

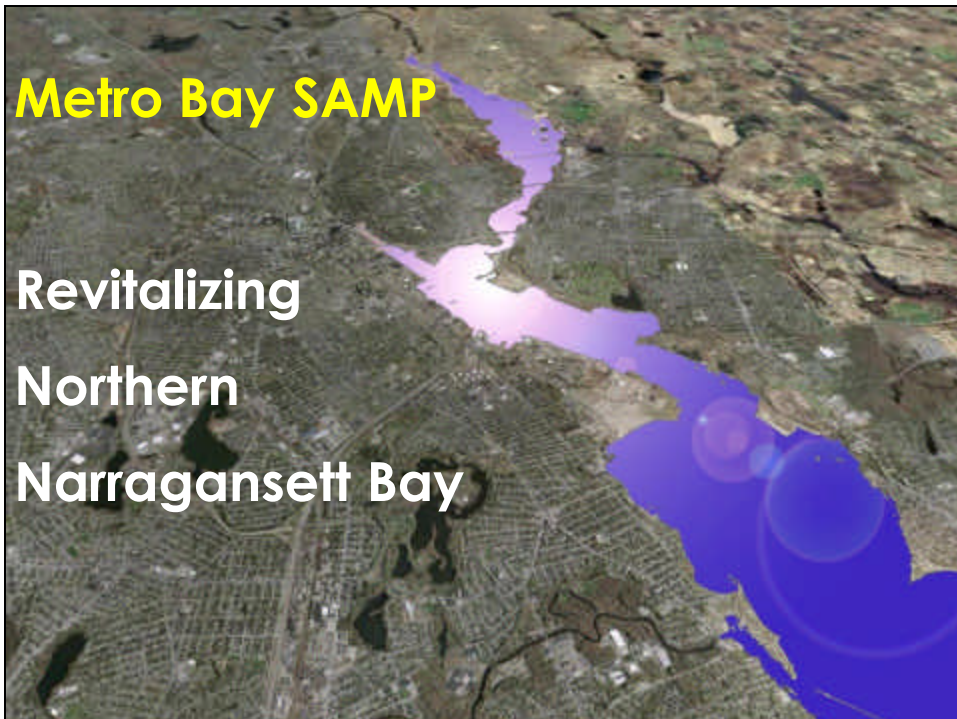
# Increasing Resilience along Rhode Island's Coast

Pam Rubinoff, URI Coastal Resources Center/RI Sea Grant



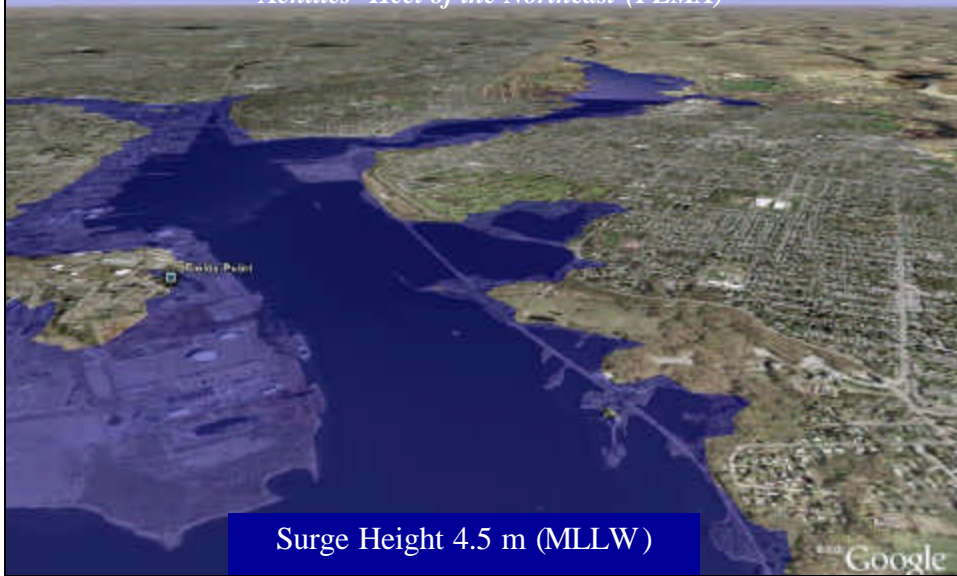
## Metro Bay SAMP

Revitalizing  
Northern  
Narragansett Bay



## Increase preparedness and reduce the impact of natural hazards

*Achilles' Heel of the Northeast (FEMA)*



**In a Cat 3 Hurricane – nothing is left!**





## Point Street Bridge – 1938 Hurricane

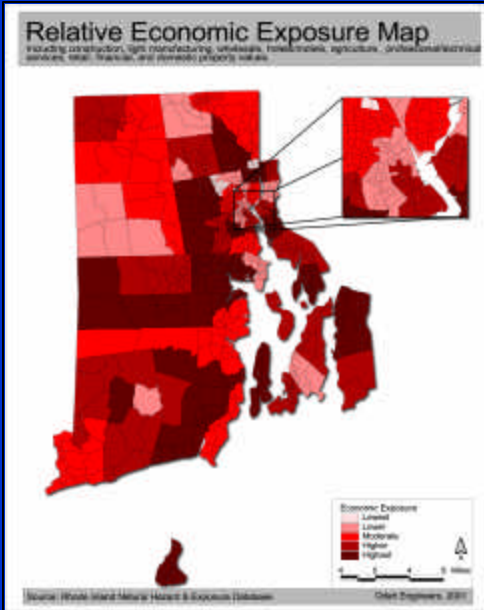
Providence Journal



## Fox Point Hurricane Barrier



# Direct Economic Losses



RIEMA, 2005

## Capitol Stock Losses

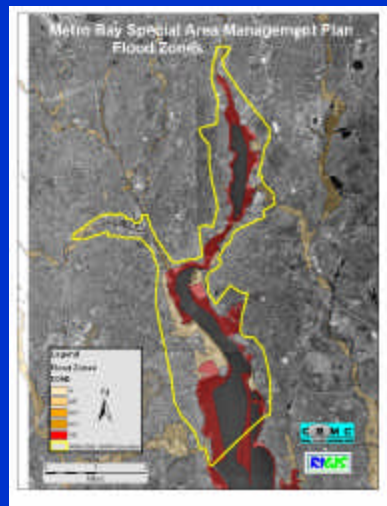
Providence	\$1.3 million
Washington	\$1.0 million
Kent	\$ 657,911
Newport	\$ 189,108
Bristol	\$ 97,008

## Business Interruption

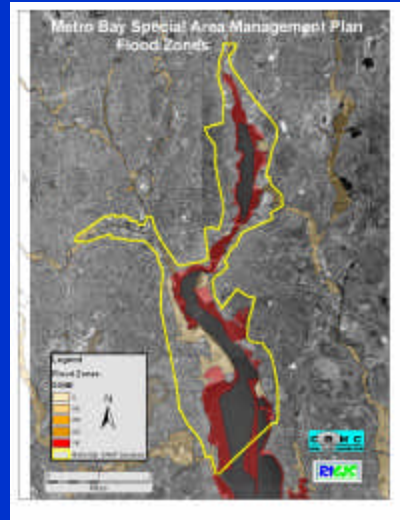
Providence	\$1.5 million
Washington	\$1.2 million
Kent	\$ 764,000
Newport	\$ 219,000
Bristol	\$ 110,000

# Hazards Issue Paper Draft

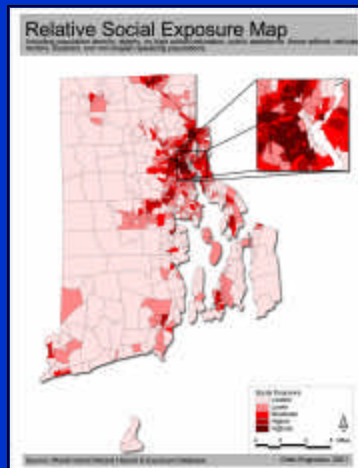
- *History*
- *Current Risks, Knowledge, Planning*
- *Changes in the floodplain*
- *Floodplain issues*
- *Best Practices*
- *Proposed Actions*



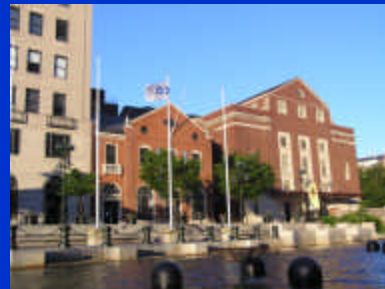
## 1. Expansion of the floodplain due to fill, infill, sea level rise, runoff & shoreline change



## 2. Increased flooding impacts from additional infrastructure and populations in the floodplain



- 175 businesses are in the existing floodplain
- \$400 million to \$1.6 billion assessed land and property assessed in the floodplain



### 3. Increased *impacts to recreational marine facilities and people*



**Raging Blackstone River ravages boat landings**

### 4. Impact of existing and potential *shoreline debris* during a storm event

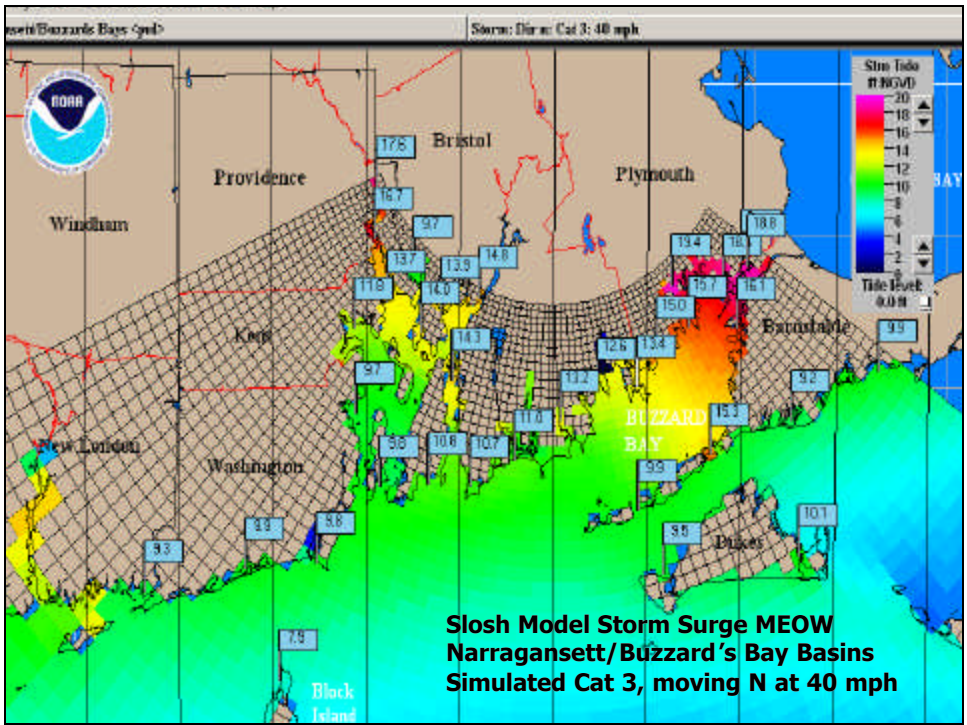
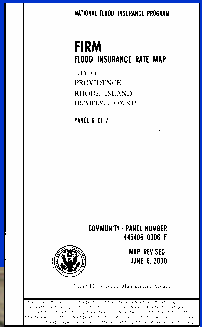


#### Debris Tonnage Amounts

Washington Cty	2.2 million tons
Providence	1 million tons
Kent	600,000 tons
Newport	548,000 tons
Bristol	111,000 tons

RIEMA, 2005

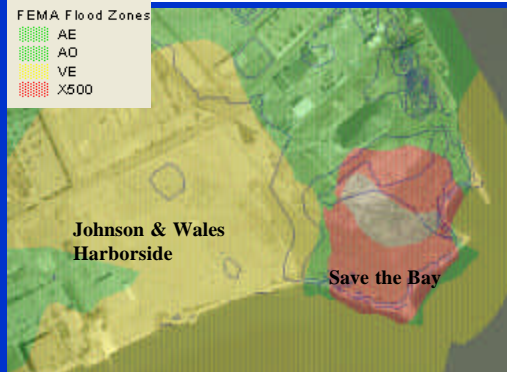
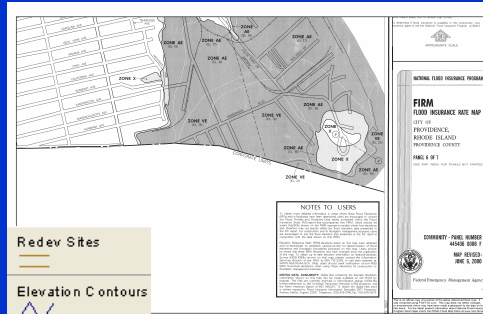
# 5. Lack of a regional hydrodynamic model to predict the extent of flooding and potential impacts



## 6. Capacity of local/state government to implement mitigation plans and respond to flood events

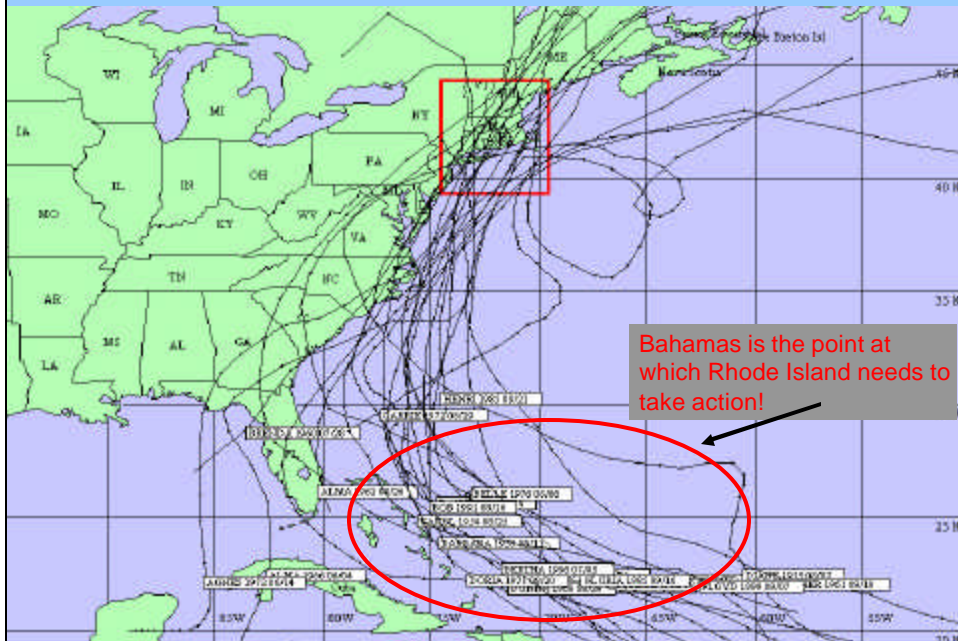


## Fields Point Redevelopment “Providence”





## Tropical Cyclones Impacting New England



## Proposed Actions in Metro Bay

- Adopt more stringent building standards, flood ordinances beyond the minimum standards
- Develop scenarios for coastal hazards based on accurate models to guide decision-makers and the public in siting and design of development.
- Enhance public education targeted to developers, engineers, small businesses, banks, home owners
- Coordinate all aspects of floodplain management across the Metro Bay region.

*For More information*

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