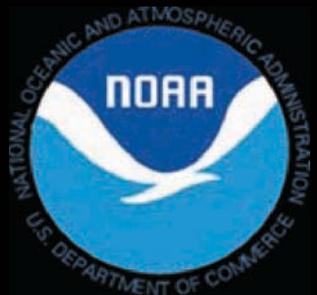


# Virginia CZM's Seaside Heritage Program Focal Area for 2002-2008



**Virginia Coastal Zone**  
MANAGEMENT PROGRAM





**SUBAQUEOUS  
LANDS**  
Marine  
Resources  
Commission

**DUNES**  
MRC &  
Local Wetlands  
Boards



**WETLANDS**  
MRC, DEQ &  
Local  
Wetlands  
Boards



**SHORELINE  
SANITATION**  
Dept. Health



**Virginia Coastal Zone**  
MANAGEMENT PROGRAM

**FISHERIES**  
DGIF & MRC



**AIR  
POLLUTION**  
Dept.  
Environmental  
Quality



**DEQ  
LEAD AGENCY**

**NONPOINT SOURCE  
WATER POLLUTION**  
DCR & Local Governments



**POINT  
SOURCE  
WATER  
POLLUTION**  
DEQ



**COASTAL  
LANDS  
MANAGEMENT**  
Dept.  
Conservation &  
Recreation



# Virginia's Coastal Zone



# Executive Order

Signed by each new Governor to direct state agencies to attain

## 10 Goals (in 3 categories)

Coastal Resource  
Protection



# Coastal Resource Sustainable Use



# Coastal Management Coordination



30 Member Interagency Coastal Policy Team

In 1999 discontinued competitive grants and began "Focal Areas"

First was  
Oyster  
Heritage  
Program



# Seaside Heritage Program

2002-2008

\$2.7 Million CZM Investment



# Why the Seaside of Virginia's Eastern Shore?



# The Seaside in the 1800's



A fine catch of fish, Wallop's Island, ca. 1900

T. L. COBB,  
J. T. SPADY.

OPEN ALL THE YEAR

THE GRANDEST SURF-BATHING ON THE ATLANTIC COAST  
BOATING, HUNTING, FISHING.  
THE HUNTER'S PARADISE.

COBB'S ISLAND HOTEL,  
COBB & SPADY, PROPRIETORS,  
COBB'S ISLAND, NORTHAMPTON CO., VA.

TERMS:

Per Day	\$ 2.50
Per Week	12.00
Per Month	40.00

Children under twelve years old and Servants—Half Price.



## The Problem:

By the 1930's, hurricanes, eelgrass disease and over-harvesting wiped out the seaside's natural resources and tourism.

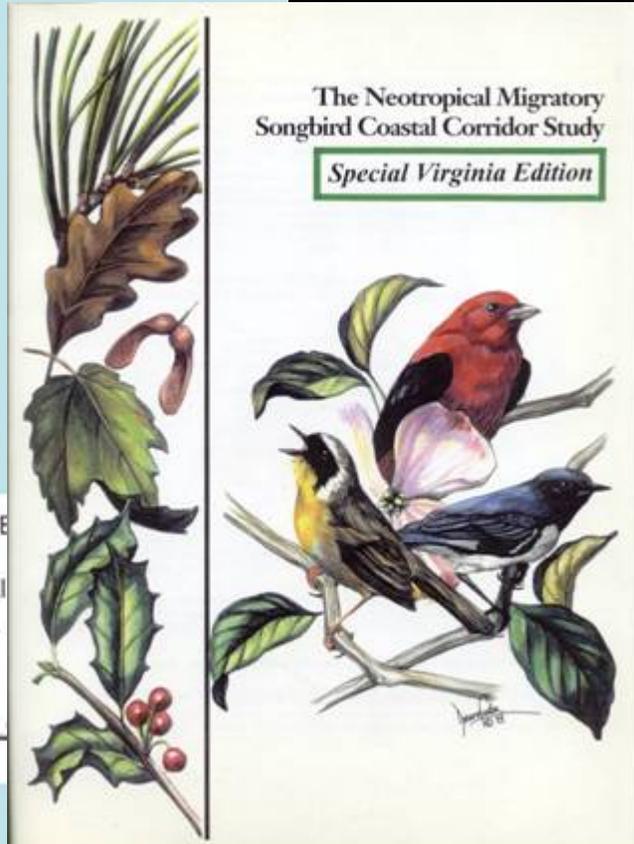
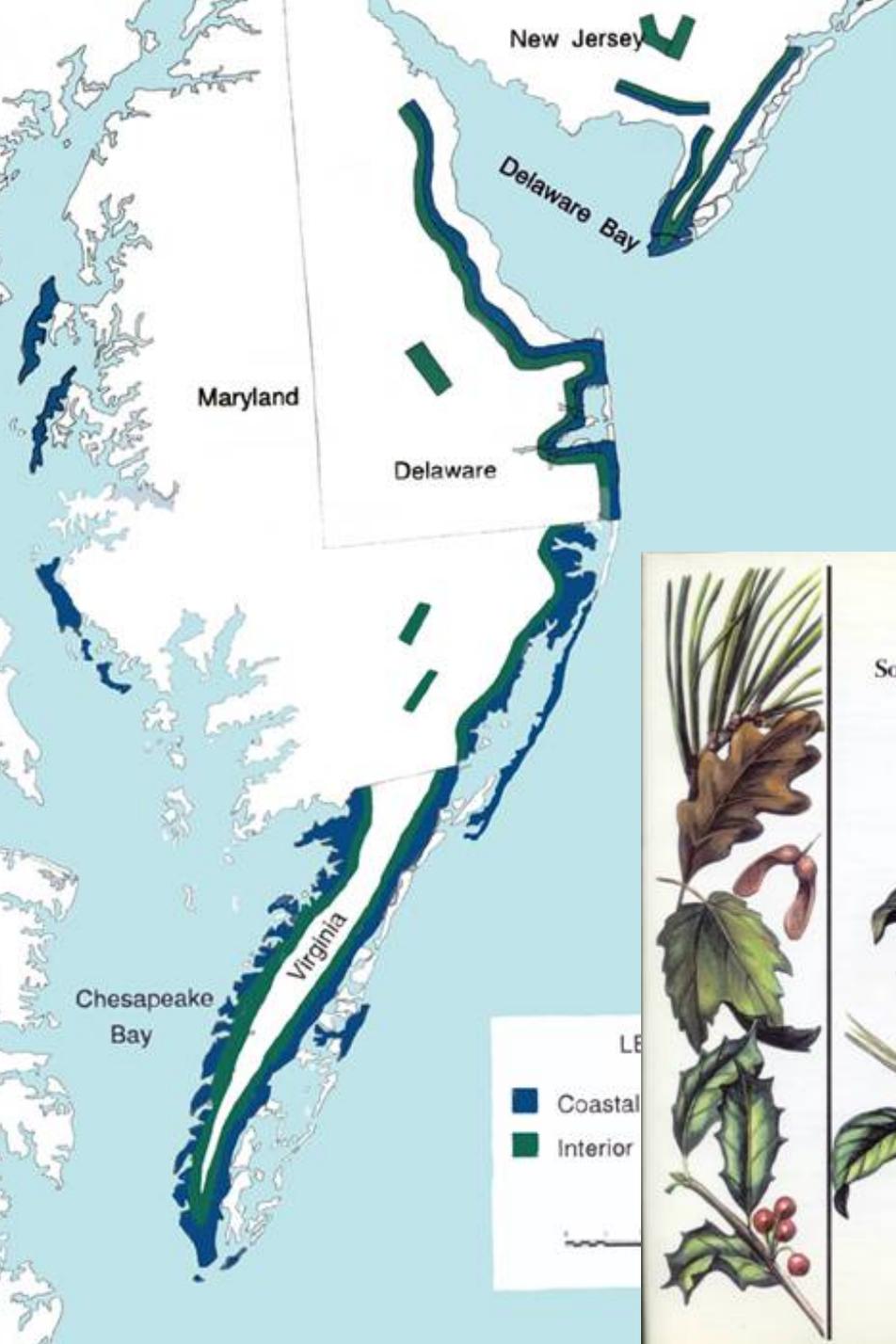


Despite major land conservation/acquisition efforts, system was not rebounding ...

Seaside system even designated as "Man and the Biosphere Reserve by United Nations...

# 1991 Interstate Neotropical Migratory Songbird Study

\$165,000 CZM Investment



# Northampton Special Area Management Plan 1991-1997

## \$2 Million CZM Investment

- Sensitive natural areas in pink. Groundwater recharge areas in blue
- Developed policies to protect groundwater and habitat in sensitive areas
- Groundwater policies adopted but not habitat policies
- Initiated Birding Festival!



# Seaside Heritage Program

2002-2008

\$2.7 Million CZM Investment



# Seaside Heritage Program Partners

- Virginia CZM
- Accomack- Northampton Counties & Planning District Commission
- Marine Resources Commission
- Dept. Conservation & Recreation
- Dept. Game & Inland Fisheries
- Dept. Environmental Quality
- US Fish & Wildlife Service
- College of William & Mary
  - Institute of Marine Science
  - Center for Conservation Biology
- University of Virginia
- E. Shore Community College
- The Nature Conservancy
- Southeast Expeditions
- Eastern Shorekeeper

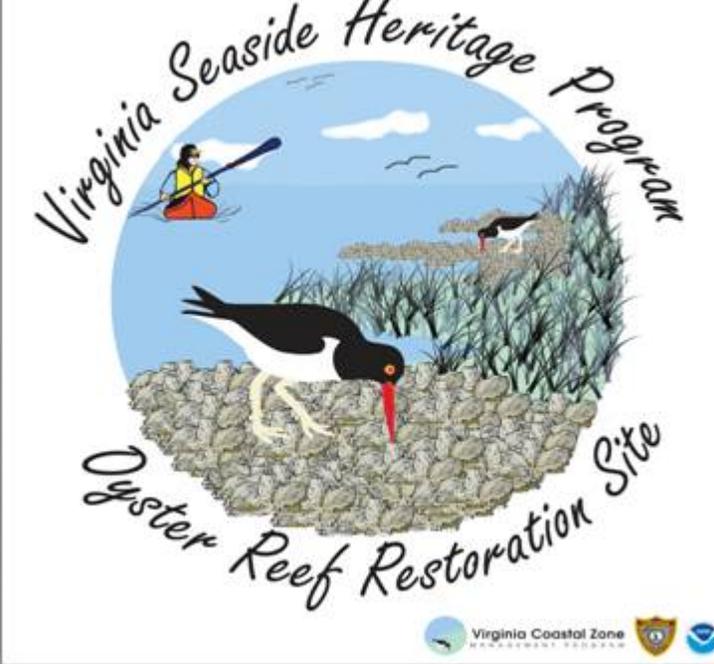


Partners determined what parts of this ecosystem should be/could be "fixed."



## ...Seagrass Restoration

- \$654,000 to VIMS
- planted eelgrass now occupying >360 acres
- could bay scallops return?



...Oyster Reef Restoration

- \$363,000 to VMRC to create ~15 acres
- \$140k to VIMS for oyster inventory by late 2008





## ...Marsh Habitat Restoration

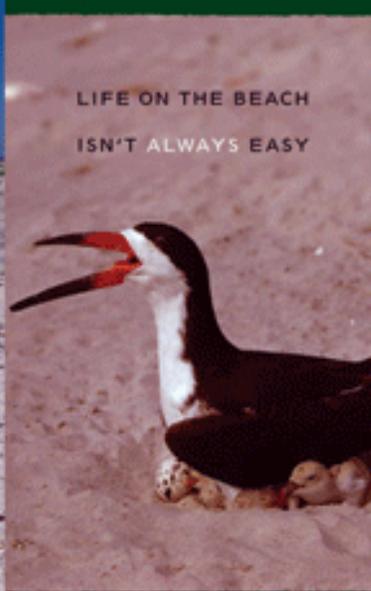
- \$324,231 to DCR
- mapped 2,000 acres Phrag
- removed 300+ acres of Phragmites
- 12+ community workshops

• \$130k to CCB  
to identify  
high priority  
marshes for  
treatment  
based on needs  
of rare marsh  
birds





WATCH YOUR STEP!



LIFE ON THE BEACH  
ISN'T ALWAYS EASY



### Help protect Virginia's nesting birds.

Nests and chicks are very sensitive to your presence. Please:

- 1 Respect all posted bird nesting areas.
- 1 Leave your dogs at home. They destroy nests and chase young birds.
- 1 Avoid the berm, dunes, washovers, and backside muddflats.
- 1 Remain below the last high tide line to avoid injuring chicks or eggs.
- 1 Be aware of birds calling loudly from the beach or over your head. They are letting you know that you are too close to a nest or hidden chicks.
- 1 Teach others to appreciate the beauty and wildlife of Virginia's barrier islands.

See the egg hidden in the sand? That's why it's so important to walk below the high tide line whenever possible.

Please help protect  
beach-nesting birds  
while visiting  
Virginia's barrier islands.



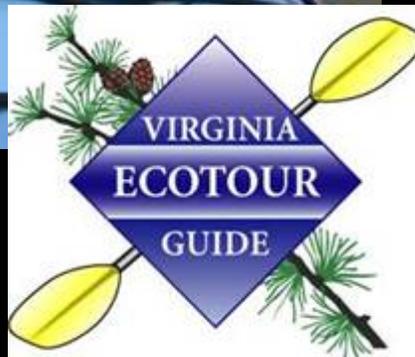
## ...Bird Habitat Restoration

- \$341,000 to VMNH, W & M Center for Conservation Biology
- control predators, conduct habitat suitability assessments, and research clam farm impacts on birds
- beach-nesting bird populations finally rebounding

# Navigating the Virginia

## Seaside Water Trail

*An Internet Guide to Paddling the  
Seaside of Virginia's Eastern Shore*



## ...Ecotourism Improvements

- \$222,250 to AN PDC, DGIF, CZM, VIMS, SEE, ESCC
- seaside water trail
- interpretive signage
- 4 floating docks
- Willis Wharf wildlife observation deck
- eco-guide certification courses
- water camping study



## ...Aquaculture Development

- \$100k to VIMS & Sea Grant;
- \$111k to Shorekeeper
- research on impacts
- Best Management Practices
- water quality data

# And almost all of the Seaside Data resides in Coastal GEMS (Geospatial & Educational Mapping System)

- Available on-line
- Maps of land and water "gems"
- Links to fact sheets
- Links to managing agencies

Virginia DEQ - Virginia Coastal Zone Management Program - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://www.deq.virginia.gov/coastal/>

Commonwealth of Virginia | Governor

Search DEQ

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

Virginia Coastal Zone MANAGEMENT PROGRAM

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 Search | Coastal News & Events | Zoom To Locality

Go!

Map Layers Results

Show All Map Layers

Water Features

- Fisheries Management Areas
- Baylor Grounds (Public Oyster Grounds)
- Private Oyster Leases
- State Constructed Oyster Reefs
- Commercial Shellfish Aquaculture Sites
  - Hard clam
  - Soft clam
  - Oyster
  - Crab shed
- Oyster Gardening Sites
- Submerged Aquatic Vegetation (SAV)
- Seaside SAV Planting Sites
- Anadromous Fish Use Areas
- Threatened & Endangered Species Water

Advanced Tools Export/Print Help





Address Search | Coastal News & Events | Zoom To Locality

Go!

Map Layers Results

- Recreational Features**
- Conservation Planning Tools**
  - Clam Aquaculture Suitability Model
    - Not assessed
    - Optimal
    - Suitable
    - Unsuitable
  - Oyster Aquaculture Suitability Model
  - Biotic Stream Assessment (INSTAR) Sites
  - Impediments to Fish Movement (Dams)
  - Marina Siting Suitability
  - Seaside Invasive Reed (Phragmites)
- Conservation Planning Examples**
  - Seaside Heritage Program Boundary
  - Southern Watersheds Program
- Reference Layers**
  - County Boundaries
  - Detailed Streams
  - Roads

Advanced Tools Export/Print Help

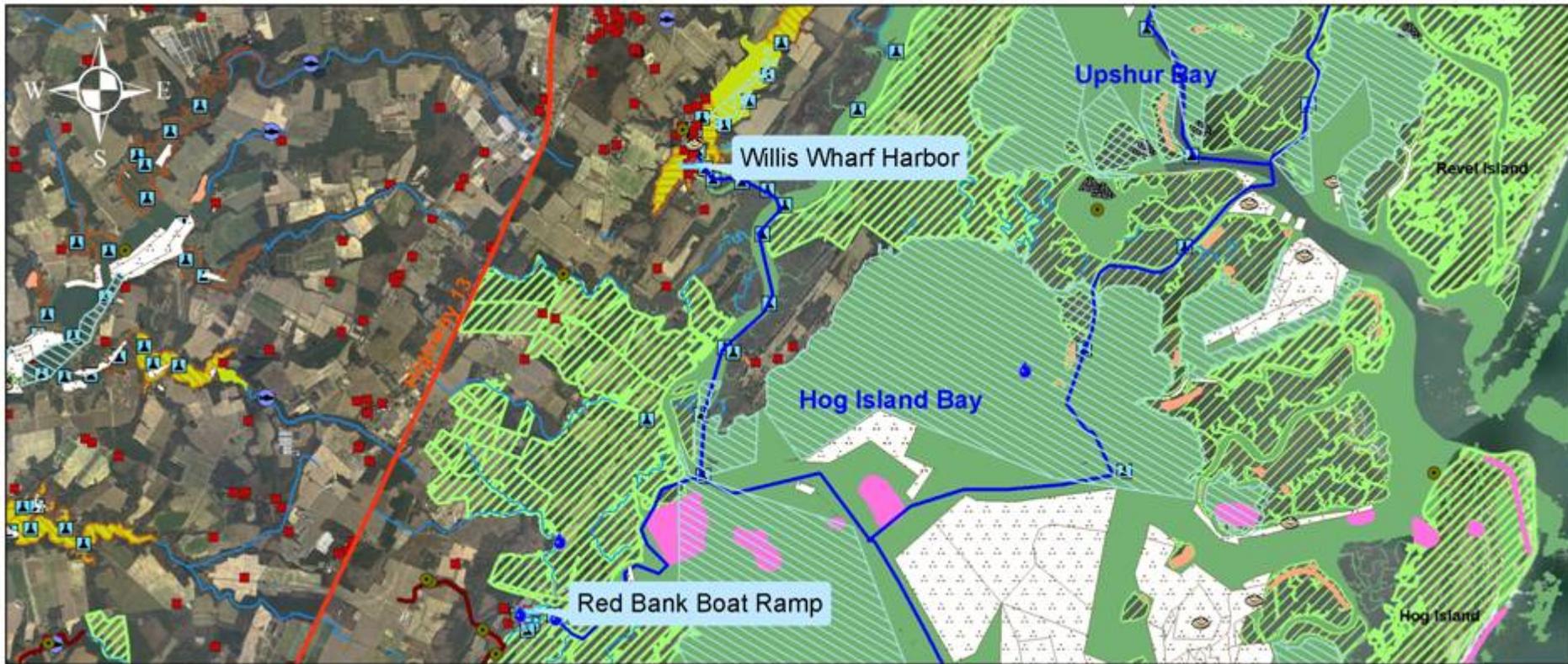


2 mi Scale 1:86439

37° 23' 43.26"N 75° 51' 03.73"W

# Ways to Use Coastal GEMS

Example: Identify locations for DEQ Reg on "Shellfish Aquaculture Enhancement Zones"



Willis Wharf - Example of Data Integration Through Coastal GEMS

## Monitoring Stations

- WQ Data (VIMS)\*
- WQ Data (DEQ)
- INSTAR Data (VCU)
- Sampling Stations (VDH)

\* Parentheses refer to the agency that maintains this data.

## Impairments

- Impaired Waters (DEQ)
  - Shoreline Deficiencies (VDH)\*\*
  - Shellfish Condemnation Zones (VDH)**
    - Condemned
    - Seasonally Condemned
- \*\* Examples are leaking septic tanks or sewage treatment facilities

## Aquaculture

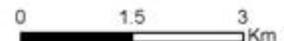
- Hard Clam Aquaculture Leases (VMRC)
- Private Leased Grounds (VMRC)
- Public Baylor Grounds (VMRC)
- Clam Aquaculture Suitability (VIMS)**
  - Optimal
  - Suitable

## Natural Resources

- Oyster Restoration (VMRC)
- Colonial Waterbird Data (2003) (CCB)
- Shorebird Areas (1994-1996)(CCB)
- Seaside Water Trail Public Access (ANPDC)
- Seaside Water Trail (ANPDC)
- Conservation Lands (DCR/TNC)

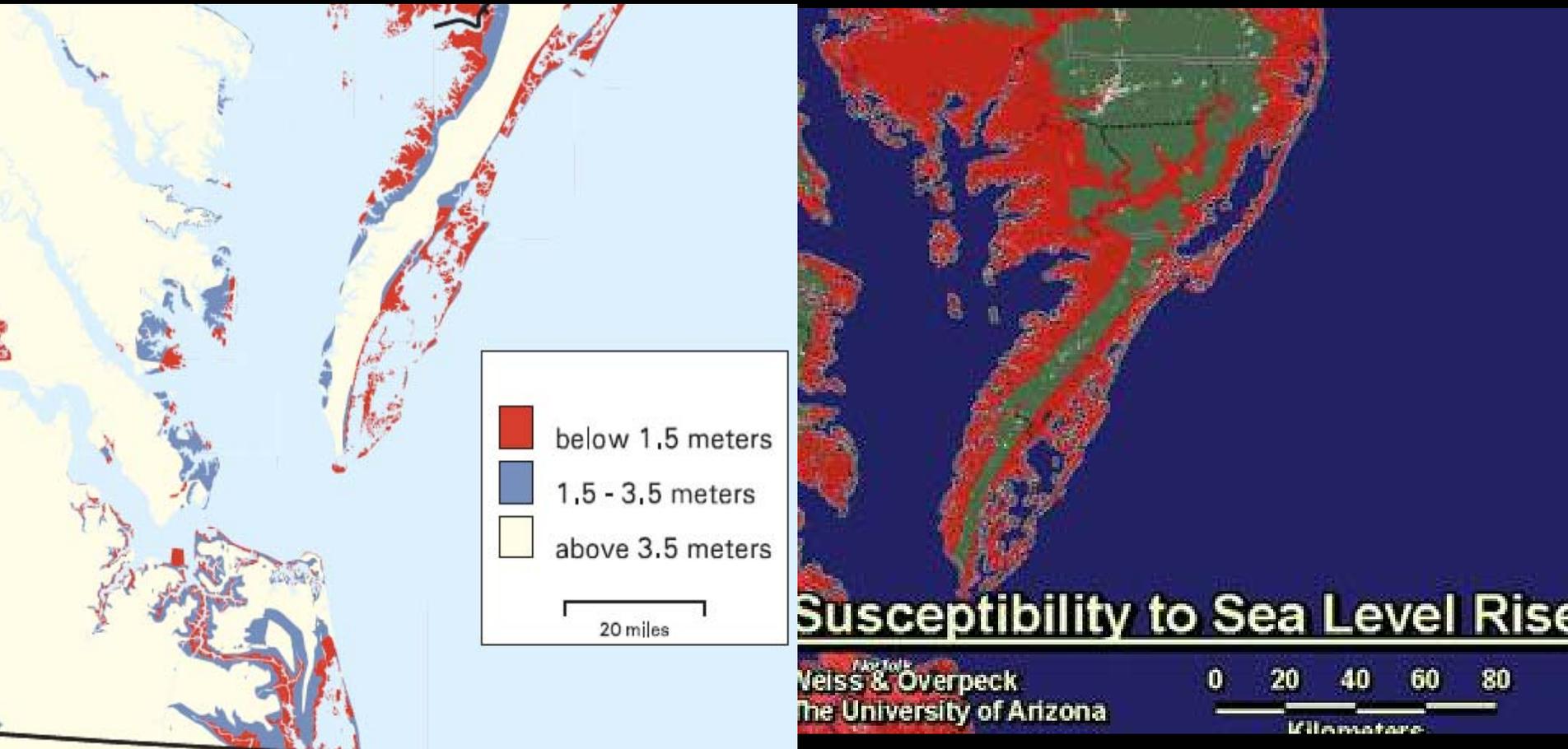


Aerial Photography  
2002  
Commonwealth  
of Virginia



# Sea Level Rise by 2100

50-80% of Virginia's tidal wetlands will be lost if we get a 1.5-2 ft rise in sea level.



([http://epa.gov/climatechange/effects/coastal/slrmaps\\_ma.html](http://epa.gov/climatechange/effects/coastal/slrmaps_ma.html))

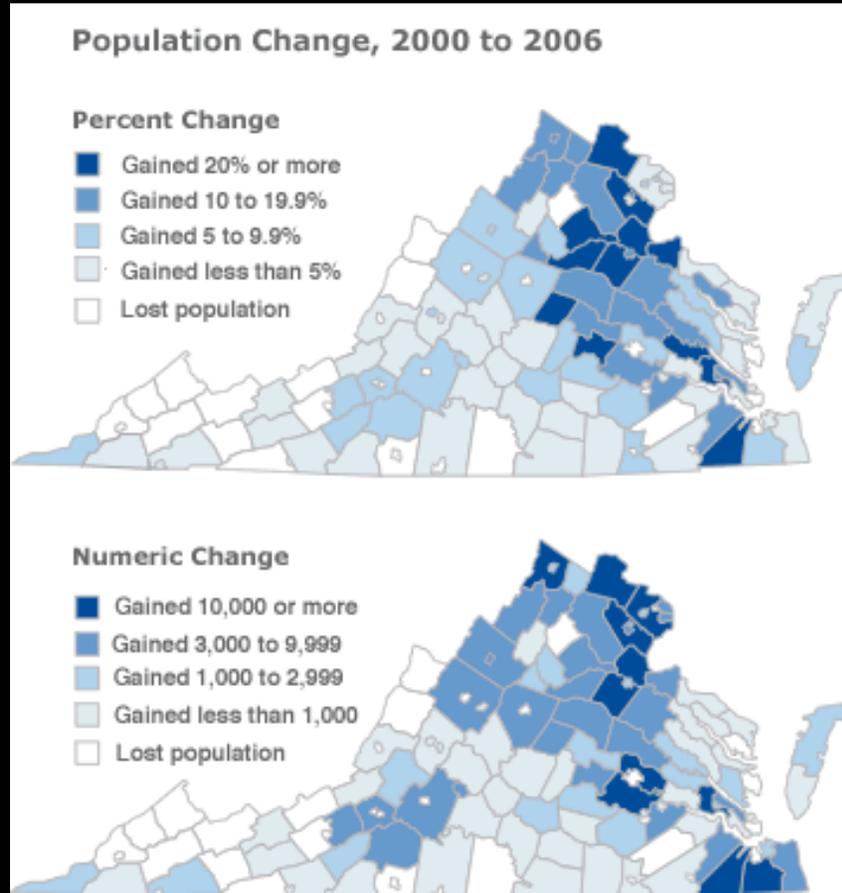
(Red area = 19 ft sea level rise)

# Population Growth

According to US Census Bureau, Virginia's population is expected to grow:

1995  
6.6 million

2025  
8.5 million



Weldon Cooper  
Center, UVA

# Seaside Special Area Management Plan 2007-2010

\$324,000 CZM Investment

- Develop policies to protect seaside resources (\$44,100 with UVA Institute for Environmental Negotiation for a Management Plan; \$10k for build-out scenarios through DAWN).
- Develop social marketing campaign to increase public understanding and support for seaside resource protection (\$10k)
- Have another ~ \$75k/yr Oct 2008 through Sep 2011) for policy development.



# Seaside Special Area Management Plan 2007-2010

## The Vision:

The Virginia Seaside will be a healthy, functional and well-managed ecosystem whose unique natural resources sustain cultural, historic, and economic activities that are vital to Virginia's Eastern Shore communities.

## The Plan:

- Plan is needed to protect \$3M investment in restoration
- Plan will cover 10 years and include funding strategies

# Seaside Special Area Management Plan 2007-2010

## The Seaside Partners want the Plan to:

1. Describe the unique natural, cultural and historic resources of the Seaside and promote its value;
2. Establish priorities for continued action;
3. Guide local decisions and provide support for management decisions;
4. Link to sources of additional information;
5. Help designate the Seaside a Western Hemisphere Shorebird Reserve Network "Site of Hemispheric Importance" (at least 500,000 shorebirds annually or at least 30% of the biogeographic population for a species.)
6. Provide an administrative structure for continued Seaside work;
7. Attract funding and support for the Plan's goals and actions;
8. Ultimately, help sustain Seaside resources and Seaside-dependent sustainable industries.



# Questions?

1. How useful was it to focus on one area for 2 rounds of 3 years - is that too much time, too little time? Was the area too large, too small?
2. What were advantages and disadvantages of the Seaside being chosen as the CZM Program's "focal area" for 6 years?



## Questions?

3. How optimistic are you that this restoration work accomplished on the Seaside will be maintained in the face of climate change and population growth?
4. What key policy changes would be needed to ensure habitats, water quality & quantity and sustainable businesses are maintained ?



## Questions?

5. How do challenges on the Seaside compare to challenges in Chesapeake Bay? Should these systems be managed differently and if so why and how?
6. Can energy development (such as wind and natural gas) be appropriately accommodated on the Seaside?



# Questions?

7. Does Virginia need an "ocean management plan" that covers our Atlantic coast out to the 200 mile Exclusive Economic Zone boundary? Or do we need to engage in a regional, mid-Atlantic ocean management plan?