Delaware Resilient and Sustainable Communities Summit

Lessons of the 2017 Hurricanes:

Learning From the Past to Prepare Our Communities For the Future

November 27, 2017

9:00am-4:00pm

Delaware Tech - Del One Conference Center
Dover, Delaware

Welcome Summit Attendees!

The Delaware Resilient and Sustainable Communities League would like to welcome you to our first Summit. We are excited to have you join us!

Vision of the Resilient and Sustainable Communities League:

Vibrant and prepared communities that thrive in the face of changing environmental conditions

Delaware Resilient and Sustainable Communities Summit

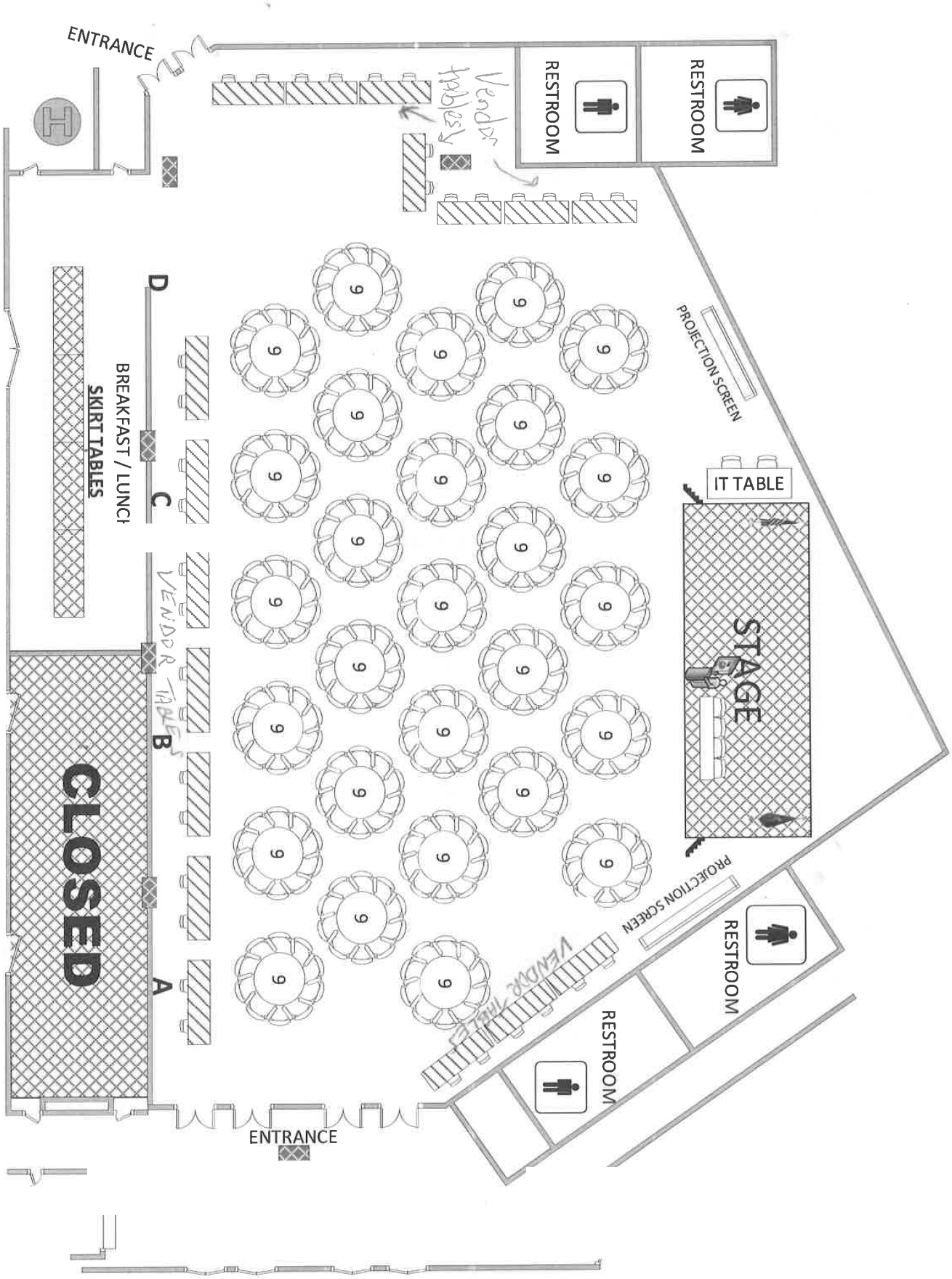
Monday, November 27
Del Tech Conference Center
Dover, DE

Lessons of the 2017 Hurricanes: *Learning From Our Past to Prepare Our Communities For the Future*

2017 Hurricanes Harvey, Irma, and Maria inflicted devastating impacts on communities across the U.S. The sobering headlines coming from the affected regions raise questions as to what Delaware is prepared for, and what we can do to prepare for natural hazards in the future.

Coastal storms and climate change present great threats, but also great opportunities to plan and prepare, and to build resilient, livable, and sustainable communities. Resiliency planning can reduce risk, improve services, adapt to changing conditions, and empower citizens to make sustainable choices. Across the state, communities, organizations, and governments at all levels are already taking steps to improve their ability to withstand and recover quickly from extreme weather events and adapt to the impacts of climate change. It is important to share successful approaches and build off of past partnerships so that we can take action on resilience challenges in our communities now before impacts occur.

To bring this timely topic to light, the Delaware Resilient and Sustainable Communities League (RASCL) is hosting its first Summit and we thank you for attending!



Technology Drive and Parking Lot

SUMMIT AGENDA

8:30 am	**Registration and Check In**
9:00	**Welcome and Opening Remarks** **Shawn M. Garvin, Secretary, Delaware Dept. of Natural Resources and Environmental Control** *(Danielle Swallow, Delaware Department of Natural Resources and Environmental Control and Steering Committee Co-Chair, Resilient and Sustainable Communities League will introduce Secretary Garvin)*
9:30	**Panel Presentation I: Storms, Climatology, and Changing Conditions in Delaware** **Alan Cope**, Science and Operations Officer, National Weather Service, Phila./Mt. Holly Forecast Office **Dan Leathers**, Delaware State Climatologist, University of Delaware **John Callahan**, Climate Scientist, Delaware Geological Survey Moderated by **Tina Callahan**, Associate Director, Delaware Environmental Monitoring and Analysis Ctr.
10:45	**Break**
11:00	**Panel Presentation II – Improving Resiliency at the Community Level** **Alastair Probert**, South District Engineer, Delaware Department of Transportation **Marianne Walch**, Science and Restoration Coordinator, Delaware Center for the Inland Bays **Connie Holland**, Director, Office of State Planning Coordination Moderated by **Ann Gravatt**, Planning Supervisor, Delaware Department of Transportation
12:10 pm	**Catered Buffet Lunch** Information booths available to browse prior to keynote speech ***Keynote Speaker: Nancy Balcom, Associate Director, Connecticut Sea Grant*** ***Topic: Communicating Storm Risk: Insights on Human Behavior In the Wake of Superstorm Sandy and the 2017 Hurricanes***
1:20	**Break**
1:35	**Stories From the Field – Lessons Learned, Success Stories, and Best Practices** **Cindy Todd and Mike Powell**, Delaware Department of Natural Resources and Environmental Control **Rob Pierce**, Planning & Economic Activities Coordinator, City of Milford **Harry Ward**, Mayor, Town of Slaughter Beach Moderated by **Kelly Valencik**, Delaware Department of Natural Resources and Environmental Control and Steering Committee Co-Chair, Resilient and Sustainable Communities League
2:30	**Discussion Session – Turning Today's Information Into Action at the Local Level** Moderated by **Philip Barnes**, Institute For Public Administration and Steering Committee Co-Chair, Resilient and Sustainable Communities League
3:15	**Networking Session – Informational Tables/Booths available**
4:00	**Wrap Up and Door Prize Drawing**

Abstracts & Bios

Opening Remarks

9:00

Summit Welcome

Shawn Garvin
Secretary
Delaware Department of Natural Resources and Environmental Control

The Secretary will provide welcome remarks on the importance of resiliency and sustainability and announce the publication of new State of Delaware Sea-Level Rise Planning Scenarios

Shawn M. Garvin was confirmed by the Delaware State Senate March 15, 2017 as Secretary of the Department of Natural Resources and Environmental Control, taking office immediately afterward as a member of Governor John Carney's cabinet. Mr. Garvin is the 11th secretary since 1970 to lead the state department tasked with protecting and managing the state's natural resources, protecting public health, providing outdoor recreational opportunities and educating Delawareans about the environment.

Secretary Garvin's career in intergovernmental affairs spans more than 20 years at the federal and local levels. In November 2009, he was appointed by President Barack Obama to serve as Administrator of Region 3 for the U.S. Environmental Protection Agency (EPA), overseeing the agency's work in the Mid-Atlantic, which includes Delaware, Maryland, Pennsylvania, Virginia and West Virginia, as well as the District of Columbia.

Before he was named regional administrator, Secretary Garvin served as the senior state and congressional liaison for EPA Region 3, providing counsel to agency leadership on complex public health and environmental matters. Prior to his service with the EPA, he served as an aide to then-U.S. Senator Joe Biden, and also was executive assistant to former New Castle County Executive Dennis Greenhouse. Secretary Garvin is a Delaware native and graduate of the University of Delaware.

Panel Presentation I - Storms, Climatology, and Changing Conditions in Delaware

9:30 am

Efforts of the National Weather Service to provide improved storm surge forecasts

Al Cope
Science and Operations Officer
National Weather Service
Mount Holly, NJ

Al's presentation will briefly cover efforts of the National Weather Service to provide improved storm surge forecasts and warnings for coastal residents in Delaware and elsewhere along the East Coast. Hurricanes and Nor'Easters both pose flooding threats, however the meteorology and products used to communicate those threats are somewhat different. In either case, the NWS is working to provide more accurate and detailed water level forecasts, in terms that can be more easily understood and applied to protect life and property.

Al holds a B.S. Degree (1977) in Meteorology from N.C. State University and a M.S. Degree in Atmospheric Science (1980) from the State University of New York at Albany.

Al started out working for NOAA/NESDIS in 1980 in Washington D.C. From 1983 to 1994. He worked at the National Severe Storms Forecast Center in Kansas City. Since 1994, Al has been the Science and Operations Officer at the National Weather Service Forecast Office in Mount Holly, NJ.

Coastal Storms and Their Impacts: A Brief History for Delaware

***Dr. Dan Leathers**, Professor*
Delaware State Climatologist
Director of the Meteorology and Climatology Program
Department of Geography, College of Earth, Ocean, and Environment
University of Delaware

Coastal storms can cause significant impacts across Delaware from storm surge flooding, high winds, heavy precipitation, and during the winter months snowfall. The frequency and intensity of coastal storms affecting Delaware will be reviewed, and their relationship to tidal flooding will be discussed for the period 1945 through 2016.

Dr. Leathers serves as a Professor in UD's Department of Geography, as Delaware's State Climatologist, and as Director of the Center for Environmental Monitoring and Analysis. He has also served as the Chair of the Department of Geography and as Deputy Dean of the College of Earth, Ocean, and the Environment. His major research interests include understanding the role of snow cover in the global climate system, and environmental monitoring. He earned a BA in Physics and Astronomy at Lycoming College, a MS in Meteorology from Penn State University, and a Ph.D. in Geography from Penn State.

Sea-Level Rise and Tidal Flooding in Delaware

John Callahan
Climate Scientist
Delaware Geological Survey
University of Delaware

Sea-level rise has been observed in Delaware at nearly twice the rate of the global average. It's a consequence of a warming world that will likely only get worse and could cause significant impacts on Delaware's coasts. New scenarios of future sea-level rise have been identified that local, county, and state agencies and other organizations can use in long-term planning activities.

John is a climate scientist with the Delaware Geological Survey, University of Delaware. His background is in climate change, physical geography and natural hazards with an emphasis on geospatial and statistical data analysis. His recent focus has been on trends of coastal flooding from sea-level rise and coastal storms.

Panel Presentation II - Improving Resiliency at the Community Level

11:00 am

DelDOT assistance to Florida DOT for IRMA recovery

Alastair Probert
South District Engineer
Delaware Department of Transportation

Alastair Probert is the South District Engineer for the Delaware Department of Transportation. He is responsible for the maintenance of the road and bridge network in Sussex County and manages the Department's response to storm events throughout the County with a workforce of two hundred employees.

Building sustainable coastal communities through partnership – a win for towns and the environment.

Marianne Walch
Science and Restoration Coordinator
Delaware Center for the Inland Bays

This presentation will describe living shoreline and stormwater green infrastructure work being facilitated by the Center in coastal communities such as Dewey Beach and South Bethany. Public and private partnerships have made project planning and implementation particularly effective.

Dr. Marianne Walch serves as the Science and Restoration Coordinator for the Delaware Center for the Inland Bays, where she has led the Center's research, monitoring, and ecosystem restoration efforts since 2015. Prior to that, she worked for 13 years managing stormwater quality monitoring and research programs for DelDOT.

Improving Resiliency Through Planning

Connie Holland
Director
Delaware Office of State Planning Coordination

Connie will be discussing how communities can plan for resiliency and increase community preparedness.

Connie Holland currently serves as Director of the Office of State Planning Coordination under the leadership of Governor John Carney. In this capacity she directs the Office of State Planning Coordination, which acts as a liaison between State and local governments. Connie was the former director of the Kent County Planning Office responsible for planning, inspections and GIS.

Connie was nationally recognized in July 2000 with the distinguished title of AICP (American Institute of Certified Planners). In 2010 Connie was honored by the Delaware APA with the Peter Larson Memorial Achievement Award. This prestige award was given in recognition of "a portfolio of work which has advanced the profession of planning in the state of Delaware.

Keynote Lunch Speaker

Nancy Balcom
Associate Director
Connecticut Sea Grant

Topic: Communicating Storm Risk: Insights on Human Behavior In the Wake of Superstorm Sandy and the 2017 Hurricanes

The Coastal Storm Awareness Program is a collaboration of the Connecticut, New York, New Jersey and National Sea Grant programs. Ten social science research projects investigated how coastal storm risks are communicated, and how people process and respond to those risks, based on their experience with Superstorm Sandy.

Nancy is the Associate Director and Extension Program Leader for Connecticut Sea Grant and a Senior Extension Educator with UConn Extension. Her extension interests range from invasive species, seafood safety and marine spatial planning to seaweed aquaculture, disaster risk communication and community resilience, affirming Sea Grant's focus on local priorities backed by flexibility and responsiveness. In 1985, Balcom first discovered and became part of the Sea Grant family as a VIMS graduate student working for Virginia Sea Grant. In 1990, she returned to her native Nutmeg State to work for Connecticut Sea Grant, continuing what has become a 32-year career. Balcom and her husband Prentiss have two sons, both recent college grads, and two 10-year old Labrador retrievers who approach life most enthusiastically.

Stories From the Field – Lessons Learned, Success Stories, and Best Practices

1:35pm

Transforming Red Clay Creek floodplain in Yorklyn from a community threat to a sustainable community asset.

Mike Powell
Environmental Program Manager
Delaware Department of Natural Resources and Environmental Control

and

Cindy Todd
Construction Project Administrator
Delaware Department of Natural Resources and Environmental Control

This presentation will describe a project in coordination with DNREC Parks and Recreation and FEMA to purchase repetitively flooded buildings as part of the transformation of the Red Clay Creek Floodplain in the community of Yorklyn to a more sustainable long term use.

Michael Powell is an Environmental Program Manager for the DNREC Division of Watershed Stewardship. In this capacity, mike is responsible for floodplain mapping, dam safety, and the beach preservation regulatory program.

City of Milford's efforts to include recommendations in the City's 2017 Comprehensive Plan Update related to Climate Vulnerability

Rob Pierce
Coordinator of Planning & Economic Development Activities
City of Milford, Delaware

Rob's presentation will focus on the City's efforts to include recommendations in the City's 2017 Comprehensive Plan Update related to Climate Vulnerability. The City of Milford procured the services of the University of Delaware Institute for Public Administration to assist with updating the City's Comprehensive Plan, which included research on behalf of DNREC Division of Energy and Climate to assess and incorporate climate vulnerability into municipal comprehensive plans at the request of DNREC Division of Energy and Climate.

Rob has been with the City of Milford for 2.5 years and previously worked for Kent County Levy Court for 10 years. He is in charge of the Planning Department for the City which includes planning & zoning, building construction, code enforcement, economic development and GIS.

The Town of Slaughter Beach's Preparedness and Resiliency Planning

Harry Ward
Mayor
Town of Slaughter Beach, Delaware

Harry's presentation will describe the character of the Town of Slaughter Beach and cover the decisions that led the Town Council to working with the DNREC Coastal Programs Office a Resilient Community Partnership project, the outcomes, and community feedback on the process. Harry will also discuss lessons learned from the process and the next steps - in the short and long term) - for the Town.

Networking Session Informational Exhibitors

Organization Exhibitor Name	Programs/Project Titles
Citizens' Climate Lobby, Lower Delaware John Flaherty and Charlie Garlow	Building Political Will for a Livable World
Delaware Center for Horticulture Mackenzie Knight-Fochs	Community Greening and Education in Delaware
Del. Division of Historical & Cultural Affairs Alice Guerrant and Terence Burns	Outcomes of Sea-level Rise on Historic Properties
Delaware Department of Transportation Silvana Croope	Transportation Climate Resilience and Sustainability Initiatives
DNREC Division of Energy and Climate Kathy Harris	The Delaware Clean Cities Coalition
DNREC Wetland Monitoring and Assessment Program Brittany Haywood	Watershed Projects, Del. Living Shoreline Committee, and Beneficial reuse reports
Southeast Rural Community Assistance Project (SERCAP) Gayle Hoffman	Southeast Rural Community Assistance Project (SERCAP)
Environmental Finance Center Mike Hunninghake	Environmental Finance Center Assistance for Local Communities
Delaware Interfaith Power & Light Lisa Locke	Green Empowerment Program
Sustainable Delaware John Matekyko	Sustainable Delaware: Transition to Carbon Neutral
Delaware Sea Grant Jennifer Merrill	Delaware Sea Grant Community and Research Projects
Delaware Center for the Inland Bays Morgan Pitts	Living Shorelines
National Wildlife Federation Karl Schrass	Natural and Nature-Based Solutions for Coastal Resilience
University of Delaware Institute for Public Administration Marcia Scott	Planning for Complete Communities in Delaware
Delaware Sustainable Energy Utility Suzanne Sebastian	Energize Delaware Programs
Delaware Tech Vish Sivaram	Improving grid resiliency using microgrids
Delaware Emergency Management Agency Ed Strouse	FEMA Hazard Mitigation Grant Programs
Delaware Coastal Programs Kelly Valencik and Danielle Swallow	Resiliency Programs and the Coastal Training Program

Notes:

Notes:

Thank You!!
to our Resilient and Sustainable Communities League (RASCL) Outreach and Conference Planning Committee!

Phil Barnes, UD Institute for Public Administration

Tina Callahan, UD Center for Environmental Monitoring and Analysis

Ann Gravatt, Delaware Department of Transportation

Jennifer Merrill, Delaware Sea Grant

Dorothy Morris, Delaware Office of State Planning Coordination

Jim Pappas, Delaware Department of Transportation

Greg Pope, DNREC Environmental Finance

Mike Powell, DNREC Division of Watershed Stewardship

Danielle Swallow, DNREC Delaware Coastal Programs

Mike Tholstrup, DNREC Division of Energy and Climate

Kelly Valencik, DNREC Delaware National Estuarine Research Reserve

And to all of our event speakers, volunteers, and participants!

We owe our success at today's summit to your efforts!!

Delaware Resilient and Sustainable Communities League (RASCL)

VISION, MISSION, AND GOALS

Contact for More Information and Meeting Schedule: Kelly Valencik kelly.valencik@state.de.us

Vision: Vibrant and prepared communities that thrive in the face of changing environmental conditions

Mission: To accelerate the capacity of all local governments to undertake the necessary steps to become sustainable and resilient

Goals:

Goal 1: The capacity of Delaware's communities to be sustainable and resilient accelerates over time

Goal 2: RASCL serves as a forum for collaboration, information sharing, best practices, and partnering

Goal 3: Delaware's communities have a representative sitting on RASCL

Goal 4: Delaware communities consider sustainability and resiliency goals when making decisions about land use planning and development, emergency plans, energy and environmental conservation, and allocation of resources

MEMBER ORGANIZATIONS

Delaware Department of Natural Resources and Environmental Control (DNREC)
Delaware Department of Transportation (DelDOT)
Delaware Emergency Management Agency (DEMA)
University of Delaware Institute for Public Administration
Delaware Office of State Planning Coordination
Delaware Sea Grant
Center for the Inland Bays
Delaware Geological Survey
Delaware Environmental Monitoring and Analysis Center
Delaware State Climatologist
Partnership for the Delaware Estuary
Delaware League of Local Governments
Southeast Rural Community Assistance Project