



# Growing & Planting Underwater Bay Grasses



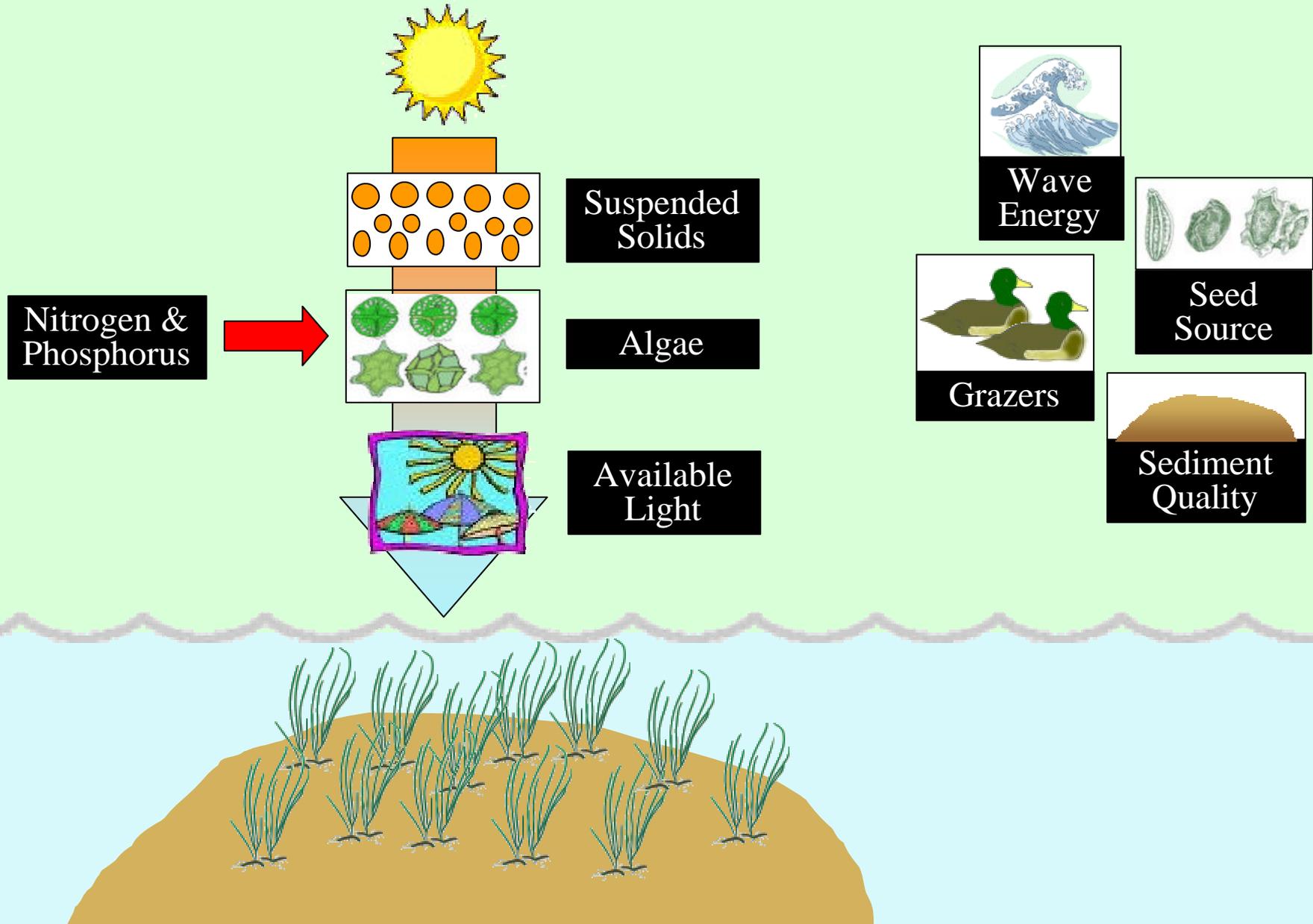
*Presentation developed by  
Chesapeake Bay Foundation and  
modified by NOAA staff for 2004  
"NOAA Restoration Day"*

# What are Underwater Grasses?

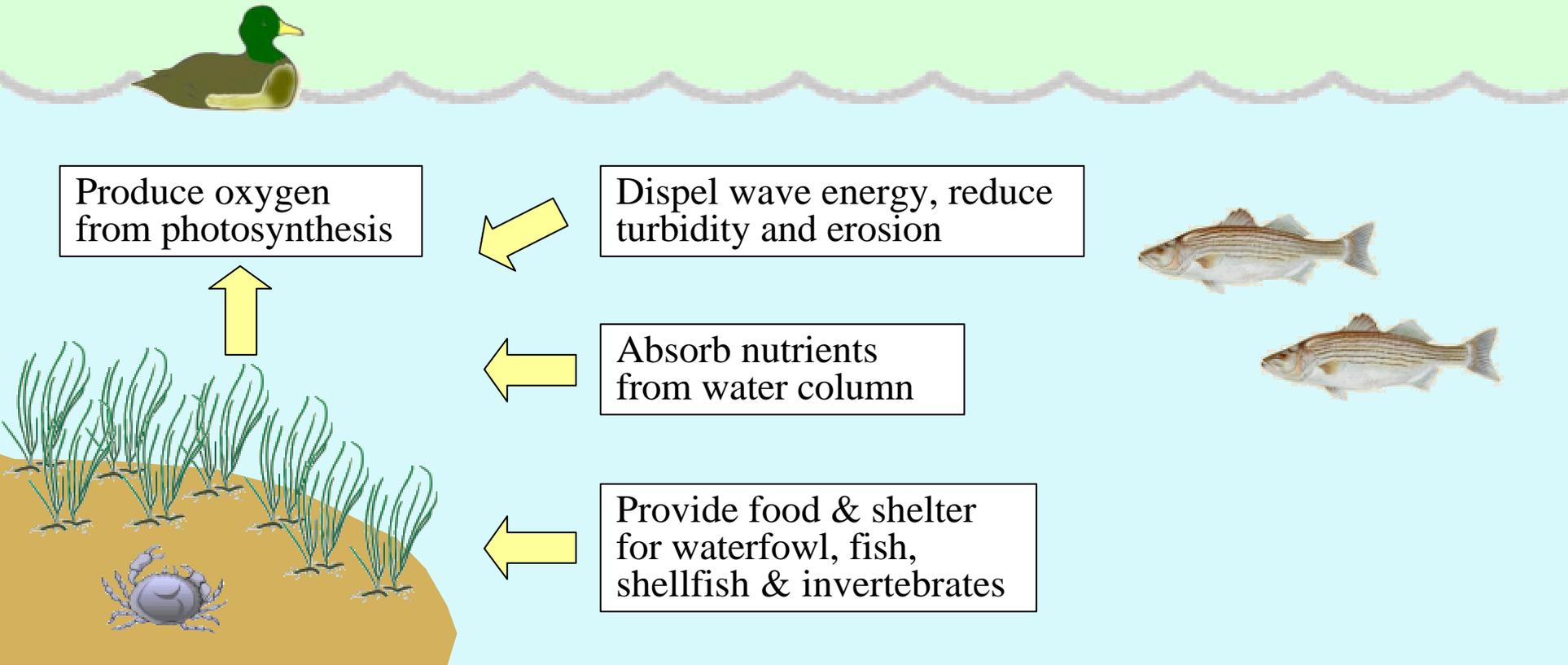
- Rooted, flowering plants; produce seeds
- Grow completely submerged in shallow water of Bay and tributaries
- A.K.A.: SAV, seagrass
- NOT: seaweed, algae



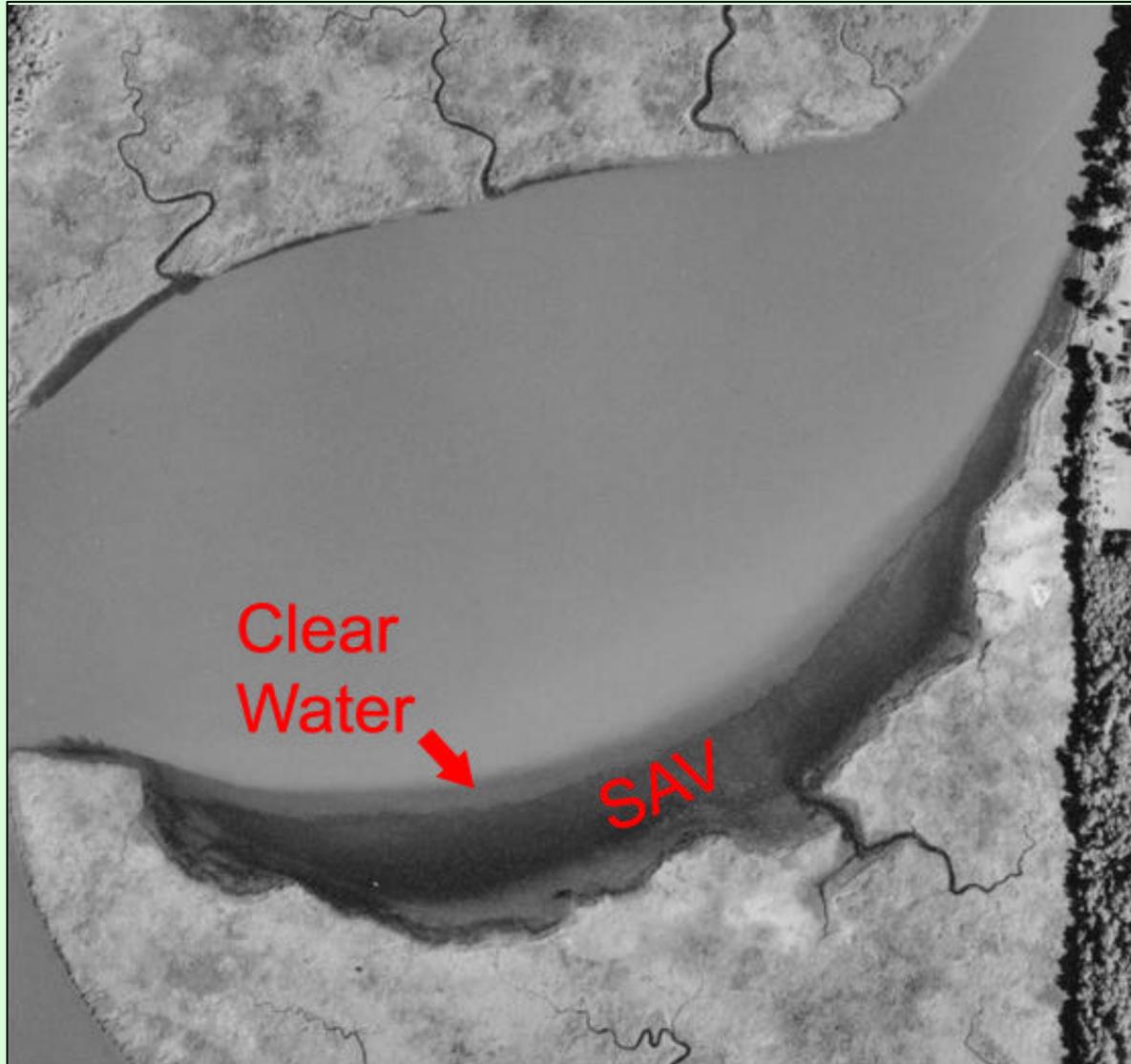
# What Affects SAV?



# SAV: Ecological Role

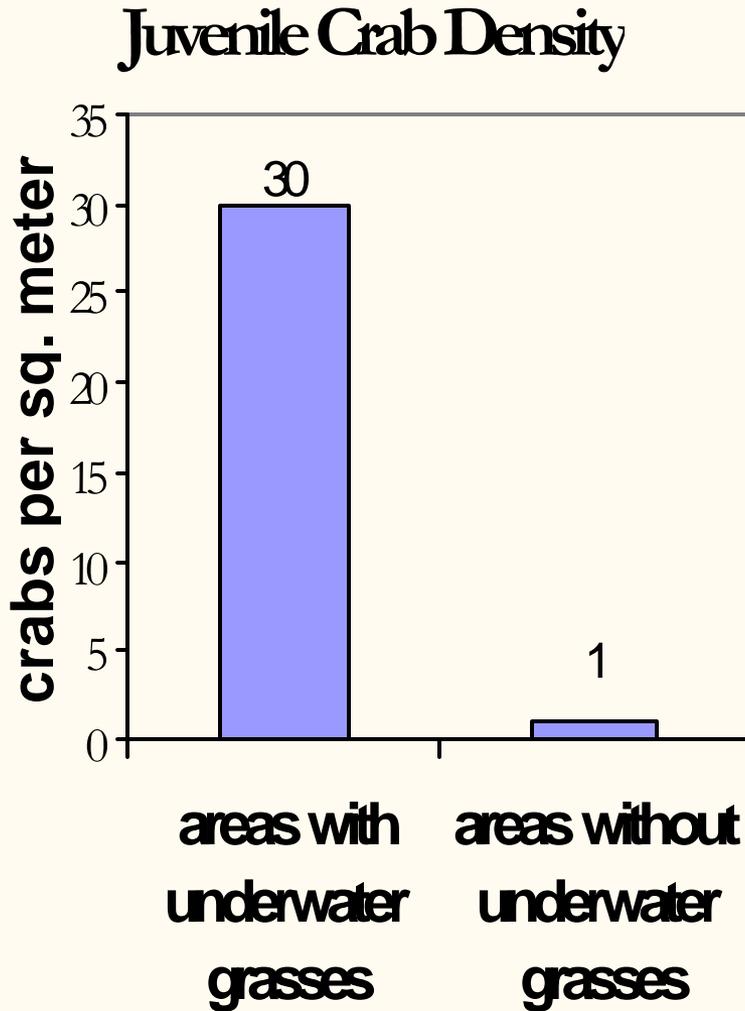


# SAV Helps Clean the Bay



*Source: Maryland DNR*

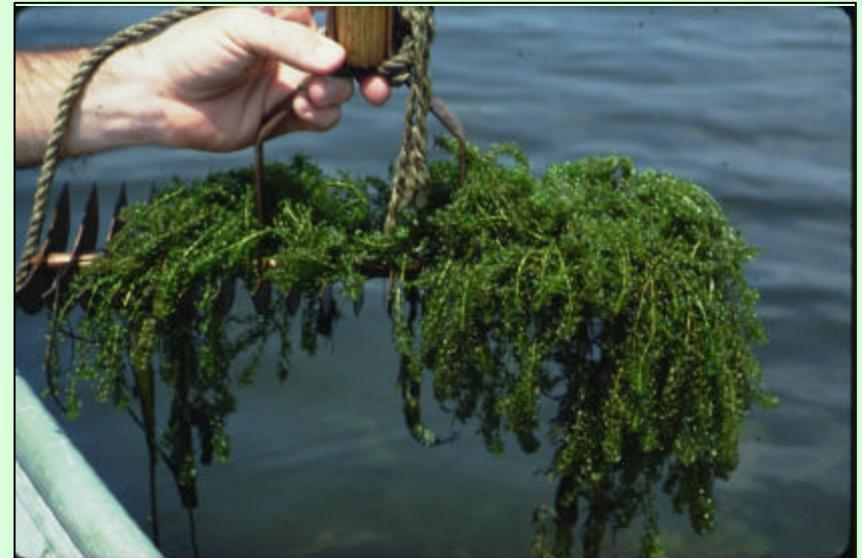
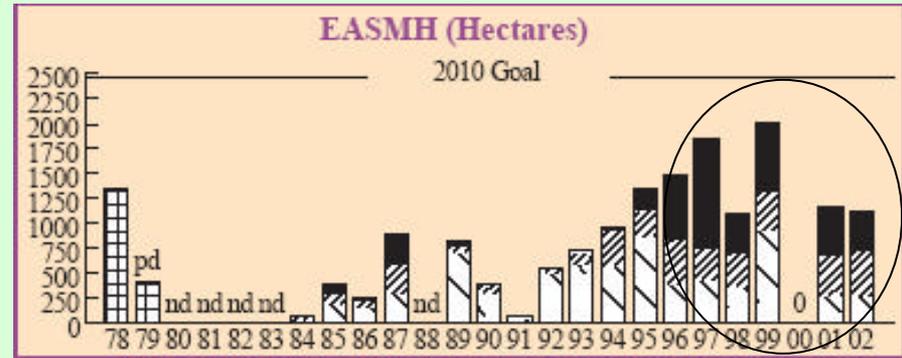
**Are blue crab populations and underwater grass abundance related?**



# Why plant SAV?

- SAV abundance is less than it was in the 1950's, and can be dynamic from year to year
- Causes of its rise and fall are not always clear
- To ensure persistence and provide habitat, we plant SAV to establish a **variety of species growing in numerous locations**

## Eastern Bay--SAV area



Sources: VIMS & US FWS

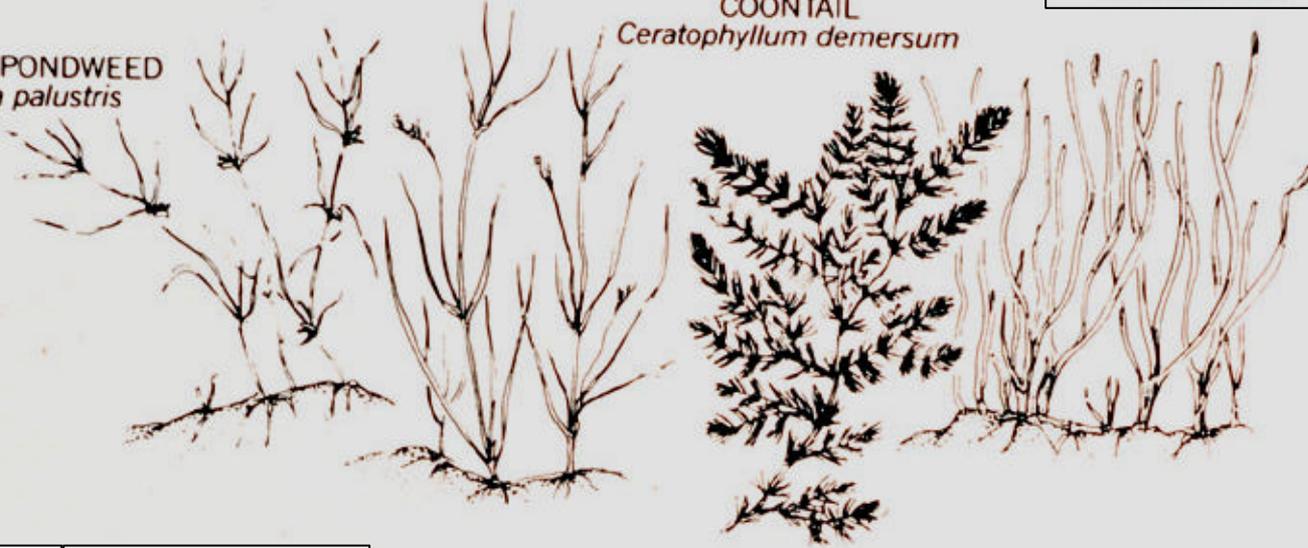
Higher salinity

WIDGEON GRASS  
*Ruppia maritima*

EELGRASS  
*Zostera marina*

COONTAIL  
*Ceratophyllum demersum*

HORNED PONDWEED  
*Zannichellia palustris*



1

WILD CELERY  
*Vallisneria americana*

3

SAGO PONDWEED  
*Potamogeton pectinatus*

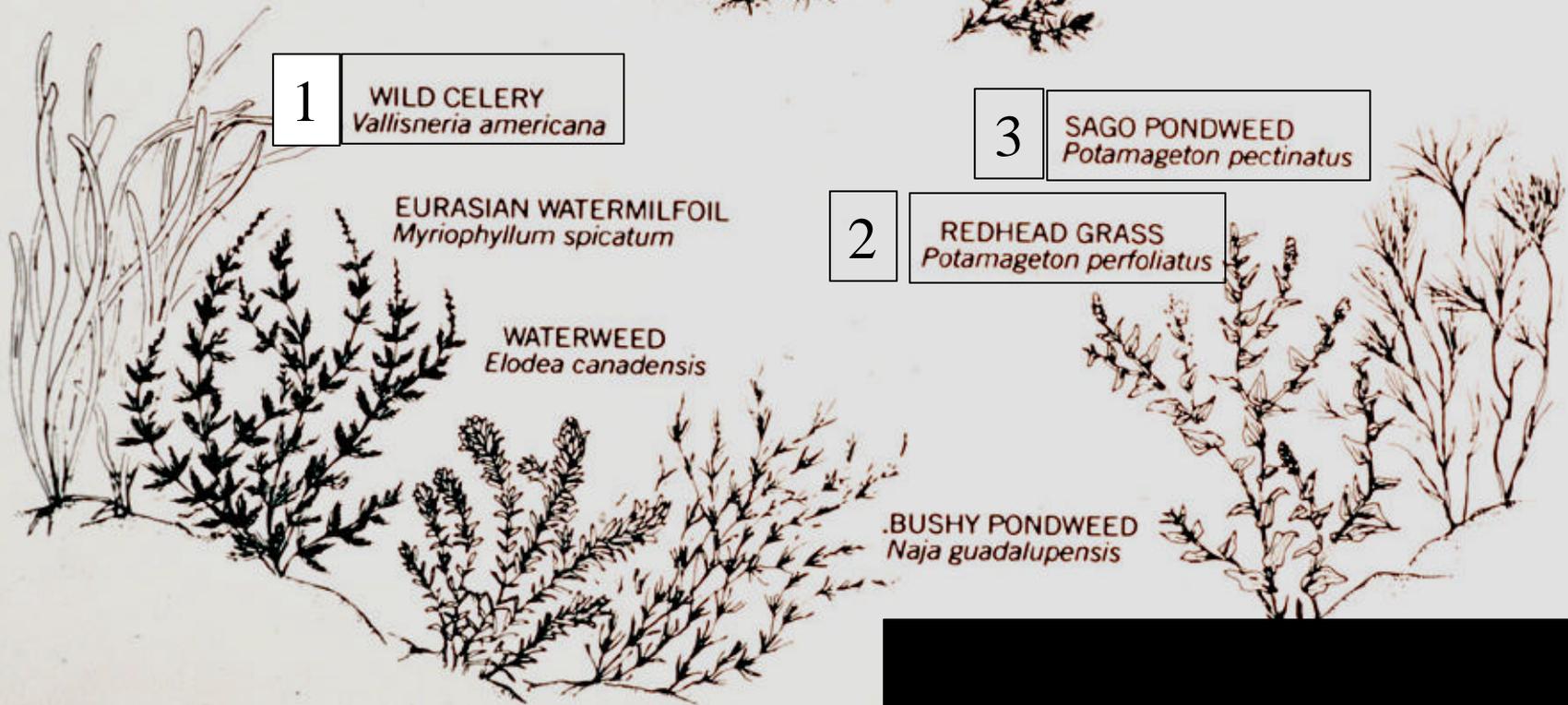
2

REDHEAD GRASS  
*Potamogeton perfoliatus*

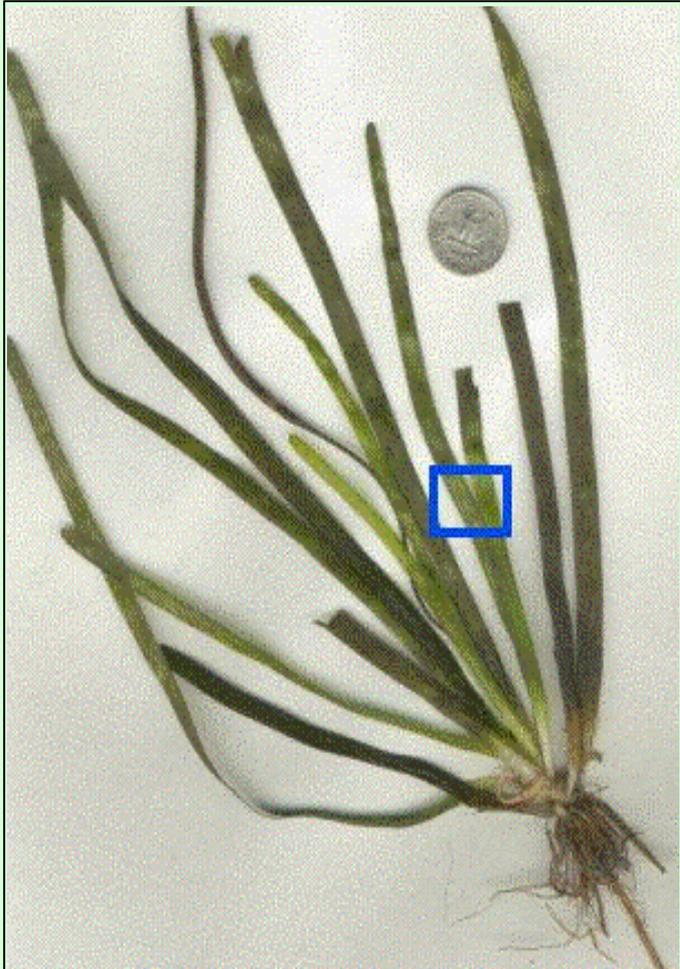
EURASIAN WATERMILFOIL  
*Myriophyllum spicatum*

WATERWEED  
*Eloдея canadensis*

BUSHY PONDWEED  
*Naja guadalupensis*



# Wild Celery (*Vallisneria americana*)



- long, flat ribbon-like leaves
- Found primarily in fresh to oligohaline waters (5 ppt or less)
  - *Water at our planting site is too salty for it, so we will NOT grow it this year*
- excellent waterfowl food

Source: Maryland DNR

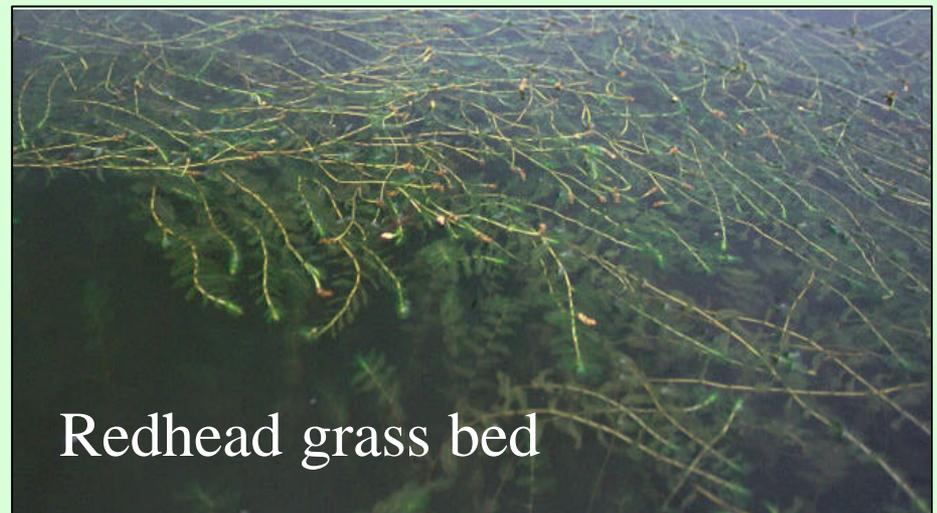
# Redhead Grass (*Potamogeton perfoliatus*)



Rhizomes (become winter buds)

Source: Maryland DNR

- broad oval leaves that clasp the stem at base
- found in mesohaline waters (5-15 ppt)
  - *Grows well at our planting site, so we will grow it this year*
- excellent waterfowl food

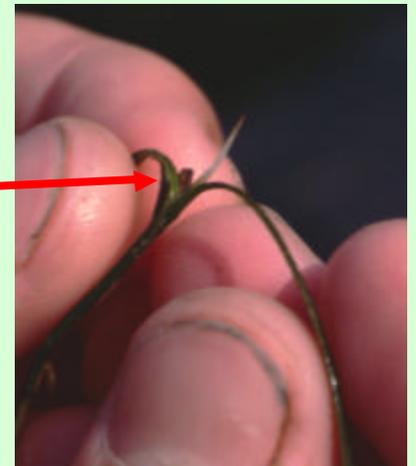


Redhead grass bed

# Sago pondweed (*Stuckenia pectinata*)



- Thin, bushy leaves with terminal seed clusters
- found in mesohaline waters (5-25 ppt)
  - *Grows well at our planting site, so we will grow it this year*
- excellent waterfowl food
- “bayonet” in leaf axils



# What you will be growing



**Sago pondweed growing  
from turions**

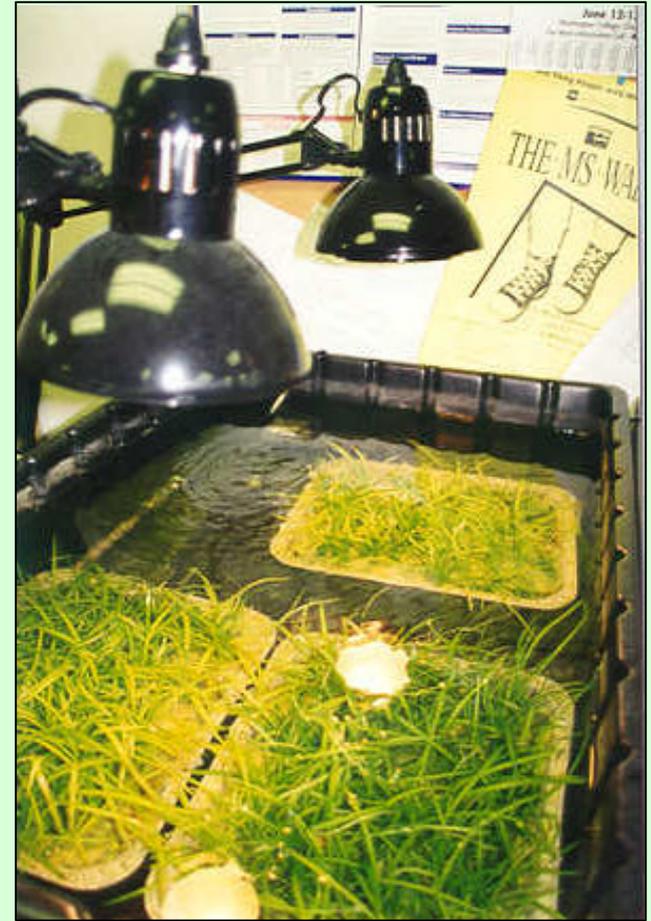


**Redhead grass growing  
from winter buds  
(your buds may be paler)**

# NOAA Grasses: Timeline 2004

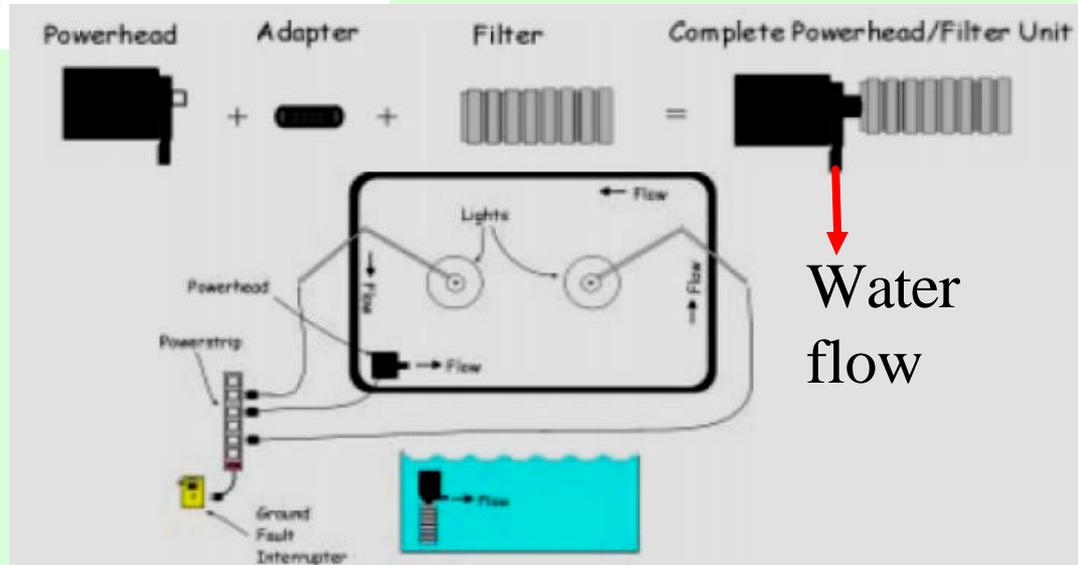
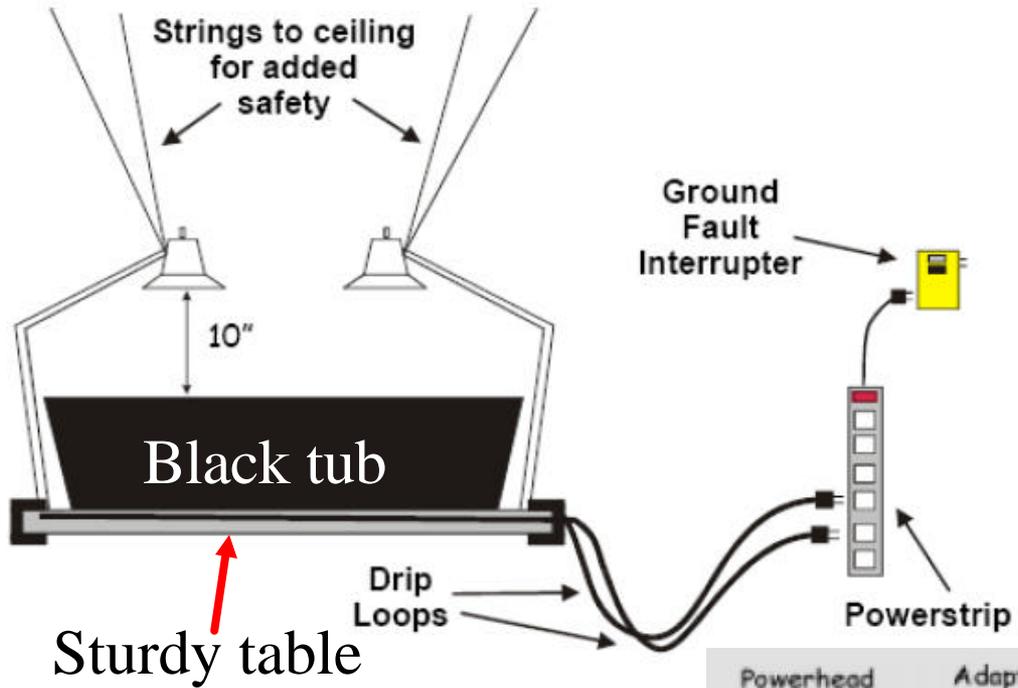
## Schedule

- **March 23:** Today, brownbag workshop; Set up tanks in offices
- **March – June:** Grow-out grasses
- **June 15:** Plant in field at NOAA Restoration Day
- **June – October:** Monitoring



*Source: NOAA*

# NOAA Grasses: Setup



*See handout for details*

*Source: Maryland DNR*

# 2004 Planting During NOAA Restoration Day



**When:** **Tues. June 15, 2004** (rain date: June 17)

**Time:** 10am – 2pm

**Where:** Chesapeake Bay Environmental Center,  
Grasonville, MD (just east of Kent Island)

**RSVP:** [Alison.Hammer@noaa.gov](mailto:Alison.Hammer@noaa.gov) by June 4

## Six Restoration Activity Stations:

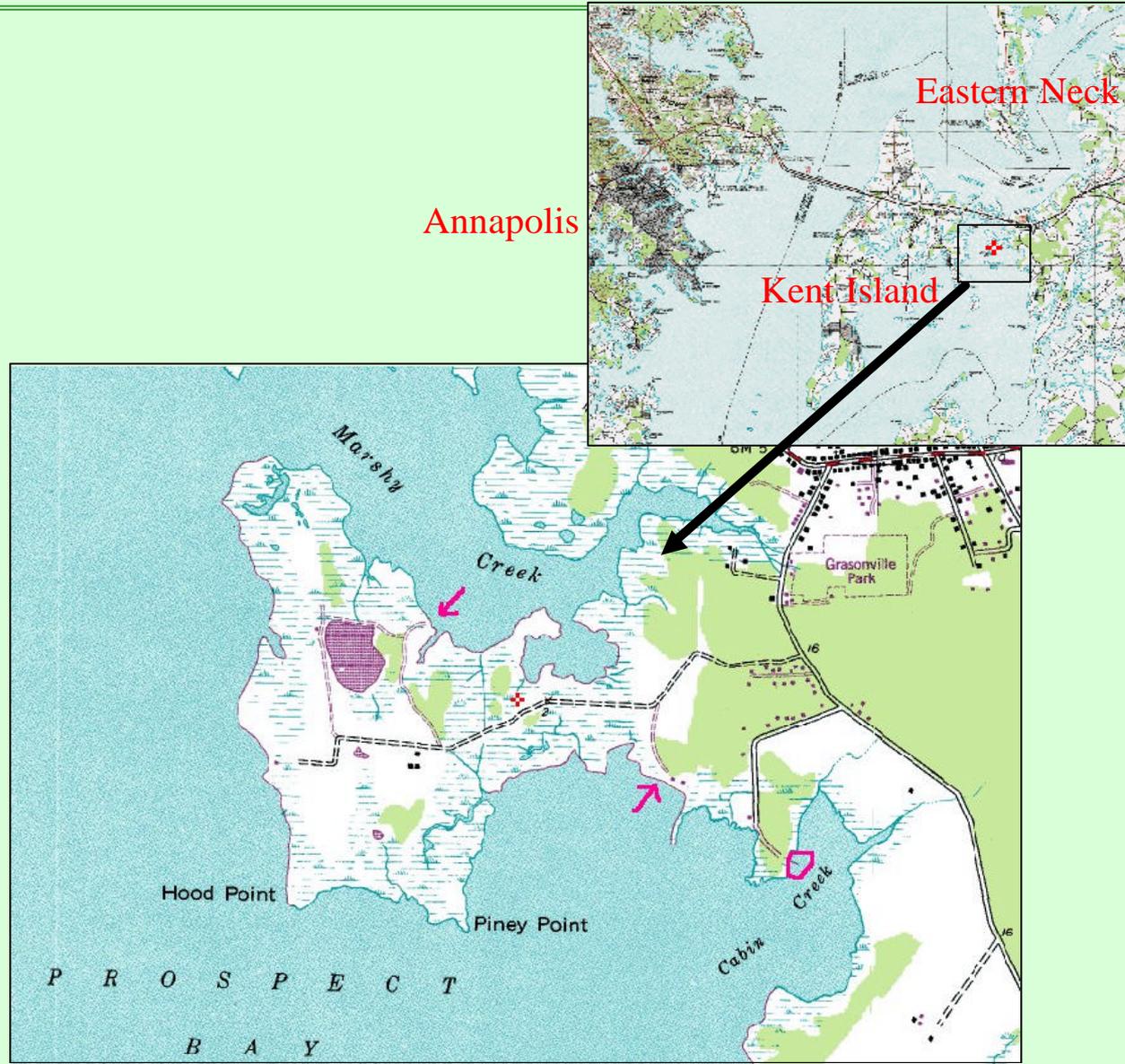
- 1) Baygrass Planting
- 2) Shoreline Stabilization and Wetland Planting
- 3) Oyster Restoration
- 4) Wetlands Clean-up
- 5) SAV Identification Hunt
- 6) Construct Floating Dock and Remove Old Structure



# Planting Site: Chesapeake Bay Environmental Center

We choose planting sites based on:

- Water Quality
- Historical SAV Abundance
- Presence of SAV in adjacent areas (species diversity)
- Substrate
- Accessibility
- Potential habitat benefits

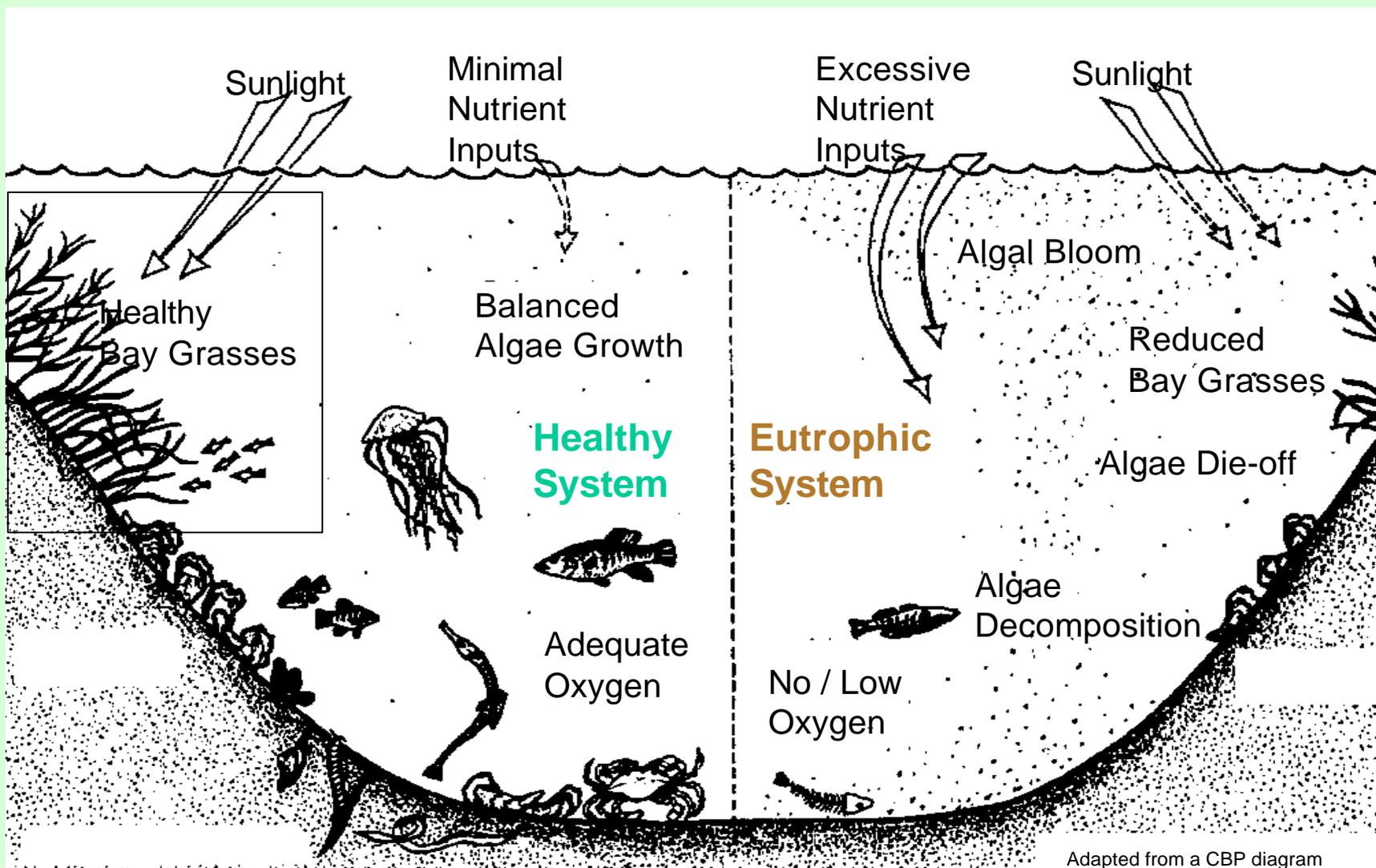




# Planting Day



# Which Bay Do We Want?



Adapted from a CBP diagram

Original drawing by Kent Mountford

SAV Success =  
Habitat!



*Source: US FWS*