



Presentation to the Hampton Roads Chapter of ASPA (September 20, 2018)

- ◆ Wie Yusuf (jyusuf@odu.edu)
- ◆ Steering Committee Chair, ODU Resilience Collaborative

- ◆ University-wide and multi-disciplinary
- ◆ Actively engaged

**RESEARCH
EDUCATION
OUTREACH**

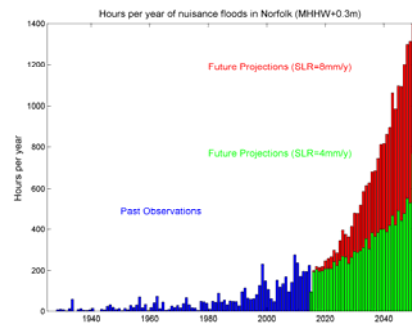
- ◆ Critical issues for resilience
- ◆ Community, regional, national, and global levels



ODU-RC Research Priority Areas



- ◆ Coastal science and engineering
- ◆ Critical infrastructure resilience
- ◆ Flooding resilience
- ◆ Urban resilience



Source: Tal Ezer, ODU Center for Coastal & Physical Oceanography (<http://www.ccpo.odu.edu/~tezer/>)

Research Seed Funds



- ◆ Evaluating Unmanned Aerial Vehicles (UAVs) for Monitoring Coastal Change and Mapping Recurrent Flooding
- ◆ Non-Profit Arts Organizations' Contribution to Community Resilience Building in Flood Prone Areas
- ◆ Family Flood Communication: Resiliency Fostered through Family Talks, Communal Identity, and Memorable Messages
- ◆ Sea Level Rise, Flooding, and Radioactive Sources
- ◆ The Effects of Nature-based Coastal Measures in Storm Damage Mitigation



Graduate Student Spotlight: Kaitlin Giles, MPA (2017)



- ◆ Interned with the Virginia Climate Adaptation and Resilience program (joint ODU and Virginia Sea Grant program)
- ◆ Created the 'Virginia Homeowner's Handbook for Natural Hazards' to provide information on
 - Natural hazards (hurricanes, nor'easters, floods, tornadoes) and
 - preparation, mitigation, evacuation, insurance, recovery, etc.
- ◆ <https://sites.wp.odu.edu/VAHH/>



Graduate Student Spotlight: Donta Council, PhD student



- ◆ Third year PhD student in public administration and policy (School of Public Service)
- ◆ Summer research project: Analysis of vulnerability, preparedness, and adaptation of low- to moderate- income households in Portsmouth
 - Focus on self-efficacy, trusted sources of information, challenges to adaptation



ODU-RC Research Repository



◆ Learn more about faculty and student research:
<http://digitalcommons.odu.edu/odurc/>

◆ Examples:

- Stakeholder engagement
- Vulnerable population
- SLR modeling
- Tourism
- Green infrastructure
- Risk analysis
- Risk communication



Tourism Business Resilience



- ◆ Assessment of resilience of the Virginia Beach Oceanfront tourism industry
- ◆ Workshops in Virginia Beach and Williamsburg to help organizations assess their resilience and provide tools to increase their resilience and continuity of operations



- ◆ On-line self-assessment tool for tourism organizations to supplement the workshops bit.ly/tourism_resilience

University-Community Partnerships to Build Community Coastal Resilience Program



- ◆ Joint ODU-RC and Virginia Sea Grant program to build capacity for collaborative community-university projects that enhance resilience in coastal communities
- ◆ Focus on connecting community organizations with university resources through service learning projects
- ◆ bit.ly/res_pship

Building University-Community Partnerships for Resilience NETWORKING EVENT

Date: Friday, June 2nd 2017
Time: 9-11 am
Location: Cape Charles/Isle of Wight Room, 2nd floor ODU Webb Center

Building Community Resilience

Sponsored by:

- University-Community Partnership for Resilience
- ODU Resilience Collaborative
- Center for Regional Excellence
- Virginia Sea Grant

Action-oriented Stakeholder Engagement for a Resilient Tomorrow (ASERT)



- ◆ How can we effectively engage residents and stakeholders in planning for flooding and sea level rise?
- ◆ Change the Approach - Gamify engagement
- ◆ Minimize conflict by reducing opportunity to 'argue'
 - Focus on doing, not talking
 - Interactive activities that bring people together
- ◆ Encourage learning and action
 - Rewards and incentives
- ◆ Make connections within and across groups
 - Competition
 - Sharing



ASERT in Practice



- ◆ Pilot-tested ASERT in Little Creek/Pretty Lake neighborhoods in Norfolk and Virginia Beach (Spring 2016)



- ◆ Partnered with City of Virginia Beach to use ASERT to support the city's Comprehensive Sea Level Rise and Recurrent Flooding Response planning process

Goals of VB ASERT




- ◆ Inclusive and engaging process to allow residents to participate in the resilience efforts
- ◆ Environment that encourages social learning to promote behavioral change
- ◆ Allow residents to give real-time perceptions of risk and feedback about resilience activities in Virginia Beach
- ◆ Collect data on residents' risk perceptions and levels of knowledge and preparedness

Flood Resilience Game Nights



- ◆ Five stations where residents participate in activities and earn stamps on a game card (passport)
 - Check-in and passport
 - Tolerance for flooding
 - Preferences for adaptation actions
 - Participatory mapping
 - Travel disruptions
 - Community assets and challenges
- ◆ Seven 'game nights' and one city-wide 'fun afternoon'
- ◆ Attended by 10-50 people each



Flood Tolerance





Adaptation Actions



weTable




Travel Disruption



What Did We Learn? Appealing to Wider Audience

- ◆ Still need to appeal to a wider audience of residents
 - How to engage younger residents and younger families?
 - Fun Afternoon - Saturday 2-4pm, Public Library
 - Screening of film 'Tidewater'
 - 12 participants (2 with young children)
 - Resonance, relevance for different audiences?

Flood Resilience 'Fun Afternoon' & Interactive Community Event

Where: Virginia Beach Central Library
 When: Saturday, March 24, 2018 starting at 1:30 p.m. (until 4 p.m.)
 Showing of the film 'Tidewater: Water Is Rising, Land Is Sinking, and the Military Is Here to Stay' @ 2 pm
(with introductions by Hon. Admiral (Ret.) Alex Phillips)



- Come out to this family friendly event - Be part of the process for long-term resiliency planning for Virginia Beach.
- Information you provide will help the city and engineers understand what the public feels is important about existing flood risk, possible changes in the future, and possible flood risk management and adaptation options.

This film explores the challenge of sea level rise in the Tidewater region of Virginia and North Carolina, surrounding Roanoke Bay, against the region's historic vulnerability to sea level rise and coastal erosion. Directed and produced by Roger Smith and the American Resilience Project. See you and the film: www.resilienceproject.org

- Participate in interactive activities:
- Mapping and understanding risks
 - Assessing vulnerability and tolerances to flooding
 - Adaptation and flood proofing options
- WIN PRIZES FOR PARTICIPATING!**

Sponsored by: City of Virginia Beach, Public Works Engineering, and the ODU Resilience Collaborative

What Did We Learn? Anecdotal Evidence



- ◆ Still need to appeal to a wider audience of residents
 - How to engage younger residents and younger families?
- ◆ Gamified environment diffused some tensions
- ◆ Saw sharing, social interaction, exchange of information
 - Required significant staff to host event
- ◆ Significant co-creation of knowledge
 - Identified 300+ regional assets and challenges
 - Information about preferences for adaptation solutions

Hampton Roads Adaptation Forum



- ◆ Quarterly forums to facilitate regional coordination, exchange of information and sharing of adaptation best practices



- ◆ Presentations of up-to-date research on flooding, sea level rise, adaptation
 - ◆ Dialogue and networking between information providers and users
- ◆ <https://sites.wp.odu.edu/HRAdaptationForum/>
 - ◆ Studying the forums as a regional, multi-sectoral, whole-of-government, and multi-disciplinary knowledge system



The image contains two main visual elements. On the left is a dark blue square logo with a white crown icon at the top, the letters 'ODU' in a large, bold, white serif font in the center, and the words 'Resilience Collaborative' in a smaller white sans-serif font below a thin white horizontal line. On the right is a photograph of a stone lion statue, shown in profile facing left, with its mouth open as if roaring. The background of the photo shows a building and trees with autumn foliage.

Questions?

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- ◆ Steering Committee Chair, ODU Resilience Collaborative