

FY 2017 Work Plan (Sep 2016)
 University of Delaware - Water Resources Center
 Institute for Public Administration
 School of Public Policy and Administration

Water Resources Center

The University of Delaware Water Resources Center (DWRC) was established in 1965 as one of the 54 National Institutes for Water Resources (NIWR) at land grant universities in the 50 states, District of Columbia, and three island territories of Guam, Puerto Rico, and U.S. Virgin Islands. The DWRC is supported through Section 104 of the Water Resources Research Act of 1984 administered by the U.S. Department of the Interior and U.S. Geological Survey. As part of the national NIWR network, the mission of the DWRC is to: (1) support research, education, and public outreach programs that focus on water supply, water management, and water quality - issues of importance to Delaware citizens and (2) foster/support training and education programs for future water scientists, engineers, managers, and policy-makers who will lead the water resources research, planning, and management efforts in our state in the future.

Water Resources Agency

For 40 years, the Water Resources Agency has provided water assistance to governments in Delaware through the land-grant public engagement (service), learning (education), and scholarship (research) role of the University of Delaware. Since 1977 and amended in 1990/1997, the Water Resources Agency has been sponsored by a board of the State of Delaware, New Castle County, and Newark and Wilmington to provide for clean and plentiful water supplies in Delaware. A regional, intergovernmental approach is essential for water management since watersheds and aquifers cross many political jurisdictions. The Brandywine-Christina watershed in northern Delaware with headwaters in Maryland and Pennsylvania provides drinking water to a half million people and 2/3 of the population of Delaware, 3/4 of New Castle County, and all of Newark and Wilmington. Public/private water purveyors deliver drinking water from sole source aquifers to 1/3 of the State in southern New Castle, Kent, and Sussex counties. Delaware watersheds contribute \$6 billion annually to the First State economy and support 70,000 jobs and \$2 billion in wages.

Personnel

Gerald Kauffman	Director/Assistant Professor
Andrew Homsey	Associate Policy Scientist/GIS Manager
Nicole Minni	Assistant Policy Scientist/GIS Laboratory Lewes Campus
Martha Narvaez	Policy Scientist
Briana Diacopoulos	IPA Graduate Research Fellow (MS WSP)
Jordan Hochman	IPA Graduate Research Fellow (MS WSP)
Matt Ludington	IPA Graduate Research Fellow (MS WSP)
Andrea Miller	DWRC Undergraduate Intern (BA Environmental Studies)
Maya Kassoff	DWRC Undergraduate Intern (BS Environmental Science)

FY17 Budget

The intergovernmental water partnership cost-effectively leverages public and private contributions. Since watersheds cross many political boundaries, these investments provide benefits to many stakeholders and each State dollar is matched by these sources.

FY17 Operating Budget
State of Delaware
New Castle County
City of Newark
City of Wilmington
Grants
White Clay Creek Wild & Scenic River, National Park Service
William Penn Foundation (Year 3), Brandywine/Christina
USGS NIWR Delaware Water Resources Center
Delaware Nature Society, Clean Water Campaign
Partnership for Delaware Estuary, State of Estuary Report

Project (FY17)	Description	Q1	Q2	Q3	Q4
State of Delaware					
Brandywine Christina Clean Water Partnership	Co-chair CB Clean Water Partnership. Implement Pollution Control Strategy. Define water quality trends ('95-'14).				
Senate Resolution 30 Clean Water and Flood Abatement Task Force	Serve as University of Delaware member of clean water initiative legislative task force.				
DNREC Climate Change Task Force	Implement water and climate change recommendations for DNREC Secretary Climate Change Task Force.				
Source Water Assessment and Protection Program (SWAPP)	Maintain SWAPP website. Update source water assessments for Wilmington, Newark, and United Water Delaware.				
First State National Park Brandywine Watershed Plan	Work with DNREC, National Park Service, and The Nature Conservancy on watershed plan for First State National Park.				
Water Supply Coordinating Council	13 th Report to Governor and General Assembly update water demands to 2030. Drought guidelines for KC & SC w/DGS.				
Watershed Tributary Action Teams Pollution Control Strategies	Delaware watersheds website for Broadkill, Chesapeake, Murderkill, and White Clay Creek watersheds.				
Benefit-Cost Analysis of Improved Water Quality in Delaware	Estimate Benefits and Costs of Improved Water Quality for Clean Water Act Sec 303d(d) List of Impaired Streams				
City of Wilmington					
Brandywine/Hoopes Reservoir Source Water Protection Plan	Assist City with implementation of source water protection plan in Delaware and Pennsylvania.				
Green Infrastructure Projects to Mitigate CSO Events	Assist City with planning/design of green infrastructure to reduce combined sewer overflows				
Wilmington Green Jobs Program	Sponsor watershed-based summer internship and training program for high school students.				
Water Rate Survey	Update and prepare water rate survey for utilities in Delaware and surrounding states.				
City of Newark					
Municipal Separate Storm Sewer MS4 NPDES Permit	Assist w/implementation of EPA/DNREC NPDES MS4 stormwater permit to meet Federal Clean Water Act.				
Stormwater Infrastructure Fund	Conduct research to assist Newark with development of a stormwater infrastructure fund.				
Upper Christina River Stream Restoration Project	Clean Water Grant w/DNREC. Monitoring & public outreach for stream restoration (West Branch and Christiansted)				
Water and Stormwater System Models	Update EPANET2 water distribution and SWMM wastewater collection system models for Newark.				
White Clay Creek Early Warning System	Work w/ Newark and United Water Del. to develop early warning system for spills and emergencies.				
New Castle County					
Municipal Separate Storm Sewer MS4 NPDES Permit	Assist w/implementation of EPA/DNREC mandated stormwater permit to meet Clean Water Act.				
Water Resource Protection Area Program	Update WRPA mapping on GIS. RPATAC, review land development applications for WRPA impacts.				
Grants					
White Clay Creek Wild & Scenic River, National Park Service	Staff and student assistance to implement White Clay Creek watershed management plan.				
William Penn Foundation (Year 3), Brandywine/Christina Water Fund	Conduct market-based funding financial feasibility study for the Brandywine/Christina watershed cluster				
USGS NIWR Delaware Water Resources Center	Direct the Delaware Water Resources Center and manage undergraduate/graduate water resources research program				
Delaware Nature Society, Clean Water Campaign	Public education/outreach for Delaware Clean Water Campaign				