

A Solution to Coastal Flooding: Regional Greenhouse Gas Initiative

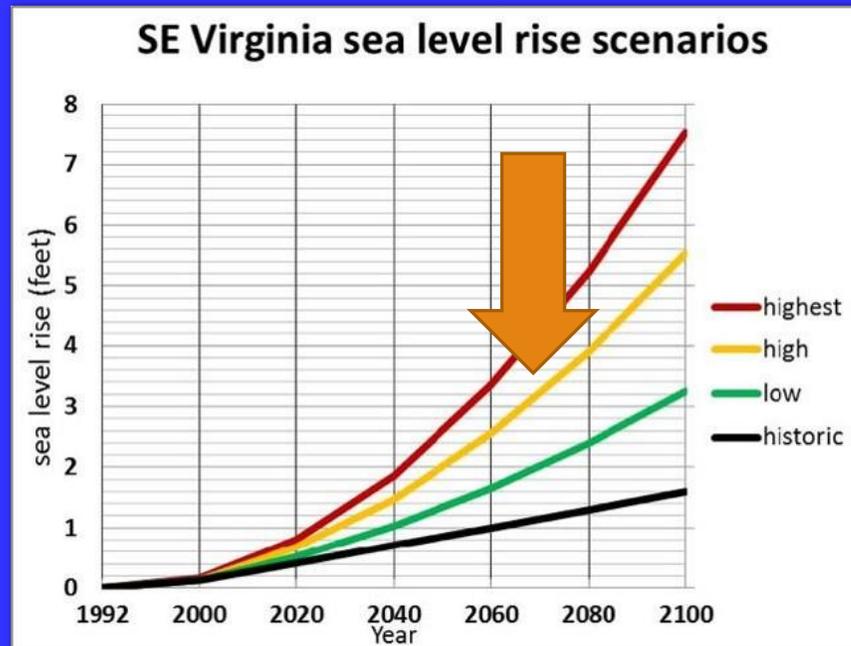
Delegate Ron Villanueva

Cities of Chesapeake (part) and Virginia Beach (part)

21st District

Why We're Here: Solutions for Coastal Flooding

Sea Level Rise Projections in Hampton Roads (VIMS)



Virginia's Past & Ongoing Efforts on Sea Level Rise

- Gov. Kaine Commission on Climate Change – Study & Recommendations (2007)
- VIMS Recurrent Flooding Study for Tidewater Virginia – Study (2013)
- General Assembly Recurrent Flooding Joint Subcommittee – Study & Recommendations (2013)
- Recurrent Flooding Sub-Panel of Secure Commonwealth Panel – Sea Level Rise – Recommendations (2014)
- Gov. McAuliffe Climate Change & Resiliency Update Commission – Study & Recommendations (2014)



VA Beach faces more than \$100 million in mitigation costs for repetitive loss properties (two paid flood losses of more than \$1,000 each in any 10-year period since 1978 - \$185,000 average cost of mitigation per home)

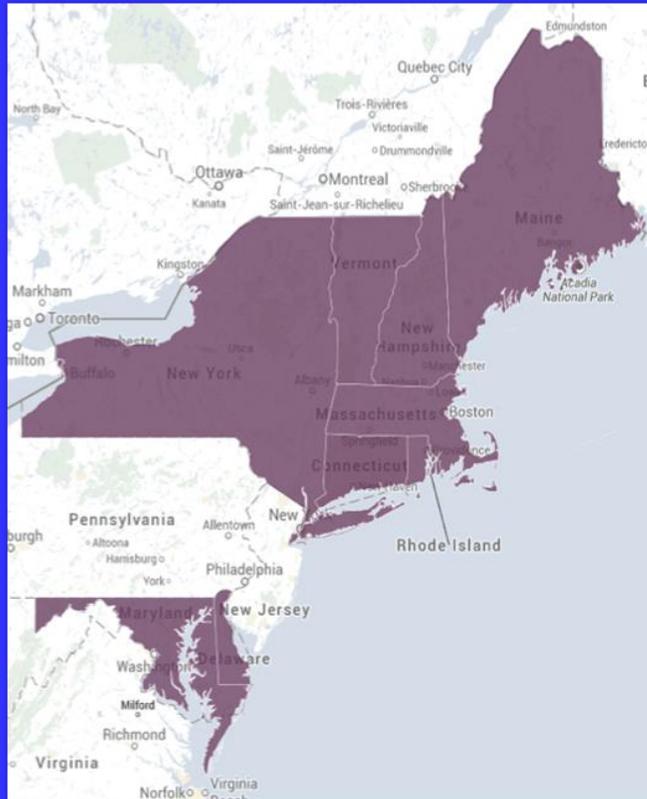
- *Since 2010, VA Beach received only \$725,000 annually from FEMA's Hazard Mitigation Assistance (HMA) program to cover insured repetitive loss properties*
- *Relying on FEMA assistance alone at current levels, it would take VA Beach 143 years to mitigate the city's 561 repetitive loss properties (Wetlands Watch Study – 2014)*

Regional Greenhouse Gas Initiative (RGGI)

Cap-and-Trade History

- 1980s: First proposed by Pres. Reagan to phase out lead gasoline
- 1989: Pres. George H.W. Bush used it to reduce sulfur dioxide emissions from power plants (Acid Rain Program)
- 2003 - Gov. Pataki (R – NY) proposed RGGI as **market-based solution** to carbon dioxide reductions
- 2005 – Pres. George W. Bush used it to further limit sulfur dioxide emissions from power plants

Current RGGI States



How RGGI Works

- Buy carbon allowance for every ton of CO₂ emitted
- RGGI sets region-wide cap; lowers it 2.5% annually
- Companies decide how to stay below cap
- Allowances sold at quarterly auction – returned to states for re-investments
- Projected roughly \$200 million in auction revenue annually through 2030 for Virginia
- Solution to EPA's Clean Power Plan

The Virginia Coastal Protection Act – Joining RGGI & Creating the Commonwealth Resilience Fund (Villanueva/McEachin)

\$100 million annually for sea level rise and flooding adaptation

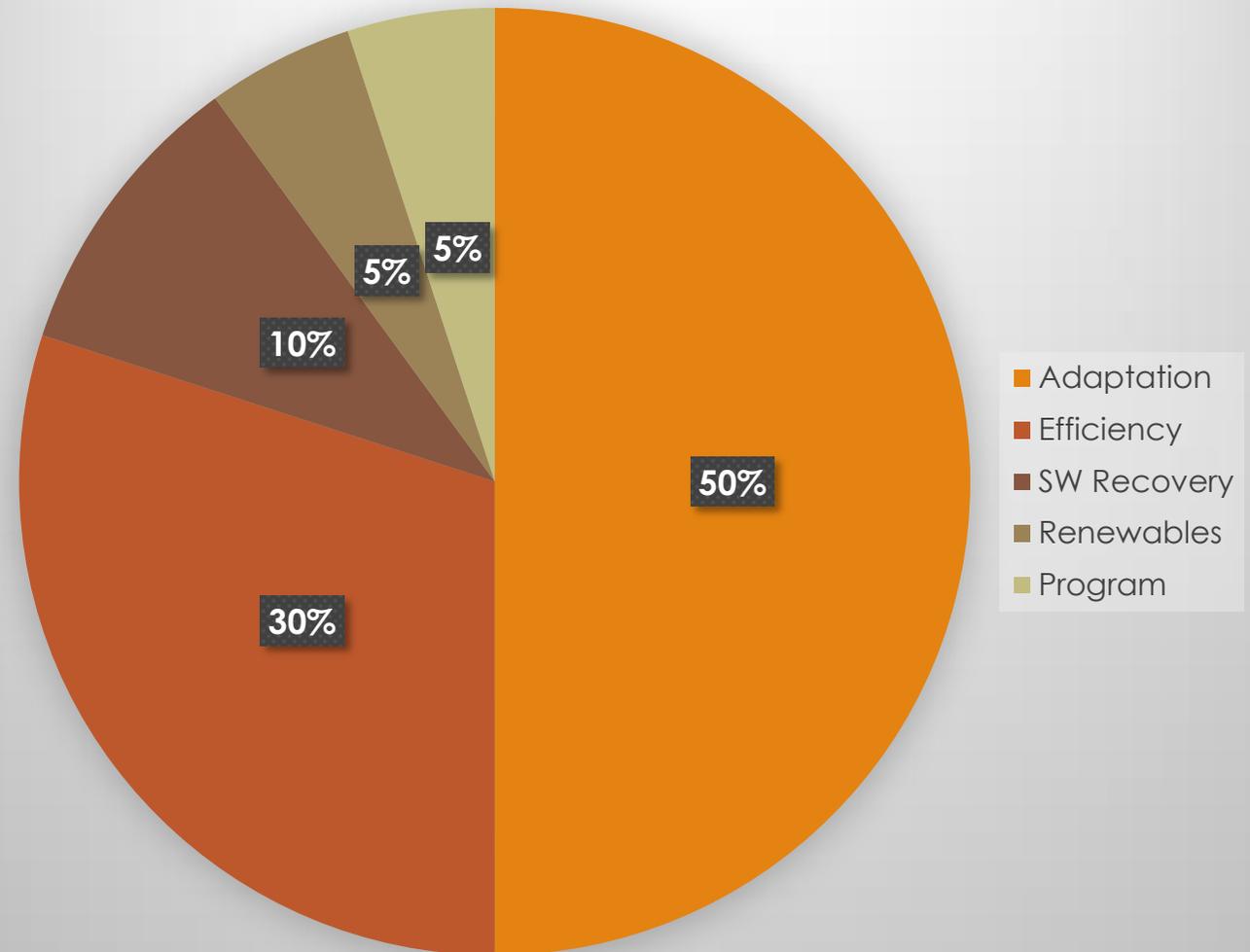
\$60 million annually for statewide energy efficiency programs – half to low-income residents (at no cost) and moderate-income residents

\$20 million annually for economic development in SW VA

\$10 million annually for statewide renewables

\$10 million for state programmatic expenses

Allocations



RGGI and the Clean Power Plan

- **What is the Clean Power Plan? (CPP)**
 - The EPA set targets for all states to reduce carbon dioxide emissions from power plants by 2030
- **What is the Regional Greenhouse Gas Initiative? (RGGI)**
 - RGGI is a multi-state effort to reduce CO2 pollution. Under the CPP, states have the option of going it alone, or by joining a regional effort like RGGI and reduce emissions across multiple states
- **Where is Virginia now? What are our goals under the CPP?**
 - **As of 2012**, the adjusted baseline year for the CPP, **Virginia's starting point is 27,365,439 short tons of CO2 emissions**. Accounting for any new demand growth and other additional increases in emissions, **Virginia must stay below an emissions goal of 27,735,010 short tons of CO2 by 2030**.
- **Why RGGI to meet the CPP?**
 - The ability to trade allowances and combine emissions goals with other states creates flexibility in meeting state targets. Plus, auction revenues generated by RGGI provides key resources for states that could be used to find solutions to state priorities, like the cost of flooding in Hampton Roads

RGGI Results

○ RGGI Works

- Since the program's inception in 2008, **RGGI states cut CO2 pollution nearly 3x faster** than non-RGGI states (Acadia Center – July 2015 Report)

○ RGGI Creates Jobs

- From 2012 – 2014, RGGI led to **\$1.3 billion in net positive economic activity** throughout the nine-state region (Analysis Group – July 2015 Report)

○ RGGI Reduces Bills

- From 2012 – 2014, **RGGI led to \$460 million in total consumer savings** by way of bill reductions in the nine-state region. (Analysis Group – July 2015 Report)

○ RGGI Provides Certainty

- **The nine RGGI states represent 25% of the U.S. population.** RGGI has operated for more than six years leading to positive results. In the age of uncertainty over the CPP, RGGI proves cutting emissions in a multi-state effort can be achieved while providing benefits for the economy and the consumer

More on RGGI

Common Objections

- RGGI will increase rates
- RGGI will increase bills
- RGGI will kill jobs

The Facts

- Since 2008, electricity rates in RGGI states declined 2% while rates in rest of nation increased 13% (Acadia Center – July '15)
- Average electricity bill in RGGI states is \$108.43 vs. \$111.08 nationally and \$125.36 in Virginia (U.S. EIA)
- Since 2008, RGGI states experienced 3% more economic growth over non-RGGI states (Acadia Center – July '15); all nine states showed net job growth (Analysis Group – July '15)

Statewide Support

- **Editorial Board Endorsements of Virginia Joining RGGI**

- Richmond Times-Dispatch (8/4/15)
- The Virginian-Pilot (2/5/15)
- The Washington Post (1/26/15 and 2/22/15)

- **City Councils Passing Resolutions**

- City of Norfolk (January 2015)
- City of Charlottesville (July 2015)
- **Request City of Virginia Beach (September 2015)**

(note: while the Virginia Coastal Protection Act failed to pass the 2015 General Assembly, it remains the only solution that provides the resources localities need for adequate flood protection)

THE POWER OF COASTAL PROTECTION

How Adaptation Funds Can Support Tidewater VA



ENGINEERING	FINANCE	CONSTRUCTION	INSURANCE	SCIENCE
EMPLOYS LOCAL WORKERS WITH LONG TERM CONSTRUCTION PROJECTS	REINVESTS FUNDS TO FINANCE ADDITIONAL FLOODING SOLUTIONS	ENHANCES LOCAL BUSINESSES WITH SALES FROM CONSTRUCTION EQUIPMENT AND SUPPLIES	SAVES LOCAL ECONOMIES FROM FUTURE FLOOD LOSSES THROUGH INFRASTRUCTURE IMPROVEMENTS	ADVANCES RESILIENCY INITIATIVES TO PROTECT FROM SALTWATER INTRUSION AND EROSION

\$431 million reinvested in adaptation efforts would create at least 9,200 jobs, from construction to design to engineering to finance.¹

¹Stiles, William et. al. The Challenge of Mitigating Virginia's Flooding and Sea Level Rise Impacts. Wetlands Watch. November 2014.

Questions?

The Virginia Coastal Protection Act – Commonwealth Resilience Fund