

Virginia Sea Grant College Program

Coastal Resiliency Projects

Virginia Sea Grant (VASG) is a university-based, state-federal partnership program that conducts and funds integrated research, communication, education and outreach programs that advance the health of coastal and marine ecosystems and the communities that depend upon them. VASG is federally funded through the National Oceanic & Atmospheric Administration (NOAA), headquartered at the Virginia Institute of Marine Science (VIMS) at William & Mary, and composed of Virginia Tech, University of Virginia, Old Dominion University, Virginia Commonwealth University and George Mason University.

CORE VASG CAPACITY: ON-GOING ACTIVITIES

Stakeholder Engagement, Risk Communication: VASG@Old Dominion University (ODU)

VASG and ODU are co-funding a faculty of practice in climate change adaptation and resilience. Dr. Michelle Covi (mcovi@odu.edu) is an expert in stakeholder engagement, risk perceptions and communication, and community vulnerability. She started in January 2014 and is conducting several activities, predominantly in the Hampton Roads region, although Michelle is active on the Eastern Shore and Middle Peninsula as well. A sample of high profile projects include:

- **Hampton Roads Adaptation Forum**. These on-going quarterly meetings provide local government stakeholders and others the latest research and resources to facilitate and coordinate resilience efforts. Aimed at identifying needs and promoting exchange of information, lessons learned and tips, the Forum has met nine times since 2012. It is being considered for replication in Charleston, SC and in a recent survey, 83% of attendees said that they have made and followed-up on new professional contacts from their participation in the Forum.
- **Intergovernmental Pilot Project, Citizen Engagement Working Group**, co-chair. Dr. Covi is developing an engagement template for the Intergovernmental Pilot and assists with several projects that inform the work of the group. The Pilot Project seeks to develop a regional “whole of government” and “whole of community” approach to sea level rise (SLR) preparedness and resilience planning in Hampton Roads. See: <http://www.centerforsealevelrise.org/>
- **Resilient Region Reality Check**. Dr. Covi partnered with the Hampton Roads Urban Land Institute to sponsor an engagement event that solicited perceptions and priorities from a cross section of regional stakeholders and citizens.
- **Trainings and workshops**, e.g.: Middle Peninsula real estate agents; community social vulnerability in Newport News/Hampton. Often conducted with Virginia Coastal Policy Center.

Legal & Policy Analysis: VASG @ W&M Law. Virginia Coastal Policy Center (VCPC)

VASG and the William & Mary Law School, along with the VIMS, have partnered to establish the VCPC, a legal and policy analysis program serving coastal Virginia, predominantly on issues of SLR, resilience, and adaptation. Launched in 2013, VCPC hired its Director, Roy Hoagland (rahoagland@wm.edu) in the fall 2014. VCPC has been active on several critical resilience issues, e.g.:

- **Policy Clinic**. Every semester up to ten second and third year law students, led by Roy Hoagland, work with VIMS scientists and coastal community clients to assess challenging coastal zone management and water quality issues. A list of final reports and white papers can be found at <http://law.wm.edu/academics/programs/jd/electives/clinics/vacoastal/reports/index.php>, and has included topics on state and local liability and flooding, flood insurance rates, social vulnerability, Virginia’s Dillon rule and SLR, and other relevant resilience issues.
- **Annual Conference**. VCPC hosts an annual conference for local governments and coastal stakeholders to discuss legal and policy issues related to SLR, flooding, adaptation, resilience and other critical climate change issues. The 2014 conference included participation from U.S.



Senator Tim Kaine, and a formal meeting of the Governor's Climate Change and Resiliency Update Commission. Agenda's, speakers, slides can be view at:

<http://law.wm.edu/academics/programs/jd/electives/clinics/vacoastal/conferences/index.php>

- Intergovernmental Pilot Project, Legal Working Group, chair. Mr. Hoagland assembled and leads a team of law professionals exploring the barriers to intergovernmental collaboration and the Working Group has advised on the development of the Pilot Charter.

<http://www.centerforsealevelrise.org/about-the-center-for-sea-level-rise/legal-working-group/>

CURRENT INITIATIVES: EMERGING ACTIVITIES THAT ARE BUILDING CAPACITY:

Resiliency Design: Chesterfield Heights, Norfolk

VASG's Resiliency Design project in the Chesterfield Heights community of Norfolk linked architecture and engineering faculty and students at Hampton University and ODU, with professional engineers (Hampton Roads Green Building Council), Hampton Roads Planning District Commission, VIMS, and a local environmental NGO to expand design options for a lower to middle income, minority, urban, historic residential community. The project, conducted in 2014-2015, developed adaptation responses that would protect and expand ecosystem services while also protecting people, property and culture of waterfront communities. The adaptation options consisted of a comprehensive set of decentralized and centralized, green and gray infrastructure strategies that, if they had been in place, would have prevented 90% of the flooding Chesterfield Heights experienced from the 2009 Nor'easter Ida, according to a U.S.EPA Storm Water Management Model (SWMM) analysis. The plans are being included in Virginia's Phase II HUD Resiliency competition grant application and were the focus of a 2015 Dutch Dialogue workshop. Funding proposals have been submitted to replicate the project in Newport News and Hampton, and integrate legal analysis and finance strategy development into the designs. The Hampton University – ODU team is currently conducting a resiliency design project in the Hague neighborhood of Norfolk. Point of contact: Troy Hartley, thartley@vims.edu.

New University-Community Partnership Models: Waterfront Property Reuse Planning

VASG has been working with the Middle Peninsula Planning District Commission (MPPDC) on the planning, experimentation, and refinement of a new university-community partnership model that leverages university capacity to solve intractable problems in a rural, coastal economy. With an emphasis on the socioeconomic and adaptation dimensions of coastal resiliency, VASG has been using practicum and capstone courses in graduate schools of planning, policy and law to mobilize faculty-student teams to work on client-driven projects. We secured a planning grants from the Community Development Block Grant program and studied models of university-community partnerships nation-wide, developed program designs applicable to VASG's six-university partnership organizational structure, and identified and prioritized community projects. A sample project completed in 2015 included:

- Waterfront Property Reuse Planning study, Virginia Commonwealth University (VCU). In 2014 – 2015 the VCU Center for Urban and Regional Analysis employed five graduate courses in the fall 2014 and a faculty-grad student team in spring 2015 semester to study and develop a reuse plan on a 100-acre, waterfront property (Captain Sinclair) that had been donated to the Middle Peninsula Public Access Authority. The final Captain Sinclair's Recreation Area Plan was built from environment, land use, and economic research and a comprehensive public participation process. The plan is comprised of both a passive reuse scheme (low-impact, low-maintenance uses) and an active scheme comprised of move specialized uses. The plan fully incorporates the anticipated SLR at this low-lying coastal property. See the report at: <http://www2.vims.edu/bridge/coastalaccess/reports.cfm>. Point of contact: Troy Hartley, thartley@vims.edu.