Statement of Purpose: The University of Delaware Water Resources Center (DWRC) is dedicated to addressing the pressing issues of today including the global pandemic and challenges in achieving true racial equality. These issues are fundamentally important in researching and protecting the waters of Delaware and watersheds across the region. A healthy watershed that serves the needs of our citizens requires a focus on both public health and a healthy diversity of culture, race, viewpoints, and interests. A crosscutting focus on these issues can help ensure the DWRC’s continued fulfillment of the University’s land grant mission of research, education, and public service, through scientific study, outreach, and the training of future environmental scientists, engineers, policy experts, managers and other leaders in the field of water resources. The DWRC intends to address these concerns in the following ways.

Public Health: In accordance with the Governor’s and UD administration’s directives concerning the pandemic, the DWRC will move toward a phased reopening of the office by July 15, 2020 with more extensive reopening in the fall semester. The ongoing pandemic has borne out the fact that the DWRC is able to maintain a high degree of efficiency and efficacy through the recent disruptions to the physical parameters of the work environment. Most of the work undertaken has been and can continue to be effectively achieved from remote locations, using technology to remain in contact with co-workers, funders, colleagues, and students. All components of the phased reopening with regard to the pandemic will be closely guided by the University’s own policies and time-table published here: https://www.udel.edu/home/coronavirus/ud-campus-phased-reopening/guidelines/

- Wear face masks
- Wash hands frequently and disinfect surfaces
- Use closed conference table area
- Check health daily including temperature
- Stay home when sick
- Work from home when you can
- Provide sanitizer for visitors
- At office work socially distant

Diversity: Diversity is essential in civil society and in our scientific mission at the University of Delaware. The DWRC will redouble efforts to reach out and recruit talented minority and economically disadvantaged students and researchers. In the scientific world diversity is necessary for the evolution of knowledge and thus the protection of the environment on which everyone’s well-being depends. The DWRC has long been dedicated to this ideal taking a leadership role in the development of youth in Wilmington through the Green Jobs program which develops the skills of tomorrow’s leaders. Certainly more can and needs to be done.

Through the recruitment of an increasingly diverse population of faculty, policy scientist, and undergraduate/graduate research students, this diversity can be strengthened. In accordance with our mission as designated by Congress under the Water Resources Research Act of 1984, the DWRC will reach beyond the University of Delaware to strengthen partnerships across the state at research institutions of higher-learning at Delaware State University, Wesley College, and Delaware Technical Community College. In this way DWRC will strengthen and broaden its research and scientific reach and enhance its ability to serve the needs of Delaware and all Delawareans, to whom water is a crucial resource and a prerequisite to health and happiness. We will focus on:

1. Correspond with presidents of University of Delaware, Delaware State University, Wesley, and Delaware Tech requesting nominations of diverse students for DWRC undergraduate water research internships beginning with Fall 2020 semester.

2. Re-examine composition of DWRC Advisory Panel for diversity and request feedback from the DWRC Advisory Panel on ways DWRC may be increase diversity and inclusiveness among its students, board and project work.

3. Look at our DWRC student alumni and celebrate their stories and their background, see https://www.wrc.udel.edu/about-wra/student-research-assistants/.

4. Incorporate demographics of race, ethnicity, gender, and income of the study area into every research report such as the Delaware Inland Bays Economic Study. Assess how existing and future projects may be enhanced to improve diversity and inclusiveness.

5. Utilize Univ. of Delaware and Coalition for the Delaware River Watershed (CDRW) resources to increase diversity at DWRC.
- University of Delaware Office of Diversity and Inclusion https://sites.udel.edu/diversity/
- Coalition for the Delaware River Watershed (CDRW) http://www.delriverwatershed.org/deij
Mission

**Delaware Water Resources Center (DWRC):** 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 Congressionally-mandated by Section 104 of the Water Resources Research Act of 1984 and 1964 administered by the U.S. Department of the Interior and U.S. Geological Survey. As part of the 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 important 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.

**Water Resources Agency:** Since 1977, 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, ¾ 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.

**Staff:** The DWRC employs the following faculty, scientists and students to fulfill our mission:

- Gerald J. Kauffman   Director/Associate Professor
- Andrew R. Homsey   Policy Scientist/GIS Manager
- Nicole M. Minni   Associate Policy Scientist/GIS Laboratory Lewes Campus
- Martha R. Narvaez   Policy Scientist/Associate Director
- Angela Speers   Sponsored Programs Coordinator
- Kelly Jacobs   Graduate Research Fellow (M.S. Energy and Environmental Policy)
- Mary Kegelman   Undergraduate Research Fellow (B.S. Environmental Engineering)

**FY21 Budget:** The intergovernmental water partnership cost-effectively leverages public/private contributions. Since watersheds cross political boundaries, these investments provide benefits to many stakeholders and each State dollar is matched by these sources.

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<td>USGS NIWR Delaware Water Resources Center</td>
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<td>DCT Coastal Flood Inundation Grant, Phase II</td>
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<td>Chesapeake Bay Watershed Improvement Plan (WIP)</td>
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<td>Brandywine/Hoopes Reservoir Source Water Protection Plan</td>
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<td>Brandywine Creek Brownfields Plan</td>
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<td>Upper Christina River Stream Restoration Project</td>
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<td>Water and Stormwater System Models</td>
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<td>White Clay Creek Source Water Protection Plan</td>
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<td><strong>New Castle County</strong></td>
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<td>Water Resource Protection Area Program (WRPA)</td>
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<td>Floodplain/Stormwater Mapping</td>
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<td>Hercules Golf Course Watershed Plan/Red Clay Cr.</td>
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<td>Southern New Castle County Wastewater Plan</td>
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<td>Nanticoke River Economic Study</td>
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<td>DRBC Delaware River Economic Benefits Research</td>
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</tbody>
</table>
DWRC Advisory Panel

Jayme Arthurs
USDA Natural Resources Conservation Service
Dover, DE 19904

Mr. Chris Bason
Center for the Inland Bays
Rehoboth, DE 19971

Mr. Ethan Robinson
City of Newark, Dept. of Public Works
Newark, DE 19711

Mr. Jeff Downing
Mt. Cuba Center, 3120 Barley Mill Rd.
Wilmington, DE 19707

Dr. Asia Dowtin
Department of Forestry, Natural Resources Building,
East Lansing, MI 48824

Dr. Mingxin Guo
Department of Agriculture and Natural Resources, Delaware State University
Dover, DE 19901

Ms. Kate Hutelmeyer
Partnership for the Delaware Estuary
110 S. Poplar St., Suite 202
Wilmington, DE 19801

Ms. Andrea Trabelsi
Dept. of Planning, New Castle County
New Castle, DE 19720

Dr. Shreeram Inamdar
Department of Plant & Soil Science
University of Delaware, Townsend Hall
Newark, DE 19716

Dr. Paul Imhoff
Department of Civil and Environmental Engineering, University of Delaware
Newark, DE 19716

Dr. Thomas McKenna
University of Delaware, Delaware Geological Survey
Newark, DE 19716

Ms. Kristin Travers
Delaware Nature Society
Hockessin, DE 19707

Ms. Chris Oh
City of Wilmington, Dept. of Public Works
Wilmington, DE

Ms. Betzaida (Betzy) Reyes
U.S. Geological Survey
Dover, DE 19901

Mr. Kash Srinivasan
603 E. Matson Run
Wilmington, DE 19802

Mr. Jim Jordan
Brandywine Valley Association
West Chester, PA 19382

Ms. Jennifer Volk
Kent County Cooperative Extension, University of Delaware
Dover, DE 19904

Mr. Steve Williams/Ms. Jennifer Walls
Delaware DNREC, Division of Watershed Stewardship
Dover, DE 19901

Mr. Christian Hauser, Associate Director, Delaware Sea Grant College Program
College of Earth, Ocean, and Environment, University of Delaware
Newark, DE 19716

UDWRC Students

2019
Kelly Jacobs (M.S. Energy and Environmental Policy)
Matt Kirchoff (M.S. Energy and Environmental Policy)
Polly Ni (Environmental Engineering)
Justin Leary (Environmental Engineering)
Mary Kegelman (Engineering)

2018
Jillian Young (M.S. Water Science and Policy)
Kelly Jacobs (M.S. Energy and Environmental Policy)
Karice Redhead (M.S. Energy and Environmental Policy)
Alyssa Cortese (B.S. Environmental Science)
Natalie Zimmerman (B.S. Geological Sciences)

2017
Jillian Young (M.S. Water Science and Policy)
Briana Diacopoulos (M.S. Water Science and Policy)
Jordan Martin (M.S. Water Resources Engineering)

2016
Chelsi Cambell (B.S. Civil and Environmental Engineering)
Matthew Ludington, (M.S. Water Science and Policy) | LinkedIn Profile
Andrea Miller, (B.A. Environmental Studies)
Maya Kassoff, (B.S. Environmental Science) | LinkedIn Profile

2015
Laura Askin (Public Administration)
Samantha Brucker (Urban Affairs and Public Policy)
Kristen Molfetta (Water Science and Policy)
Matthew Ludington (Water Science and Policy)

2014
Jillian Allen (Civil and Environmental Engineering)
Matt Bachman (Water Science and Policy)
Hannah Diehl (Civil and Environmental Engineering)
Asia Dowtin (Geography)
Andrew Colletti (Civil and Environmental Engineering)
Tobias Muller (Civil and Environmental Engineering)
Danielle Notvest (Civil and Environmental Engineering)
Kelli Platt (Civil and Environmental Engineering)
Radhika Samant (Civil and Environmental Engineering)
Julie Swanson (Civil and Environmental Engineering)
Sara Veale (Civil and Environmental Engineering)

2013
Kevin Archibald (Biology)
Emily Baumbach (Natural Resources Management)
Joe Brown (Urban and Regional Planning)
Asia Dowtin (Geography)
Caren Fitzgerald (English and Environmental Studies)
Kate Miller (Water Science and Policy)
Thomas Santangelo (Water Science and Policy)
Kelsey Wentling (Environmental Studies)

2012
Devika Banerjee (Environmental Studies)
Catherine Cruz-Ortiz (Energy and Environmental Policy)
Kaitlyn Cyr (Environmental Studies)
Jordan Deshon (Civil and Environmental Engineering)
Ian Kaliaken (Civil and Environmental Engineering)
Seth Olsen (Natural Resources Management)

2011
Erica Addonizio (Chemical Engineering)
Dustin Briggs (Civil and Environmental Engineering)
Sarah Chatterton (Urban Affairs and Public Policy)
Chelsea Halley (Natural Resources Management)
Lawrence Latour (Civil and Environmental Engineering)
Stacy Mack (Urban Affairs and Public Policy)
Erin McVey (Urban Affairs and Public Policy)
David Specht (Civil and Environmental Engineering)

2010
Kayla Iuliano (Geography)
Audrey Yorke (Civil and Environmental Engineering)

2009
Kaci Angeline (Geography)
Erika Farris (Urban Affairs and Public Policy)
Maureen Seymour (Urban Affairs and Public Policy)
Kelly Wolfe (Urban Affairs and Public Policy)

2008
Jonathan Barton (Electrical and Computer Engineering)
Kyle Campbell (Civil and Environmental Engineering)
Christi DeSisto (Civil and Environmental Engineering)
Erin Dilworth (Natural Resources Management)
Kiersten Joesten (Natural Resources Management)
Angelina Micheva (Urban Affairs and Public Policy)
Mary Kate O’Brien (Natural Resources Management)
Julie Trick (Civil and Environmental Engineering)
Laura Yayak (Natural Resources Management)

2007
Andrew Belden (Energy and Environmental Policy)
Priscilla Cole (Energy and Environmental Policy)
Jyoti Karkhi (Energy and Environmental Policy)

2006
Molly Hesson (Energy and Environmental Policy)
Kevin Vonck (Urban Affairs and Public Policy)
Melissa Zechiel (Urban Affairs and Public Policy)

2005
Steven Ernest (Natural Resources Management)
Elaine Grehl (Horticulture Administration, Longwood Graduate Program)
Andrew Kauffman (Civil and Environmental Engineering)
Laura Robinson (Civil and Environmental Engineering)
Lori Schnick (Geology)

2004
Amy Dolan (Energy and Environmental Policy)
Sarah Wozniak (Energy and Environmental Policy)

2002
Justin Bower (Urban Affairs and Public Policy)
Martha Corrozi (Urban Affairs and Public Policy)
Jarod Doucette (Electrical Engineering)
Tara Harrell (Natural Resources Management)

2001
Jennifer Campagnini (Natural Resources Management)

2000
Nigel Bradly (Marine Policy)
Anne Kitchell (Marine Policy)

1999
Tammy Brant (Marine Policy)
Jennifer Egan (Geology)
Maryjane Middelkoop (Marine Policy)

1998
Kareem Ali (Civil and Environmental Engineering)
Rose Marie Alicea (Education)
Suzanna Donohue (Marine Policy)

1997
Annemarie Cinaglia (Geography)
Katie Miller (Geography)
Tammy Nguyen (Geography)

1996
Daniel Blevins (Geography)
Erin Guire (Geography)
Marcia Horner (Geography)
Matt Kennedy (Geography)
Bryan Lennon (Civil and Environmental Engineering)

1995
Carin Cataldi (Geography)
Ty Fitzpatrick (Geography)
Leon Palermo (Civil and Environmental Engineering)

1994
Lori Blackburn
David Mannering (Geography)
Gail Slevin (Geography)
Anne Welsh
Toby Wolf (Geography)