

UNIVERSITY OF FLORIDA WATER INSTITUTE
5-YEAR ACCOMPLISHMENT REPORT
April 2011 - April 2016

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1 EXECUTIVE SUMMARY

The University of Florida Water Institute coordinates interdisciplinary research, education and outreach programs designed to develop and share new knowledge, and to develop and encourage implementation of new technology and policy solutions for water issues. Dedicated efforts have forged linkages among diverse groups of faculty and graduate students representing a breadth of water specialties from geophysical to biological to social sciences, engineering, law and humanities. The Water Institute is adding value to the University of Florida through research coordination and collaboration, synthetic cross-disciplinary studies and projects, joint proposal development, seminars and symposia. Illustrative examples of innovative research, education and outreach programs that have resulted from creation of the UF Water Institute are described below. More details can be found in the body of this report.

Research Preeminence: In 2015, faculty affiliated with the Water Institute led active research projects totaling approximately \$140 million, and received new sponsored water-related research awards totaling approximately \$18.5 million. During this same time period the Water Institute Director and staff coordinated interdisciplinary faculty teams conducting 9 funded interdisciplinary projects (\$4.6M), supported 4 additional funded interdisciplinary projects (\$1.7M with potential up to \$8.7M), and facilitated submission of 3 new interdisciplinary proposals (\$12.1M). For more information on these projects see the on-line searchable [Water Institute research database](#).

Education Preeminence: [The Water Institute Graduate Fellows \(WIGF\) program](#) supports faculty-graduate teams to conduct interdisciplinary research in emerging areas of water science, including the social, natural, and engineering sciences. The Deans of the UF/IFAS College of Agricultural and Life Sciences, UF College of Liberal Arts and Sciences, and the Directors of the School of Natural Resources and Environment and the Engineering School of Sustainable Infrastructure and the Environment have committed UF Graduate School Fellowships for biennial cohorts of 6 Ph.D. students to participate in this program. The Water Institute leverages this UF investment using gifts provided by the Carl S. Swisher Foundation and the Sherwood-Stokes Foundation to support field, laboratory and computer analyses by the student cohorts.

Outreach Preeminence: The UF Water Institute engages actively with statewide, regional and national communities. Examples of outreach activities include:

- 1) Biennial Water Institute Symposia: Five Water Institute Symposia have brought together researchers, engineers, policy makers, water managers, industry representatives, lawyers, students and citizens to increase awareness of key water related issues, consider the challenges to water resources sustainability and explore solutions to the most pressing problems.
- 2) Florida Water and Climate Alliance: The Water Institute facilitates the Florida Water and Climate Alliance ([FloridaWCA](#)), a stakeholder-scientist partnership committed to increasing relevance of climate-science data and tools at relevant time and space scales to support decision-making in water resource management, planning and supply operations in Florida.
- 3) Partnership with UF/IFAS Extension: The Water Institute partners with UF/IFAS Extension to support and expand water-related outreach efforts throughout the state.

2 INTRODUCTION

Florida's burgeoning population, and the vulnerability of its water resources to climate and other human-induced environmental change, make the state a unique living laboratory in which to develop new knowledge and test solutions to global water problems. In recognition of the importance of water issues and the need to address them in an interdisciplinary manner, the University of Florida (UF) established a campus-wide, interdisciplinary Water Institute in May 2006. Since its inception, the Water Institute has emerged as a leader in coordinating interdisciplinary research, education and outreach programs.

Scientific, public and political awareness of water issues is growing, emphasizing the need for interdisciplinary research, education and outreach programs that are relevant across local, national and global scales. Understanding complex water issues in a holistic manner and exploring integrated solutions to managing problems requires sustained high-level effort. It calls for bold action to obtain, integrate and share new data; design and conduct comprehensive experiments to further basic understanding; and develop new simulation tools to allow scientists, managers, citizens and policy makers to explore alternative scenarios of the impacts of climate change, population growth, land-use change, and water management and policy alternatives.

2.1 Mission

The Water Institute brings together talent from throughout the University and builds internal and external partnerships to address urgent water research challenges; implement innovative interdisciplinary academic programs to train excellent students; and provide state-of-the-art expert assistance and educational programs for external stakeholders.

2.2 Vision

Interdisciplinary Water Institute teams comprised of leading water researchers, educators and students develop new scientific breakthroughs; design creative engineering, policy and legal solutions; and pioneer innovative educational programs that are renowned for addressing state, national, and global water problems.

2.3 Values

Excellence: The Water Institute is committed to provide excellent interdisciplinary water-related research, education and outreach programs that are recognized for their preeminence in Florida, the nation and the world.

Partnerships: The Water Institute recognizes the importance of developing strong inclusive partnerships among Water Institute Affiliate Faculty and with external stakeholders to identify and prioritize critical water issues requiring interdisciplinary study.

Expertise: The Water Institute is committed to developing the basic knowledge, practical experience, and infrastructure required to respond to emerging water issues affecting a broad suite of stakeholders.

Respect: The Water Institute provides services that acknowledge, respect and promote the expertise of all Water Institute Affiliate Faculty, and embrace the personal values, cultures, and

socioeconomic context of its diverse stakeholders, both internal and external to the University of Florida.

2.4 Goals

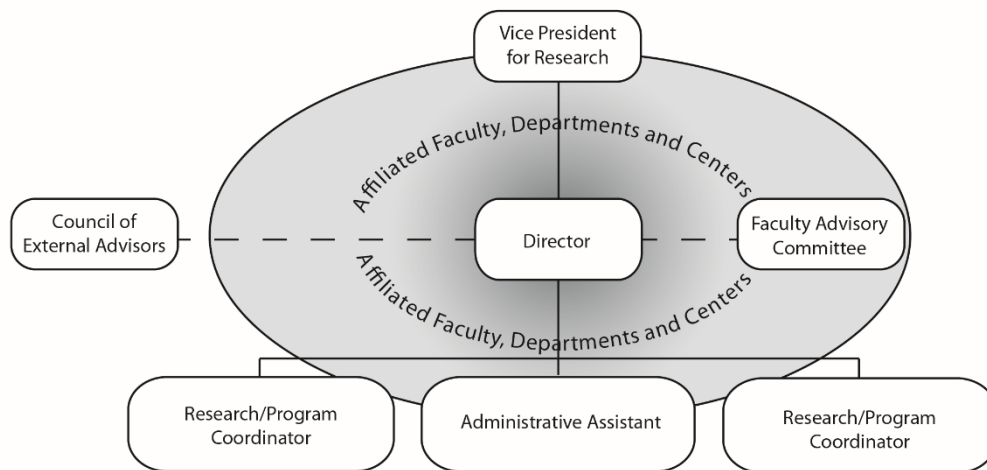
The Water Institute strives to achieve preeminence through successful research, education and outreach programs that:

- Improve basic knowledge of physical, chemical, and biological processes in surface and groundwater systems.
- Enhance understanding of interactions and interrelationships among humans (attitudes, behaviors and activities) and aquatic ecosystems.
- Develop improved methodologies for water management and policy - including quantity, quality and ecosystem services - based on a foundation of science, engineering, management and law.

3 ORGANIZATION

The Water Institute is led by a full-time Director who reports to the Vice President for Research (Figure 1). Two Research/Program Coordinators assist the Director in development, execution and evaluation of Water Institute programs. An Administrative Assistant serves as office accountant, office manager, and website/database developer.

Figure 1: Organizational Chart for University of Florida Water Institute
February 29, 2016



Individual UF faculty affiliation with the Water Institute is through voluntary registration in an on-line database. All registered faculty are considered Water Institute Affiliate Faculty and are eligible to vote on Water Institute governance issues. All Affiliate Faculty members retain their positions in their tenure departments where all administrative and performance review functions are carried out. Currently there are over 200 University of Florida faculty members from more than 65 departments and centers affiliated with the Water Institute.

An internal Faculty Advisory Committee (FAC) for the Water Institute consists of 15 members of the Water Institute Affiliate Faculty. Ten members of the FAC are elected by the Water Institute Affiliate Faculty on staggered 3-year terms. Five members are appointed by the Water Institute Director to ensure balance among disciplines. Table 1 shows the 2015-2106 membership of the Water Institute Faculty Advisory Committee.

Table 1. 2015-2016 Water Institute Faculty Advisory Committee

Name	Department	College
Michael Annable	Environmental Engineering Sciences	Engineering
Treavor Boyer	Environmental Engineering Sciences	Engineering
Mark Clark	Soil and Water Science	Agricultural and Life Sciences
Matthew Cohen	Forest Resources and Conservation	Agricultural and Life Sciences
Peter Frederick	Wildlife Ecology and Conservation	Agricultural and Life Sciences
Tracy Irani	Family, Youth and Community Sciences	Agricultural and Life Sciences
Jim Jawitz	Soil and Water Science	Agricultural and Life Sciences
David Kaplan	Environmental Engineering Sciences	Engineering
Jon Martin	Geologic Sciences	Liberal Arts and Sciences
Kati Migliaccio	Agricultural and Biological Engineering	Agricultural and Life Sciences/Engineering
Sandra Russo	International Center	Liberal Arts and Sciences
Elizabeth Sreaton	Geologic Sciences	Liberal Arts and Sciences
Arnoldo Valle-Levinson	Civil and Coastal Engineering	Engineering
Thomas Waltzek	Veterinary Medicine	Veterinary Medicine

An ad-hoc External Council of Advisors consists of speakers who have participated in the Water Institute Distinguished Scholar Seminar Series. These individuals are representatives of leading academic institutions in a wide range of water-related fields, many of whom are National Academy members and two of whom are Stockholm Water Prize winners.

4 ACCOMPLISHMENTS

4.1 Research

During the last five years (calendar years 2011-2015) faculty affiliated with the Water Institute led active research projects totaling over \$280 million. In 2015, faculty affiliated with the Water Institute led active research projects totaling approximately \$140 million, and received new sponsored water-related research awards totaling approximately \$18.5 million.

Over the last five years the Water Institute Director and staff coordinated and assisted interdisciplinary faculty teams with the development and submission of proposals and pre-proposals totaling over \$76 million, resulting in funded projects totaling over \$7.3 million. In 2015, the Water Institute Director and staff helped to coordinate 9 funded interdisciplinary projects (~\$4.6M), supported 4 additional funded interdisciplinary projects (~\$1.7M with potential up to ~\$8.7M) and submitted 3 new interdisciplinary proposals (~\$12.1M; See Table 2 below for details).

Recent Water Institute research highlights include successful launching of the \$3M Springs Protection Initiative project funded by the St Johns River Water Management District, and successful completion of the \$250K Everglades Review project funded by the Florida Senate. The goal of the interdisciplinary Springs Protection Initiative project, which involves 11 faculty members from 3 colleges, is to provide a scientific basis for improved springs protection and remediation. The purpose of the Senate project, which involved 6 faculty members from 2 colleges, was to provide an independent scientific peer review of Everglades restoration plans to inform state policy and funding priority. The report from this highly visible and controversial project was acclaimed by water resource managers, environmental groups and agricultural constituents as thorough, balanced and informative.

Table 2. 2015 Active Water Institute Projects and Grant Proposals Submitted

Principal Investigator	Dates	Title	Amount	Co-PIs	Agency	Status
Water Institute Coordinated Projects						
Graham, Wendy, WI	4/2007-12/2017	Use of Seasonal Climate Forecasts to Reduce Risk in Regional Public Water Supply Management	\$900,000	Martinez, Chris Irani, Tracy	Tampa Bay Water, St. Johns River Water Management District, NOAA	Funded
Graham, Wendy, WI	3/2011-2/2016	Watershed Management in the Face of EPA's Numeric Nutrient Criteria	\$73,600	Frazer, Tom	US Geological Survey 104(b) Program	Funded
Reddy, K. Ramesh, SWS	6/2014-9/2017	Springs Protection Initiative - Collaborative Research Initiative on Sustainability and Protection of Springs [CRISPS]	\$3,000,000	Graham, Wendy Annable, Mike Cohen, Matthew Jawitz, James Frazer, Tom Kaplan, David Kramer, Marc	St. Johns River Water Management District	Funded
Graham, Wendy, WI	8/2014-3/2015	Technical Review of Options to Move Water from Lake Okeechobee to the Everglades	\$250,000	Angelo, Mary Jane Frazer, Tom Frederick, Peter Havens, Karl Reddy, Ramesh	Florida Senate	Funded
Michael Dukes, ABE	1/2015-12/2018	Evaluation of water use, water quality and crop yield impacts of corn and peanut irrigation and nutrient BMPs in the springsheds of Suwannee River Water Management District	\$406,277	Rowland, Diane Graham, Wendy	Suwannee River Water Management District, Florida Dept of Agriculture, Florida Dept of Environmental protection	Funded

Water Institute Supported Projects						
Martin, Jonathan, GLY	8/2013-7/2016	Coastal SEES (Track 1): Planning for hydrologic and ecological impacts of sea level rise on sustainability of coastal water resources	\$441,125	Ogram, Andrew Valle-Levinson, Arnaldo Pen, Zhong-ren	National Science Foundation	Funded
Cohen, Matthew, SFRC	5/2014-4/2017	The Ecological Drill Hypothesis: Biotic Control on Carbonate Dissolution in a Low Relief Patterned Landscape	\$599,080	Martin, Jonathan Bianchi, Tom	National Science Foundation	Funded
Reddy, K. Ramesh, SWS	6/2014-9/2016	Collaborative Research Initiative on Everglades Stormwater Treatment Areas [CRESTA]	Up to \$7,000,000 (task order)	Adams, Carrie, Kaplan, David Gerber, Stefan Martinez, Chris Ogram, Andy Phlips, Edward	South Florida Water Management District	Funded
Grogan, Kelly, FRED	3/2015-3/2018	Innovative Policies to Optimize the Allocation of Water Quality and Conservation Investments and Maximize Multiple Benefits	\$659,676	Chris Martinez, Xiang Bi, Tatiana Borisova, Alan Hodges, Paul Monaghan	USDA NIFA	Funded
Shukla, Sanjay, SWFREC	4/2015-4/2016	Quantification of Ranchland Water Retention Effects on Flows and Nutrient Loads in the Northern Everglades	\$43,750	Inglett, Patrick, Graham, Wendy	South Florida Water Management District	Funded
Interdisciplinary Proposals Submitted						
Graham, Wendy, WI	7/16/2015	Agricultural Water Security for Florida, Georgia and Alabama through Sustainable Use of the Floridan Aquifer: An Integrated Assessment of Economic and Environmental Impacts	\$10,000,000	Kaplan, David Adams, Damian Dukes, Michael Rowland, Diane Fraisse, Clyde Irani, Tracy Monroe, Martha, plus faculty from AU, ASU and UGA	USDA	Declined

Misra, Vasu, FSU	11/17/2015	CNH-L: Whither are the thresholds in a Florida Urban Water System: Replaying history in a future world	\$1,699,284	Borisova, Tatiana	NSF	Pending
Loiselle, Bette A., CLATAM	11/17/2015	CNH-RCN: Amazon Dams Network: Advancing Integrative Research and Adaptive Management of Social-ecological Systems Transformed by Hydroelectric Dams	\$499,818	Athayde, Simone, Bohlman, Stephanie Kaplan, David	NSF	Pending

4.2 Investment of Water Institute Funds in Program Initiation

Table 3 below summarizes investment of Water Institute funds in program initiation between 2011 and 2015.

Table 3. Water Institute Program Initiation Funds 2011-2015

Date	Principal Investigator	Description	Amount
June 2011	Mark Brown	2011 Water Institute Graduate Fellows Cohort: Watershed Management in the face of EPA's New Numeric Nutrient Criteria for Florida Waters	\$100,000
August 2013	Jonathan Martin	2013 Water Institute Graduate Fellows Cohort: Impacts of Sea-Level Change on Coastal Aquifers, Water Resources and Ecosystems	\$25,000
March 2015	David Kaplan	2015 Water Institute Graduate Fellows Cohort: Hydrologic transformation in the Amazon basin: reconciling economy, society, and the environment in the world's largest watershed	\$25,000
January 2015	Jane Southworth	Program Initiation Fund: Water, Africa, Disease and Health	\$10,000
January 2015	Diane Rowland	Program Initiation Fund: Evaluation of water use, water quality and crop yield impacts of corn and peanut irrigation and nutrient BMPs in the springsheds of Suwannee River Water Management District	\$20,000
February 2015	Rafael Muñoz-Carpena	Program Initiation Fund: The Water-Energy-Food-Environment nexus: Unintended consequences of interbasin water transfer for hydropower generation and agriculture on the protected environment	\$10,000
February 2015	Sanjay Shukla	Program Initiation Fund: Quantification of Ranchland Water Retention Effects on Flows and Nutrient Loads in the Northern Everglades	\$25,000

4.3 Water Institute Distinguished Scholar Seminar Series

The Water Institute Distinguished Scholar Seminar Series invites high-profile scholars to UF to conduct a Water Institute seminar of interest to a broad audience; meet with the Water Institute Faculty Advisory Committee to discuss strategic planning and partnering opportunities; and meet with interested Water Institute faculty and graduate students to discuss specific research and education issues. Five Distinguished Scholar speakers and two UF speakers were hosted during 2015-2016 (see Table 4 for details). For a complete listing of speakers since the Water Institute's inception see <http://waterinstitute.ufl.edu/seminars/seminars.asp>.

Table 4. 2015-2016 Distinguished Scholar Seminar Speakers

Date	Distinguished Scholar Seminar Speaker
March 24, 2016	Dr. Shemin Ge , 2016 Birdsall-Dreiss Distinguished Lecturer, Geological Society of America, University of Colorado-Boulder, Professor of Hydrogeology, Department of Geological Sciences
March 7, 2016	Dr. Eric Davidson , Professor and Director, Appalachian Laboratory, University of Maryland Center for Environmental Science
January 14, 2016	Dr. Michael Dukes , Water Institute Faculty Fellow, Department of Agricultural and Biological Engineering, Center for Landscape Conservation & Ecology, University of Florida
December 7, 2015	Dr. Mark Clark , Water Institute Faculty Fellow, Soil and Water Science Department, University of Florida
November 13, 2015	Dr. Benjamin Strauss , Vice President for Sea-Level and Climate Impacts, Climate Central
October 6, 2015	Dr. Torbjörn Tönqvist , Professor and Chair, Earth and Environmental Science, Tulane University
September 17, 2015	Dr. Andrew Sharpley , Professor of Soils and Water Quality, University of Arkansas

4.4 Symposia and Conferences

Biennial Water Institute Symposium: Five Water Institute Biennial Symposia have brought together researchers, engineers, policy makers, water managers, industry representatives, lawyers, students and citizens to consider the challenges to water resources sustainability; explore solutions for pressing issues; and provide broad-based recommendations for research, education, technology and policies to ensure water resources sustainability for Florida and beyond. The Water Institute [Symposia website](#) details the program, presentations and attendees for the February 2016 Water Institute Symposium, as well as the previous four Symposia.

Sponsorship of other Symposia: Financial and/or logistical support provided for water-related symposium coordinated by others is summarized in Table 5.

Table 5. Sponsorship of Water-Related Symposia 2011-2015

Date	Recipient	Purpose
January 2012	Phillip Williams	Water, Forests and People: Towards Integrative Research on Dams, Natural Resources and Society in the Amazon
June 2012	Ramesh Reddy	9th INTECOL International Wetlands Conference: Wetlands In A Complex World
October 2012	Betty Dunckel	FL Museum of Natural History Science Café
April 2013	Michael Annable	8 th IAHS International Groundwater Quality Conference (GQ13)

February 2015	Bette Loiselle	Center for Latin American Studies 65 th Annual Conference
May 2015	Rafael Munoz Carpena	American Society of Agricultural and Biological Engineers Climate Change Symposium
November 2015	Cynthia Barnett	Science, Society and the Climate Story
December 2015	Stan Bronson	Big Data and Decision Making: The Future of the Water Space
February 2016	Chris Martinez	CUAHSI/AWRA Lets Talk About Water Conference
February 2016	Alioune Sow	Imagining Climate Change: Science and Fiction in Dialogue

4.5 Graduate Education Programs

A Water Institute priority is to foster, support, and synergize innovative interdisciplinary water education. Although the Water Institute is not a degree granting entity, its research and education activities contribute substantially to graduate education at the University. [The Water Institute Graduate Fellows \(WIGF\) program](#) supports interdisciplinary faculty-graduate Fellow teams to conduct integrative research in emerging areas of water science, including the social, natural, and engineering sciences. The UF Water Institute provides administrative services to [The Hydrologic Sciences Academic Cluster \(HSAC\)](#), an interdisciplinary program designed to broaden the skills of science and engineering students interested in all aspects of water. [Water Institute Research Projects](#) support graduate students pursuing M.S. and Ph. D. degrees in water-related fields.

4.5.1 Graduate Students Supported by Water Institute Projects

[The Water Institute Graduate Fellows \(WIGF\) Program](#) was created in 2010 to support faculty-graduate teams to conduct interdisciplinary research in emerging areas of water science, including the social, natural, and engineering sciences. The Deans of the UF/IFAS College of Agricultural and Life Sciences, UF College of Liberal Arts and Sciences, and the Directors of the School of Natural Resources and Environment and the Engineering School of Sustainable Infrastructure and the Environment have committed funding for UF Graduate Research Fellowships in support of this program. This funding provides 4 years of support (stipend and tuition) to biennial cohorts of 6-8 Ph.D. students. In addition, participating faculty add students to the WIGF cohorts using other acquired grant funds.

The Water Institute leverages the UF investment in the WIGF program using gifts provided by the Carl S. Swisher Foundation and the Sherwood L. Stokes Foundation. These funds support field, laboratory and computer analyses by the faculty/student cohort as well as other integrative activities. Table 6 lists graduate students funded by the WIGF program to date. The Deans and Directors of the participating colleges and schools have agreed to provide funding for three additional cohorts that will begin in 2017, 2019 and 2021.

Table 6. Water Institute Graduate Fellows and Advisors

WIGF Cohort	Fellow	Faculty Advisor	Department
2011	Arnold, Elliott	Brenner, Mark	Geological Sciences
2011	Henson, Wesley	Graham, Wendy	Agricultural and Biological Engineering
2011	Laing, Joelle	Frazer, Tom	School of Natural Resources and Environment
2011	Nealis, Charles	Clark, Mark	Soil and Water Science

2011	Reijo, Courtney	Cohen, Matt	School of Forest Resources and Conservation
2011	Weinkam, Grant	Brown, Mark	Environmental Engineering Sciences
2013	Branyon, Jaqueline	Valle Levinson, Arnoldo	Civil and Coastal Engineering
2013	Chutcharavan, Peter	Dutton, Andrea	Geological Sciences
2013	Deng, Yujun	Peng, Zong-Ren	Urban and Regional Planning
2013	Glodzik, Katie	Pine, William	Wildlife Ecology and Conservation
2013	Huang, Labin	Ogram, Andrew	Soil and Water Sciences
2013	Pain, Andrea	Dutton, Andrea	Geological Sciences
2013	Skrivanek, Alexandra	Dutton, Andrea	Geological Sciences
2013	Vyverberg, Karen	Martin, Jon	Geological Sciences
2015	Hyde, Jacy	Bohlmann, Stephanie	School of Forest Resources and Conservation
2015	Lehmensiek, May	Lorensen, Kai	School of Natural Resource and Environment
2015	Sabo, Alexandra	Simmons, Cynthia	Geography
2015	Swanson, Christine	Valle, Dennis	School of Forest Resources and Conservation
2015	Crouch, Trey	Kaplan, David	Environmental Engineering Sciences
2015	De Carvalho, Roberta	Walker, Bob	Geography

In addition to the Water Institute Graduate Fellows program, the Water Institute Coordinated and Assisted grants and projects listed in Table 2 have supported more than 50 additional graduate students. Water Institute Affiliate Faculty support many more graduate students on individually managed water-related projects.

4.5.2 Water-Related Courses

Graduate courses developed and taught for the 2011 WIGF cohort included:

- POS6933 - Water Politics: an interdisciplinary exploration of "water politics" and the political dimensions of human manipulation of water, wetlands and watersheds;
- EES 6932 or FOR 6934 - Watershed Management and Restoration: a team-taught course on principles and practices of adaptive management, specifically focused on water resources; and
- EES 6935 - Socratic Synthesis Seminar: an experimental seminar designed to encourage divergent rather than convergent thinking based on dialogue and ideas rather than opinions.

The 2011 WIGF cohort developed an undergraduate course for the Honors Program (IDH-3931 (section 03H2), ABE-4932 (section 17HD), and SWS-4932 (section 1A65): Environmental Issues in Water Resources) and taught it for two years with about 10 students each year.

A graduate course supported by the Water Institute and in-part tailored for the 2015 WIGF cohort is LAS 6290 sect 12 G9 – Interdisciplinary Research and Practice for Social-Environmental Management. It is a foundational course designed to explore theories, methods and applications of interdisciplinary research among academic disciplinary fields in the biophysical, social sciences and humanities.

In addition to these new courses developed by and for the WIGF program, the Water Institute, as indicated above, provides administrative services to the Hydrologic Sciences Academic Cluster

(HSAC), an interdisciplinary graduate program designed to broaden the skills of science and engineering students who are interested in all aspects of water. There are over 200 HSAC alumni, as well as 55 current faculty members and 15 current graduate students from 7 departments and 3 colleges. Water Institute support services include coordinating HSAC faculty meetings; managing student applications to the program; maintaining an on-line database for HSAC student, faculty and meeting records; maintaining the HSAC course list; and maintaining the [HSAC website](#). In addition the Water Institute Director serves as a permanent voting member on the HSAC Faculty Coordinating Committee.

4.5.3 Travel Funding for Students

Water Institute Graduate Fellows benefit from international field experience and integrative activities that enhance interdisciplinary skills. The Water Institute provides funding (maximum \$25,000) for execution of integrative activities, all of which have involved travel. The 2011 WIGF cohort traveled to Costa Rica, the 2013 WIGF cohort traveled to Mexico and the Bahamas, and the 2015 WIGF cohort will travel to Brazil this June. In addition, five 2011 WIGF Fellows traveled to the 2015 American Geophysical Union conference in San Francisco California to present results of their Ph.D. research and knowledge gained from developing their undergraduate interdisciplinary class on Environmental Issues in Water Resources.

[A graduate student poster competition](#) is sponsored during each of the UF Water Institute Biennial Symposia, during which graduate students compete for \$1,000 awards to attend a professional conference to present their research. Since 2008, over 225 students have competed and a total of 15 students have won \$1,000 each in travel support.

4.6 Public Programs

The Water Institute contributes to public programs through collaboration with UF/IFAS Extension, which conducts public programs statewide that address critical water issues.

UF/IFAS Extension Water Initiative: Since 2012 the Water Institute has been assisting UF/IFAS Extension with implementation of its Water Initiative, a priority in the UF/IFAS Extension roadmap for 2013-2023. The goal of the IFAS Extension Water Initiative is enhancing and protecting water quality, quantity, and supply through public programming offered by Extension agents.

To help launch the Water Initiative, the Water Institute in 2012 planned and facilitated a 2-day [Extension Water Initiative Summit](#) that convened over 70 County and State Extension faculty, who developed an implementation plan for the Water Initiative. At the Summit, action teams were formed that subsequently developed action plans for 3 areas: water conservation, water quality, and public awareness of water issues.

Water Institute staff have served since 2012 as actively contributing members of the Water Initiative Leadership Team and of the Public Awareness team. Results have included development of an IFAS water website, a Delivery-Ready-Outreach-Plug In on laws protecting water quality, and a pilot Florida Waters Stewardship Program.

The Water Institute is planning and will facilitate a 1-day in-person Water Initiative team meeting this June to provide impetus and define resources needed to successfully complete implementation of the Water Initiative.

Water Resource Regional Specialist Agents – UF/IFAS is currently hiring 5 new Regional Specialized Agents (RSAs) who will focus their public programming on water-resource issues. The Water Institute will be facilitating the orientation of this new team to regional and statewide water-resource issues to enable them to develop timely and effective public programs across Florida.

In addition to collaborating with UF-IFAS Extension in their Water Initiative, the Water Institute facilitates the Florida Water and Climate Alliance ([FloridaWCA](#)), a stakeholder-scientist partnership committed to increasing relevance of climate-science data and tools at relevant time and space scales to support decision-making in water resource management, planning and supply operations in Florida. FloridaWCA collaborators and funders include NOAA, six major public water supply utilities, three Florida water management districts, local government representatives and several academic institutions.

4.7 Fund Raising

The Water Institute Director and staff work with UF Foundation Development Officers as they make themselves available to seek donors for Water Institute programs to augment funds from the Duke Energy, Carl S. Swisher and Sherwood L. Stokes endowments that currently help support Water Institute Programs.

In addition to managing funds from the above endowments, the Water Institute obtained \$67,625 in symposium sponsorships and \$95,000 in annual donations from the Carl S. Swisher Foundation.

4.8 Annual Reports

Annual reports submitted since the last 5-year Accomplishment Report can be found at the following links:

[June 2015 Annual Report](#)

[June 2014 Annual Report](#)

[June 2013 Annual Report](#)

[June 2012 Annual Report](#)