

The Potential Influence of Climate Change on Submerged Aquatic Vegetation (SAV) Trends in the Chesapeake Bay

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Coastal Estuarine Research Federation

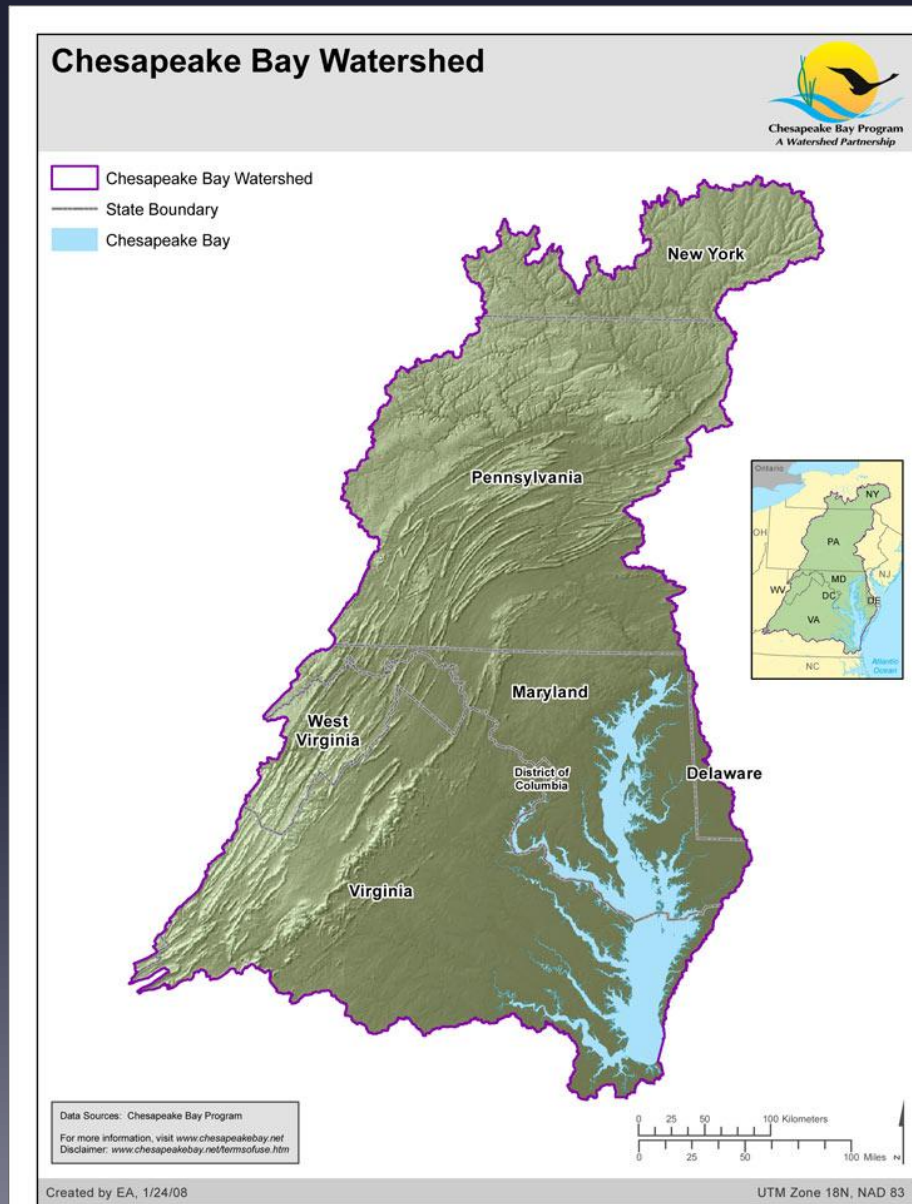
San Diego , California

November 7, 2013

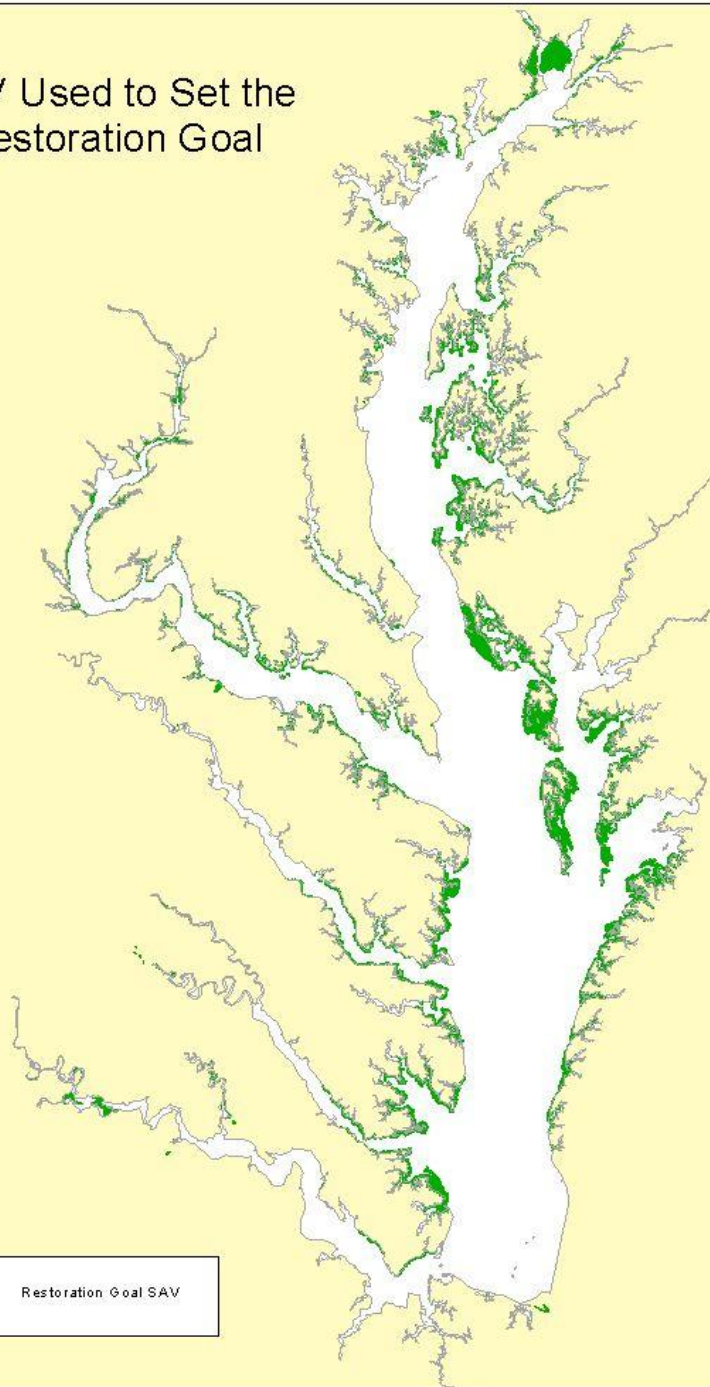


Chesapeake Bay Facts

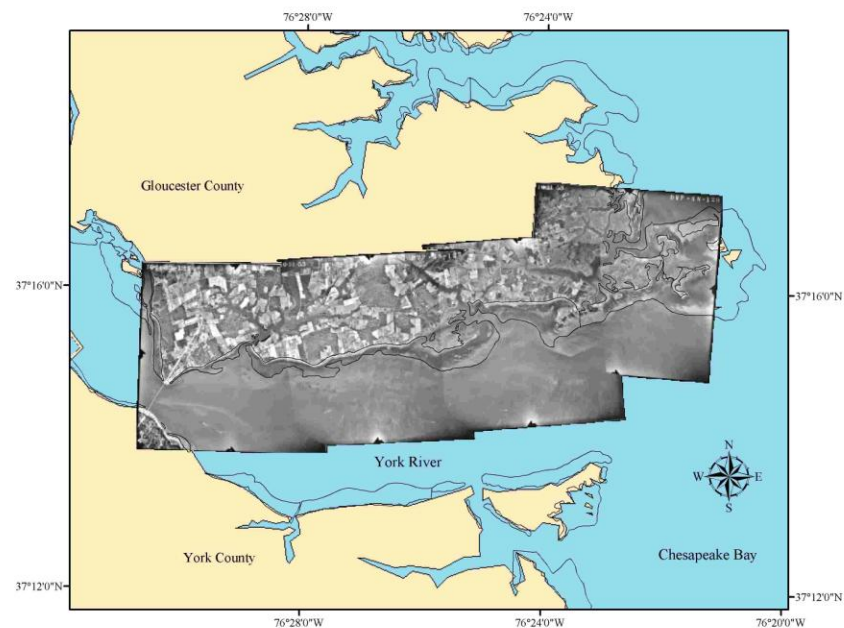
- Largest estuary in the US
- 64,000-square-mile watershed including
- 6 states and DC
- >17 million people in the Bay Watershed
- Nearly 80,000 acres of bay grasses grow in the shallows of the Chesapeake Bay and its tributaries.

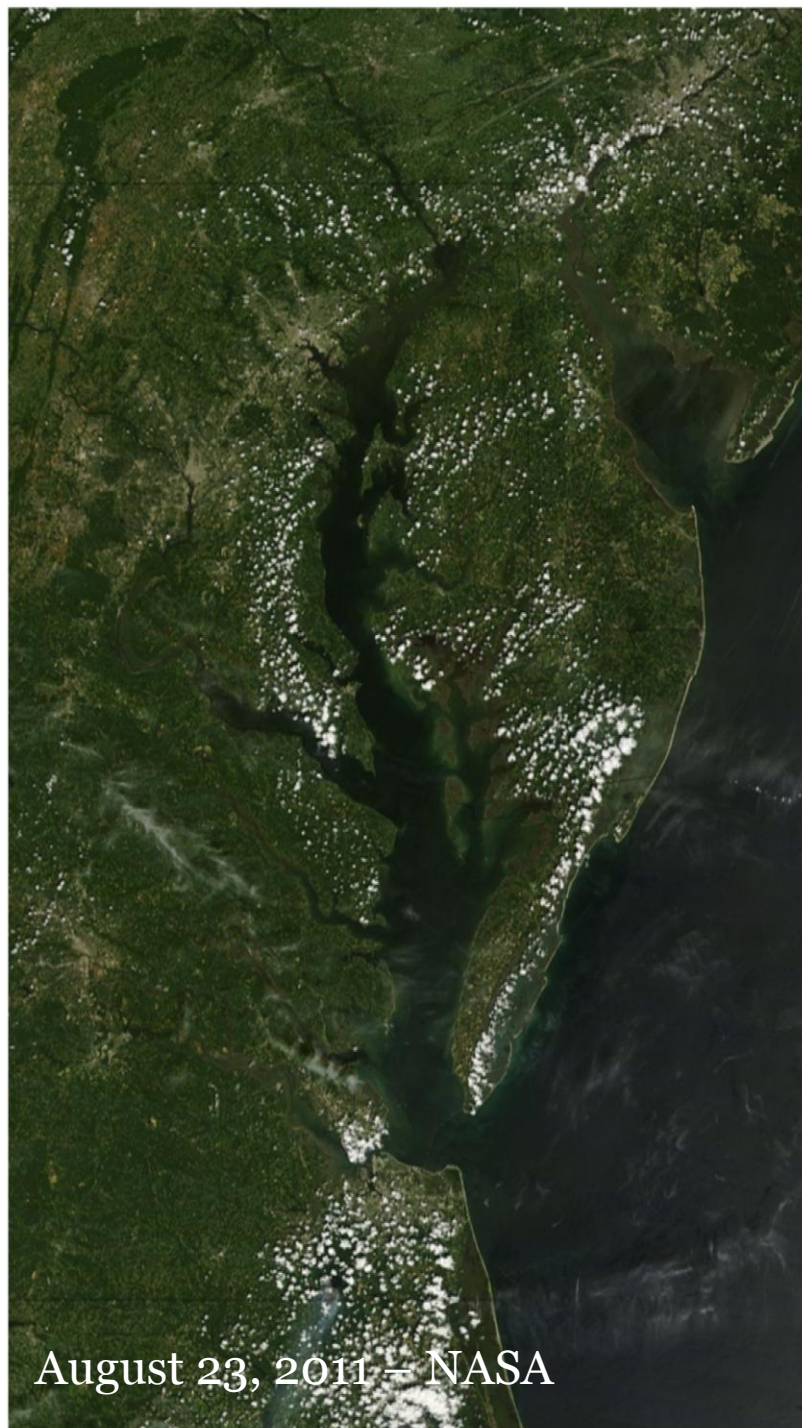


SAV Used to Set the Restoration Goal

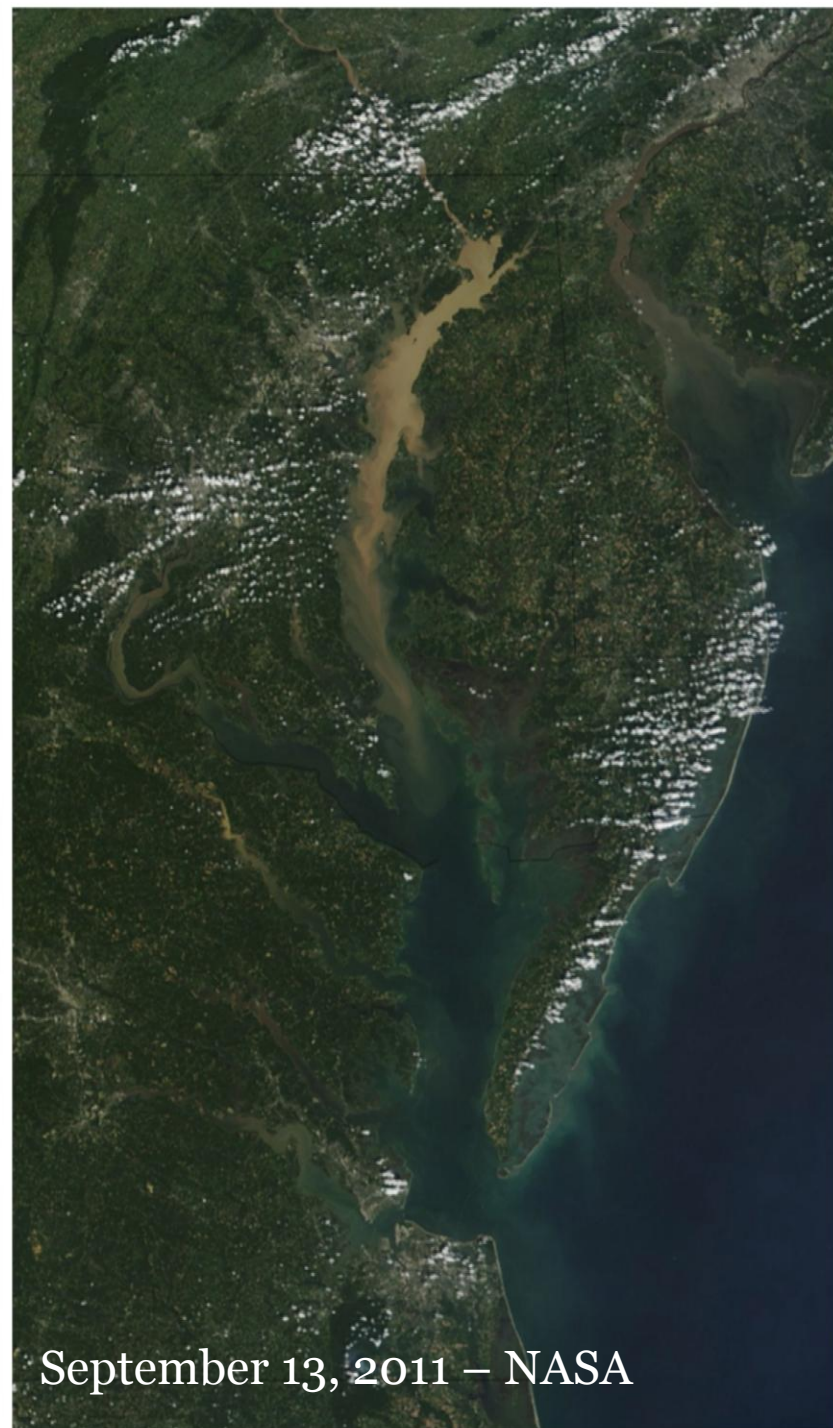


- MD, VA, DE , DC
- 185,000 acre Bay restoration goal





August 23, 2011 – NASA

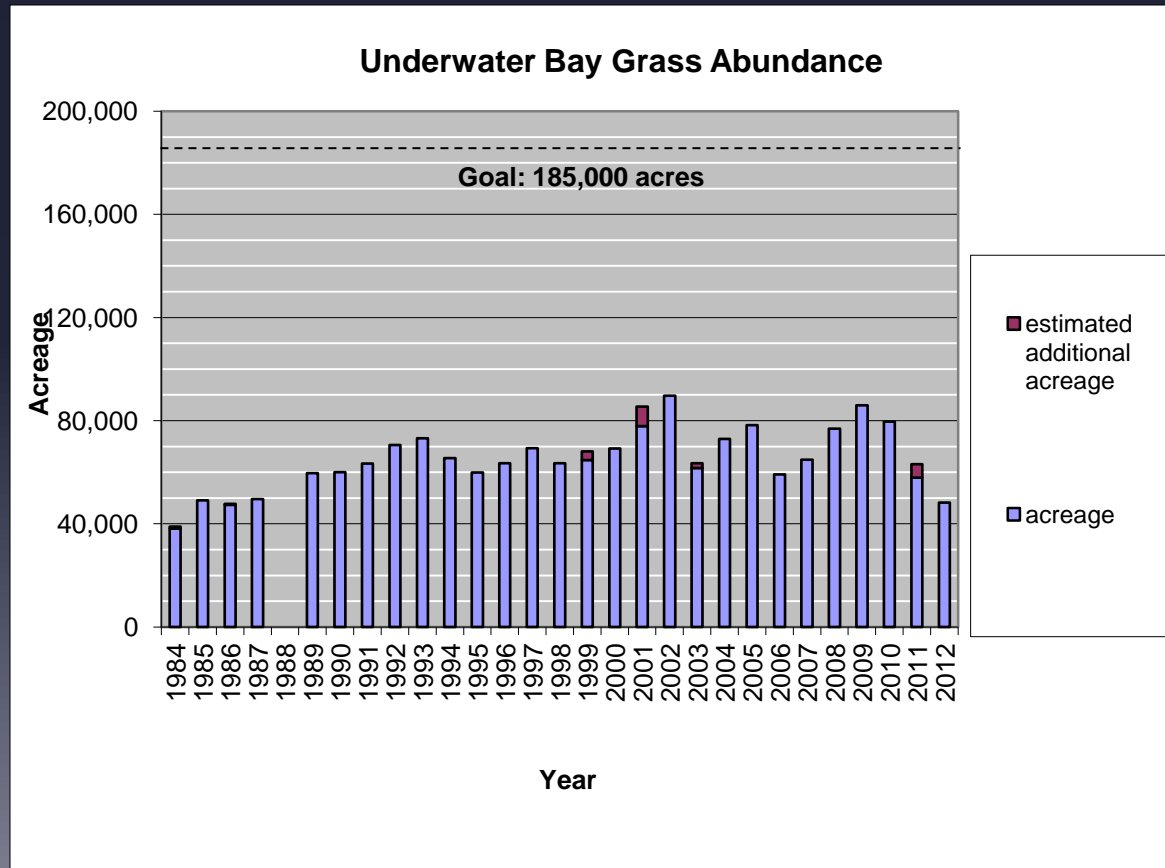


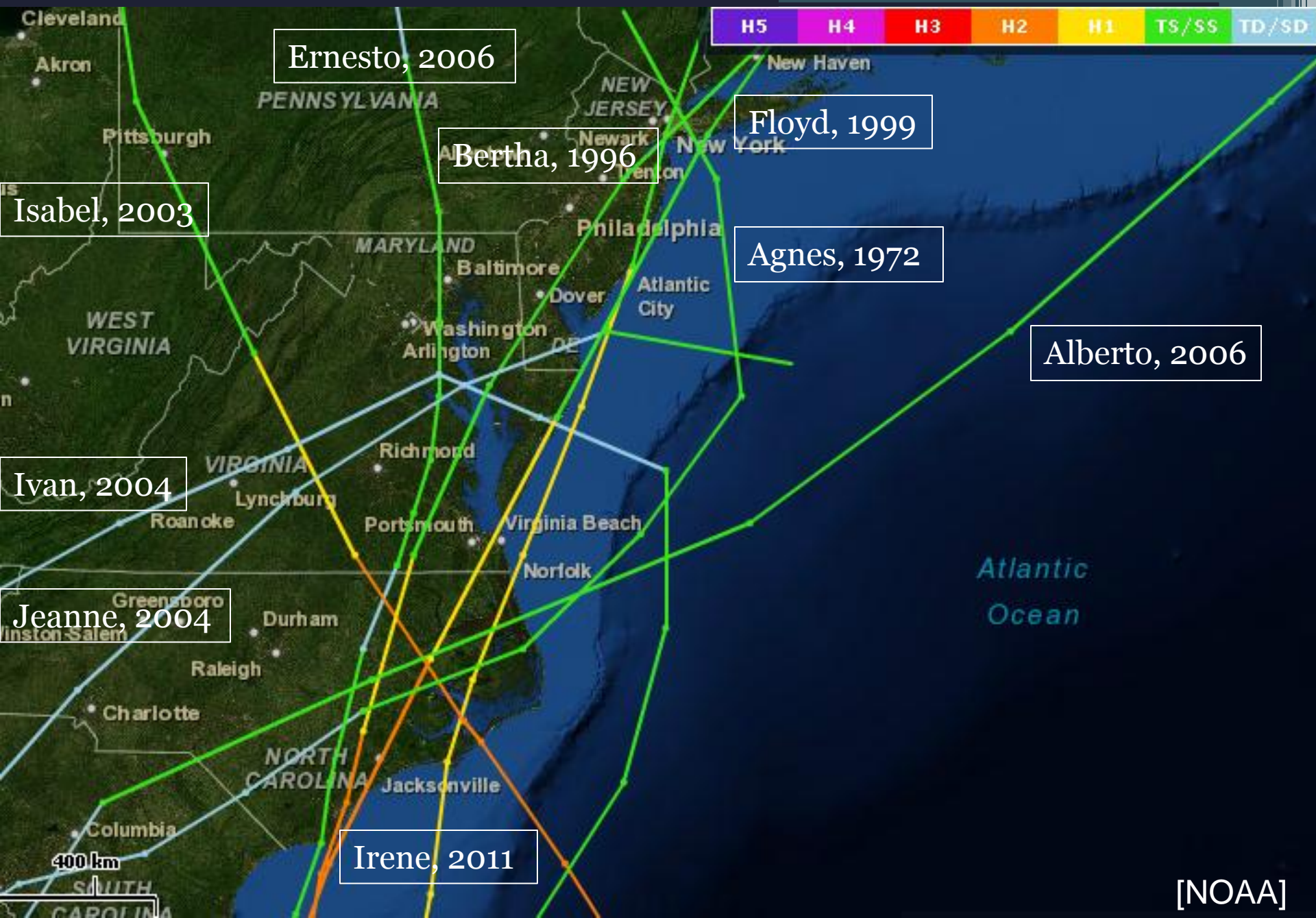
September 13, 2011 – NASA

SAV Aerial Survey



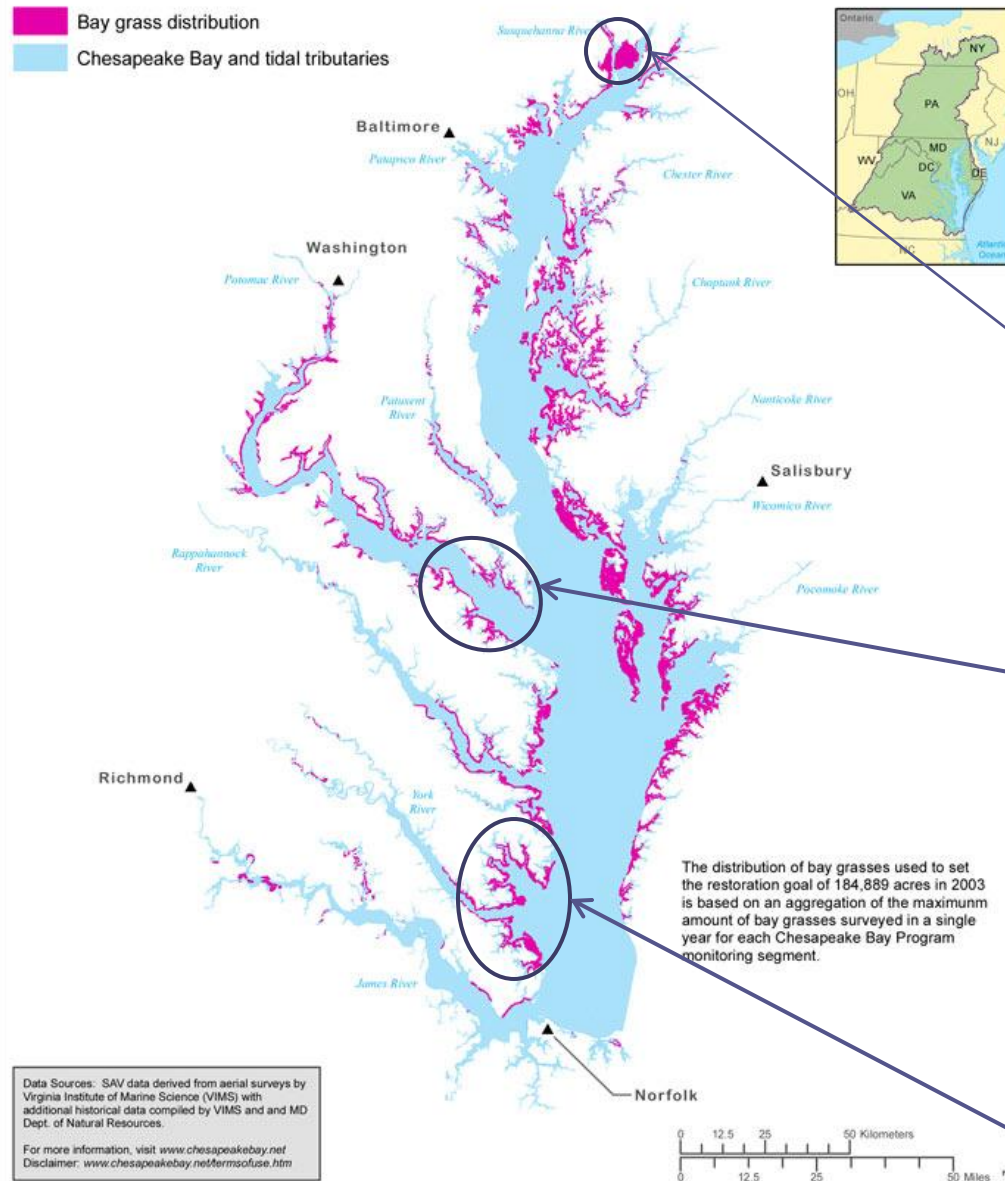
Baywide Progress of Shallow Water Bay Grasses Designated Use





Bay Grasses

Distribution Used to Set the Restoration Goal in 2003



Susquehanna
Flats (Tidal Fresh)

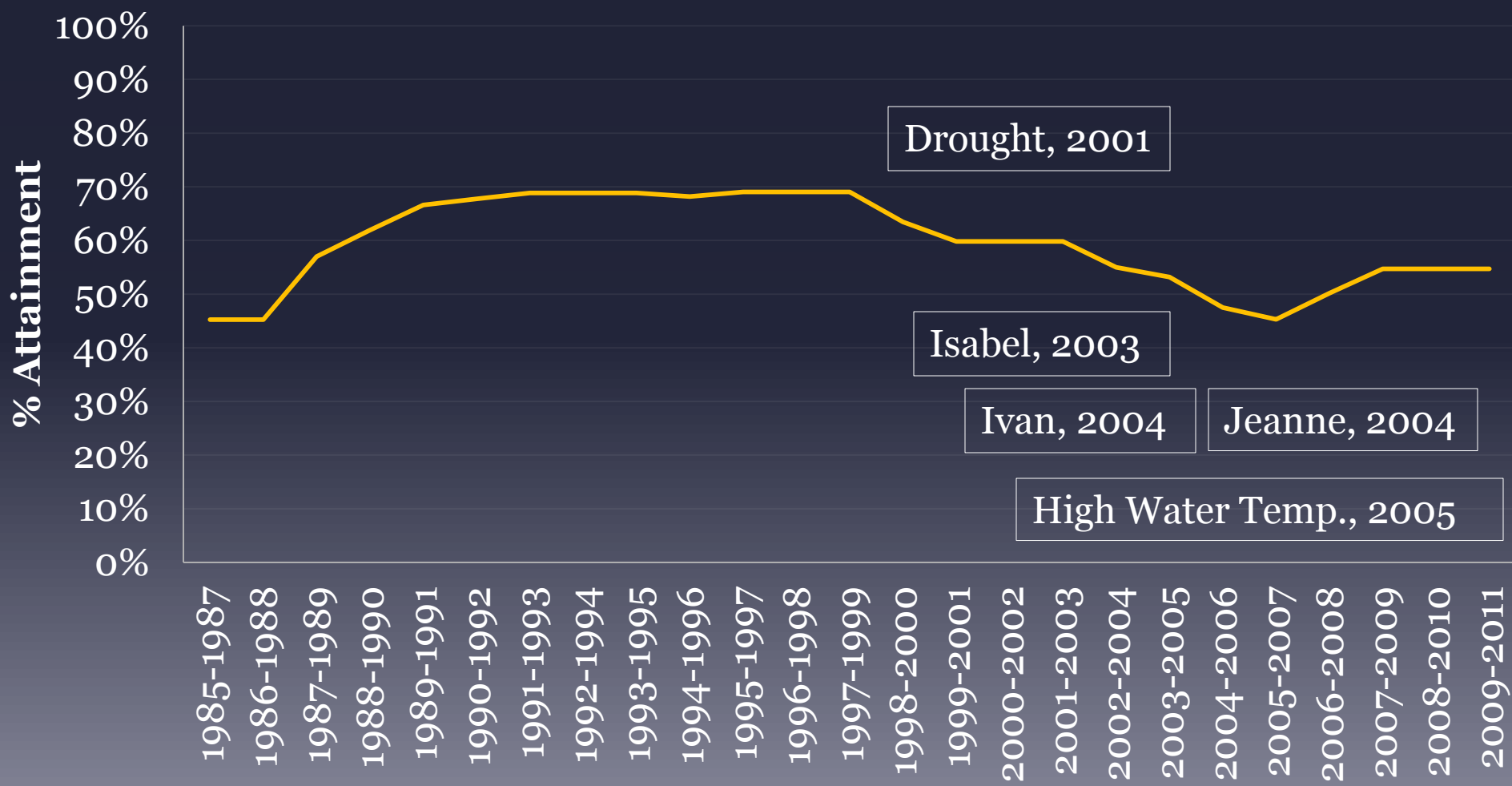
Virginia Portion
of the Lower
Potomac River
(Mesohaline)

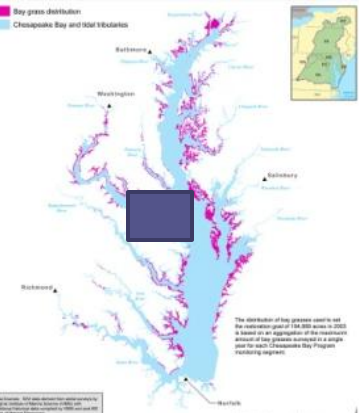
Lower Western
Shore (Polyhaline)



Lower Western Shore (VA)

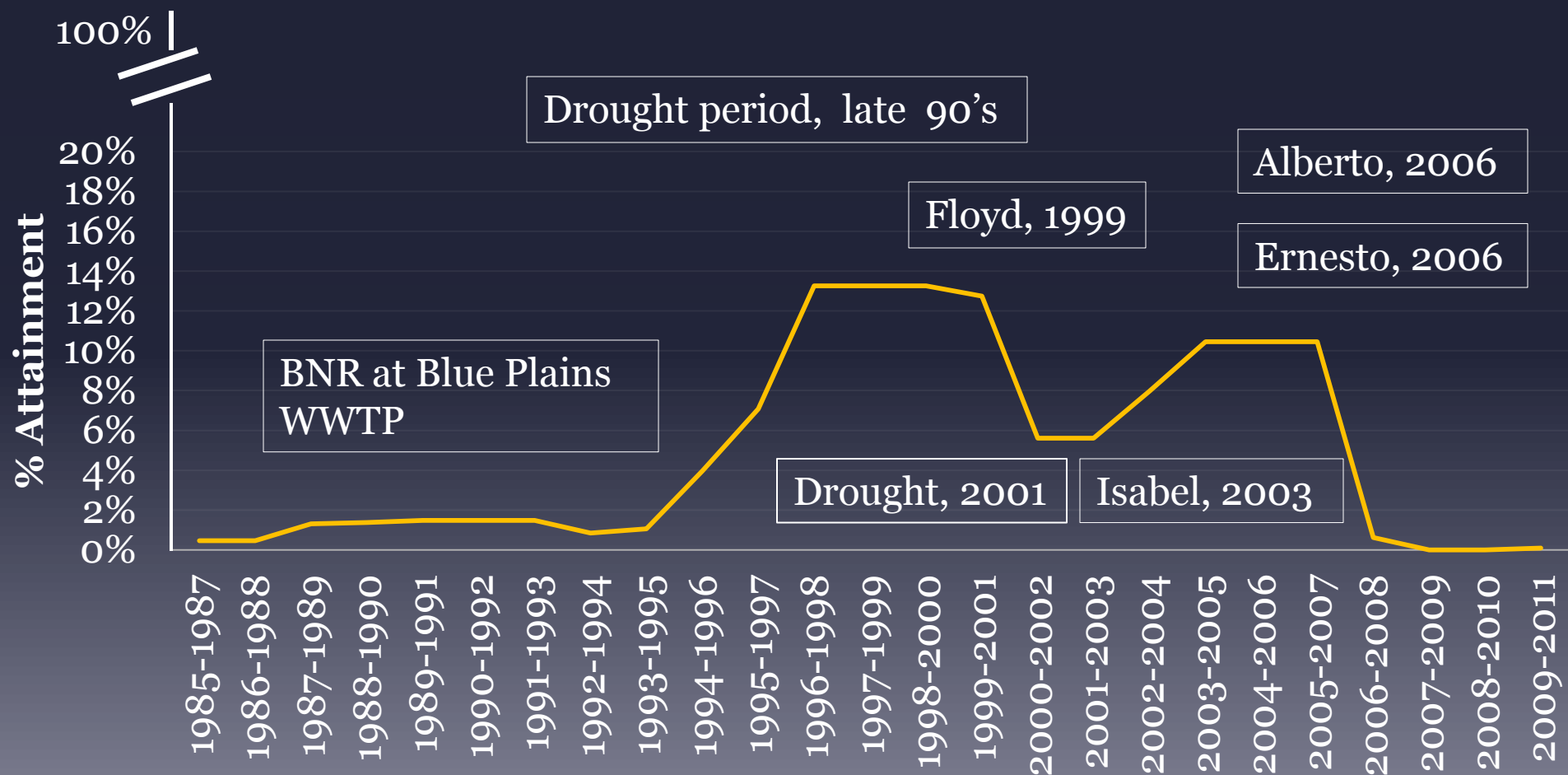
SAV Acreage Goal = 15,901 acres





Lower Potomac River (VA)

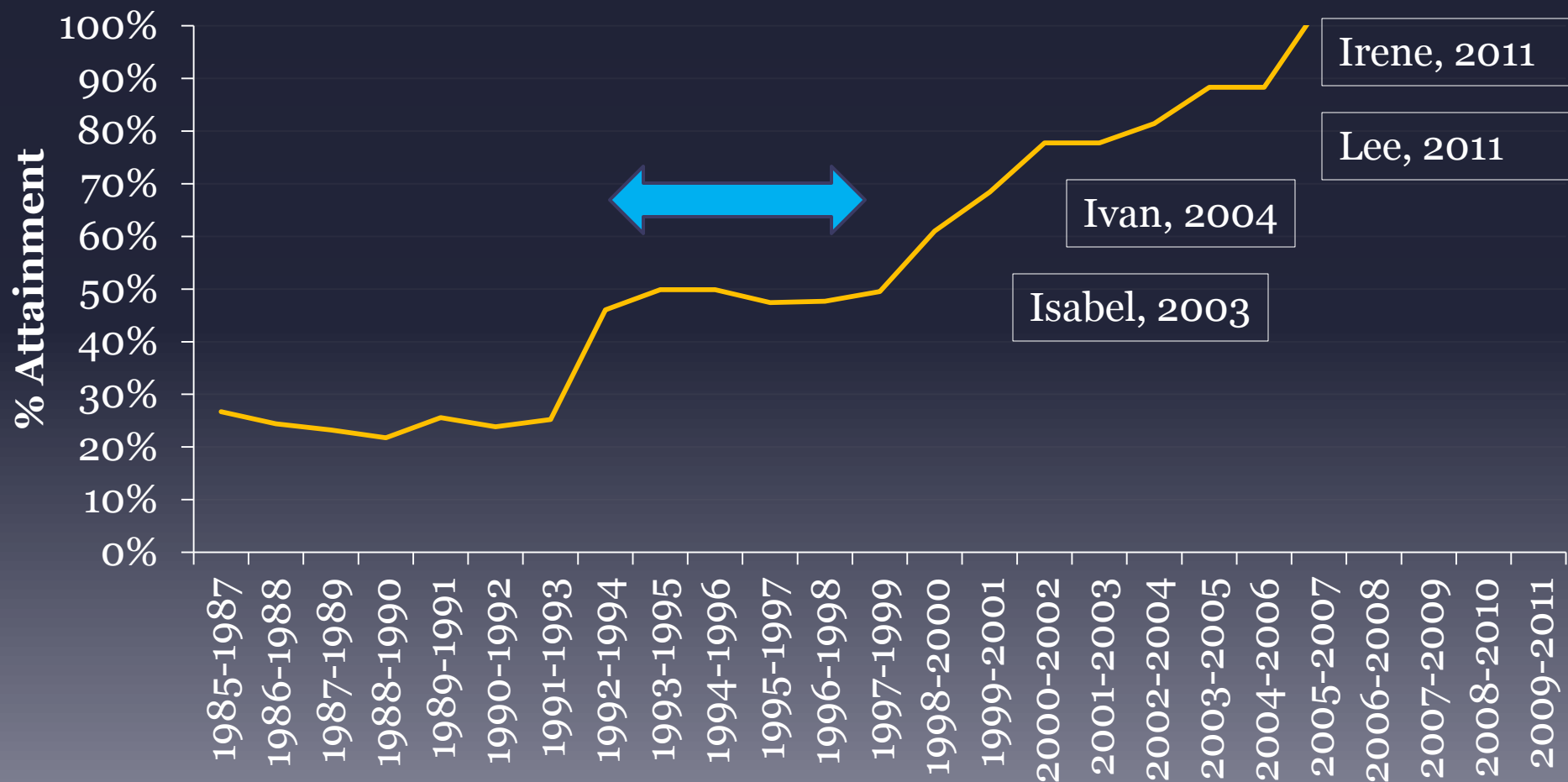
SAV Acreage Goal = 4,250 acres





Susquehanna Flats (MD)

SAV Acreage Goal = 12,903 acres



Conclusions

- Season
- Salinity
- Water Quality
- Climate Change

Next Steps...



Acknowledgements



University of Maryland
CENTER FOR ENVIRONMENTAL SCIENCE



Chesapeake Bay Program
A Watershed Partnership



VIRGINIA DEPARTMENT OF
ENVIRONMENTAL QUALITY

