesapeake

|  |   |  |   |
|--|---|--|---|
| <b>HOME</b><br>Entertaining<br>Homefront<br>Yard Care<br>Lawn Services                       |                                 |                                   |   |
| <b>FOOD</b><br>Recipes<br>Restaurants  | <b>HOME</b><br>ENTERTAINING ←<br>How to throw the perfect crab feast, Chesapeake style.                           | <b>FOOD</b><br>RECIPES ←<br>Taste the Chesapeake with the region's best recipes and cookbooks.                       | <b>LIFE</b><br>DAY TRIPS ←<br>Take a day trip to the Bay from Washington and its suburbs.   |
| <b>LIFE</b><br>Day Trips<br>Romantic Spots   | <b>HOMEFRONT</b> ←<br>Create the Chesapeake homestead – a place in touch with the neighborhood and the watershed. | <b>RESTAURANTS</b> ←<br>Find restaurants & bars that have joined the Chesapeake Club to protect the food they serve. | <b>ROMANTIC SPOTS</b> ←<br>Romantic getaways not too far from home, where you and a special someone can connect with your inner Chesapeake. |
| <b>Chesapeake Bay</b><br>The Bay<br>The Watershed<br>Our Work<br><a href="#">See the Ads</a> | <b>YARD CARE</b> ←  |  |   |

*Regulatory*

Science

*Voluntary*

Policy

Education

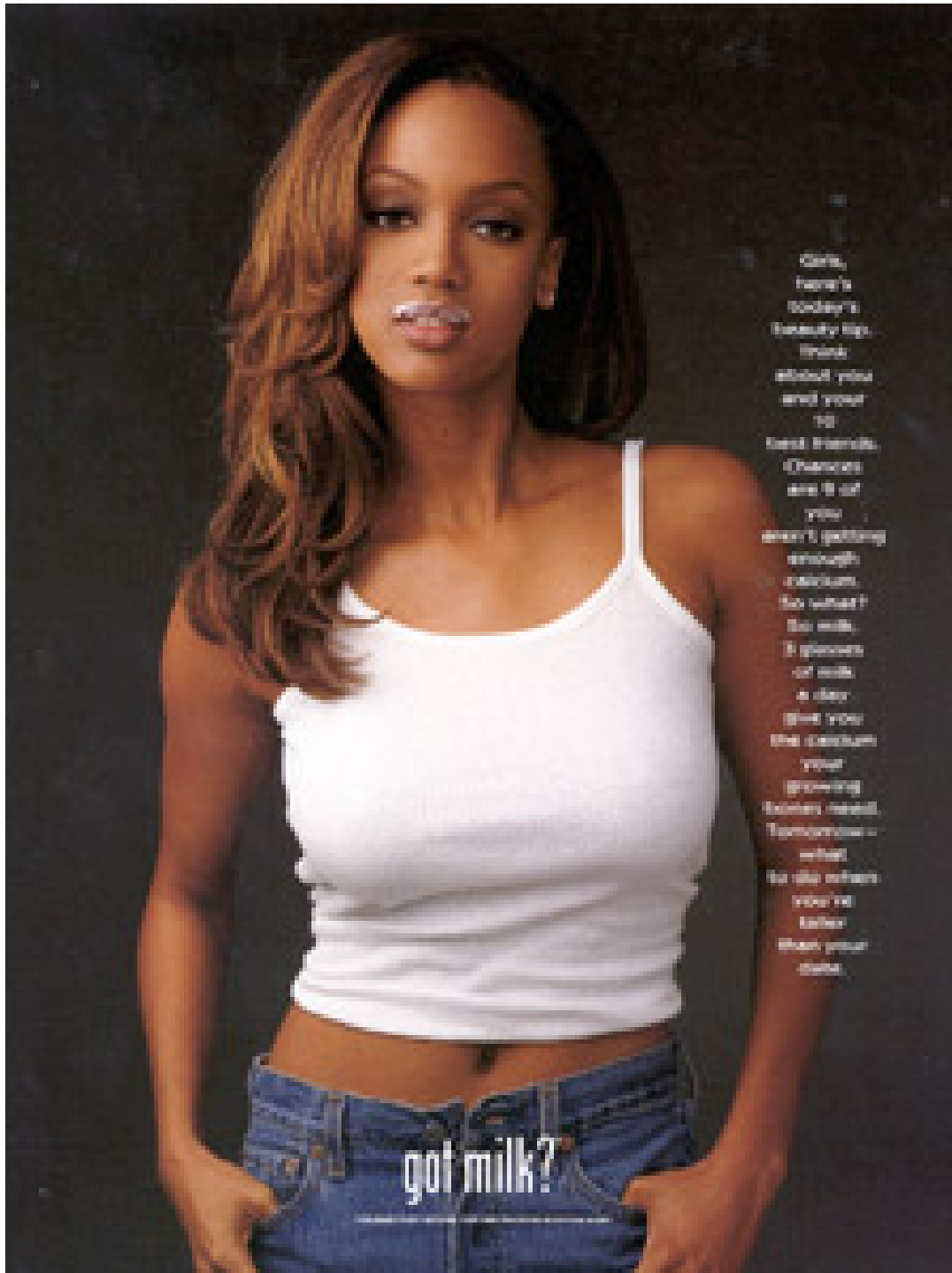


Enforcement

*Behavior Change*



**\*\*Conservation\*\***



Girls,  
here's  
today's  
beauty tip.  
They  
asked you  
and your  
to  
best friends.  
(Chances  
are if of  
you  
aren't getting  
enough  
calcium,  
so what?  
So milk.  
3 glasses  
of milk  
a day  
gives you  
the calcium  
your  
growing  
bones need.  
Tomorrow -  
what  
to do when  
you're  
taller  
than your  
date.

## Traditional Marketing

\$300 Million "Got Milk" Campaign resulted in flat consumption because current behavior and audience needs were not researched.



If Tyra can't  
change  
behavior, is  
there any hope  
for Omar of  
the Reef and  
Seacil the  
Seahorse?

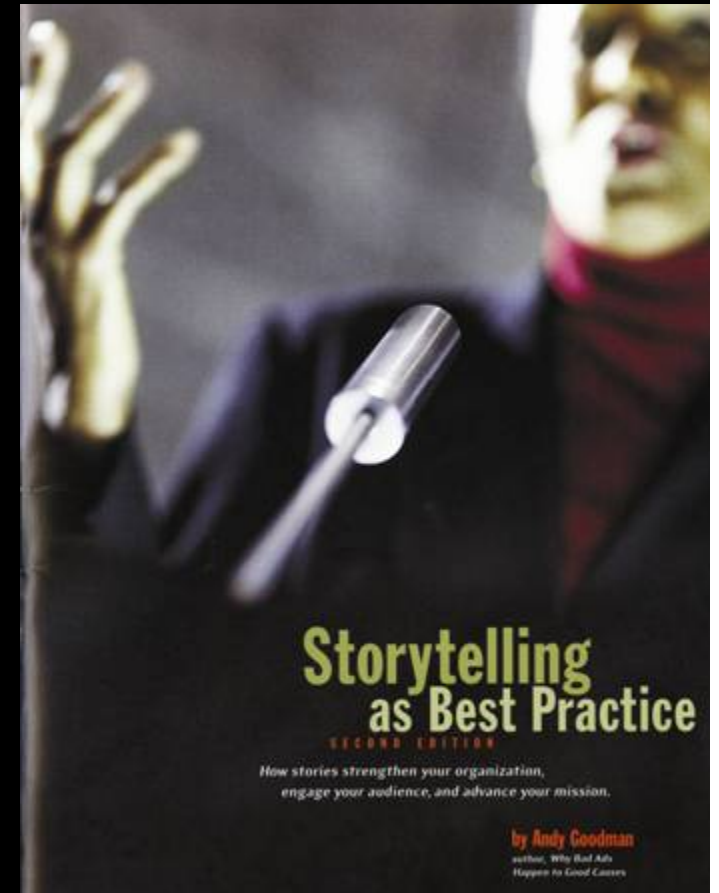
# 4 "P"s of Social Marketing

**Product** - desired outcome being "sold" (seafood)

**Price** - what target audience must do to get product  
(wait until fall to fertilize lawn)

**Place** - where product can best reach  
target audience (TV, Metro  
stations)

**Promotion** - how message is  
communicated to  
audience (tell a  
story, use humor)





# Social Marketing

**Problem:** Too much nitrogen causing eventual loss of seagrass, finfish, and shellfish

**Targeted Behavior Change:** Don't Fertilize lawn in the spring - wait until fall

**Why:** Protect beloved Chesapeake Bay seafood



**NO APPETIZERS WERE INJURED  
IN THE MAKING  
OF THIS LAWN**



EXCESS FERTILIZER WASHES TO THE SEA, WHERE BLUE CRABS ARE HAVING

**IS THE GRASS REALLY  
GREENER IF ALL OF THE  
BLUE CRABS ARE GONE?**

SPRING BURNS (LARRY) EXCESS FERTILIZER TO THE SEA, WHERE BLUE CRABS ARE RAPIDLY DISAPPEARING.



# PROTECT THE CRABCAKE POPULATION

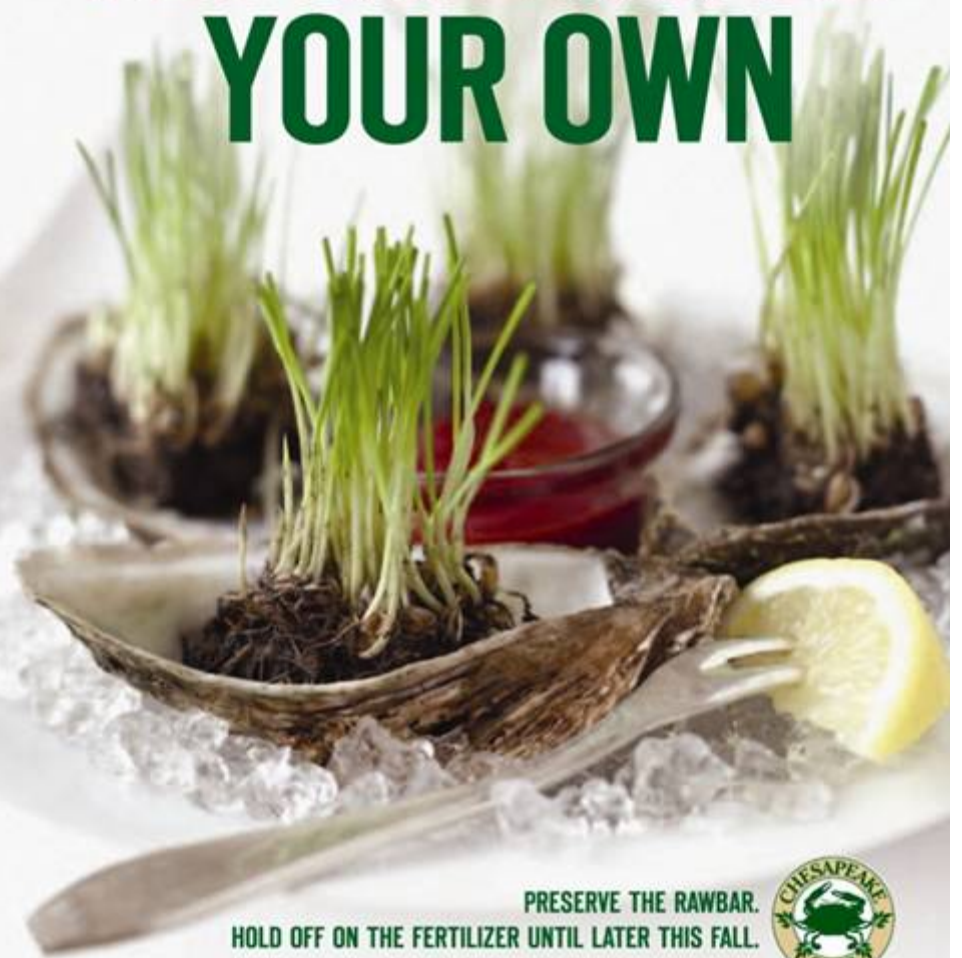


SKIP THE LAWN FERTILIZER UNTIL FALL,  
BEFORE THERE ARE NO GENUINE MARYLAND CRABCAKES.



[www.ChesapeakeClub.org](http://www.ChesapeakeClub.org)

# THE LUNCH YOU SAVE MAY BE YOUR OWN



PRESERVE THE RAWBAR.  
HOLD OFF ON THE FERTILIZER UNTIL LATER THIS FALL.



[www.ChesapeakeClub.org](http://www.ChesapeakeClub.org)

# Social Marketing



**SPRING RAINS WASH  
EXCESS FERTILIZER FROM OUR AREA TO  
THE CHESAPEAKE BAY, WHERE BLUE CRABS  
HAVE BEEN RAPIDLY DISAPPEARING.  
SO SKIP THE LAWN FERTILIZER UNTIL FALL.  
THE LUNCH YOU SAVE MAY BE YOUR OWN.**

Find out how to keep the Blue Crabs coming at  
[www.chesapeakeclub.org](http://www.chesapeakeclub.org)



**NO APPETIZERS  
WERE INJURED IN THE  
MAKING OF THIS LAWN.**



Play TV Ads

# Questions?



Laura McKay

(804) 698-4323

[laura.mckay@deq.virginia.gov](mailto:laura.mckay@deq.virginia.gov)