

**Application by The University of Connecticut to join the
North Atlantic Coast
Cooperative Ecosystems Studies Unit (NAC CESU)**

The University of Connecticut wishes to enroll in the CESU as a new nonfederal partner institution. We confirm that the University of Connecticut has read the CESU agreement and agrees to support the CESU mission and goals and fulfill the roles and responsibilities of a nonfederal partner, as described in the CESU agreement.

Description of the institution/organization.

Who we are.

The University of Connecticut (UConn) is the public, land grant university of the State of Connecticut and is currently ranked among the top 20 public universities in the United States. It consists of 14 schools or colleges with current enrollment of approximately 22,000 undergraduate students in 102 different majors and almost 8,000 graduate/professional students in 22 different fields of study or professional degrees. UConn is a research-intensive university; and as a land and sea grant institution, it is committed to active engagement and outreach with the larger community.

Location

The UConn system consists of the main campus located at Storrs, CT; five regional campuses at Avery Point, Greater Hartford, Stamford, Torrington and Waterbury, CT; and two professional schools located at Farmington, CT (The UConn Health Center) and Hartford, CT (Law School and School of Social Work). The majority of programs of interest to NAC CESU are located at Storrs and at the Avery Point Regional Campus (Marine Sciences and Coastal Studies programs) although the potential for collaboration exists with the other campuses. For example, the UConn Law School has a number of faculty involved in environmental law.

Our mission

The official mission statement of the University of Connecticut (UConn) is: *The University of Connecticut is dedicated to excellence demonstrated through national and international recognition. As Connecticut's public research university, through freedom of academic inquiry and expression, we create and disseminate knowledge by means of scholarly and creative achievements, graduate and professional education, and outreach. Through our focus on teaching and learning, the University helps every student grow intellectually and become a contributing member of the state, national, and world communities. Through research, teaching, service, and outreach, we embrace diversity and cultivate leadership, integrity, and engaged*

citizenship in our students, faculty, staff, and alumni. As our state's flagship public land and sea grant institution, we promote the health and well-being of Connecticut's citizens through enhancing the social, economic, cultural, and natural environments of the state and beyond.

The current UConn Academic Plan has three *Focused Area of Excellence*. One area is 'The Environment', which includes: *Environment and Human Health, Environment and Sustainable Ecosystems* and *Environment and Sustainable Energy*. The commitment to environmental issues and sustainability on the UConn campuses is shown by the recent recognition of UConn as the #1 Ranked "coolest school" by the Sierra Club. Also, the President of UConn, Dr. Susan Herbst, has appointed Dr. Gene Likens as Special Advisor to the President of the University to help advance environmental awareness on campus. The link to the academic plan is: <http://www.academicplan.uconn.edu/files/UConnAcademicPlan.pdf> .

For academic institutions, include a description of student demographics and the institution's status as a minority-serving institution (e.g., as defined by the U.S. Department of Education).

Description of student demographics

Current and past student demographics for the University of Connecticut are maintained by the Office of Institutional Research and Effectiveness (OIRE). The OIRE mission is to provide data and analysis to support the management, planning, evaluation and assessment functions of the University. The office fulfills this mission in a variety of ways and serves a wide range of "consumers" of information, both internal and external to the University. Data for various categories, including diversity, residence, degrees conferred, retention and graduation rates, etc. are available by semester for recent years at <http://www.oir.uconn.edu/OIRfactbook.html> .

Programs, departments, and centers of relevance to federal land management, environmental, and research agencies that will likely be engaged in CESU activities

Most of the expertise related to contributions to the NAC CESU consortium lies in three Colleges/Schools and one large Center at UConn: the College of Agriculture and Natural Resources (CANR); the College of Liberal Arts and Sciences (CLAS); the School of Engineering (SOE) and The Center of Environmental Sciences and Engineering (CESE). Descriptions of these institutions follow:

CANR. The mission of CANR is to develop knowledge and disseminate it through the three academic functions of teaching, research, and outreach education. This role is based in historic federal legislation including the Morrill, Hatch, Smith-Lever, McIntire-Stennis, and Animal Health

acts, and enabling state statutes. There are eight departments in CANR: Agricultural and Resource Economics (ARE), Allied Health Sciences, Animal Science, Extension (EXT), Natural Resources and the Environment (NRE), Nutritional Sciences, Pathobiology and Veterinary Science (PVS), and Plant Science and Landscape Architecture (PLSC). Although each department has potential for involvement in the CESU, the five Departments of ARE, EXT, NRE, PLSC and PVS, have the most relevant expertise related to ecosystem studies.

The ARE Department currently consists of 12 faculty. Its mission is to conduct and communicate the highest quality economic research to improve the viability of the food and fiber sector and protect and enhance the environment in the state, the nation, and the world. Although there are three areas of focus, the area most closely allied with the mission of the CESUs is *Environmental and Resource Economics* which includes the study of land, water, coastal resources, fisheries and aquaculture management and policy issues as well as environmental economic concerns and policies. Part of these activities are coordinated through the federally funded Connecticut Sea Grant Program. <http://are.uconn.edu>

The UConn EXT Department has a broad array of expertise that helps people gain the knowledge needed to help protect, preserve, conserve and restore the state's environment and natural resources. Outreach and education programs are offered to various audiences in: land use, water, resource restoration, forestry, tree wardens, geospatial information, fisheries and wildlife and atmospheric resources. <http://www.extension.uconn.edu/>

The NRE Department currently consists of 13 faculty with specializations in: forest, wildlife, and fisheries management, water resources, wetland conservation, and geodesy (surveying, remote sensing and GIS). Its mission is to provide high quality education, research and outreach in issues involving natural resource ecosystems. The Department houses several institutes/centers including: CT Institute of Water Resources, The Center for Landuse Education and Research (CLEAR), the Wildlife Conservation Research Center, and the Natural Resources Conservation Academy. Additional information is available at: <http://www.nre.uconn.edu/> .

The PLSC Department offers degree programs in Horticulture, Landscape Architecture, and Turfgrass and Soil Science and conducts research in a wide range of disciplines, including Horticulture, Landscape Architecture, Turfgrass Management, Soil Science, Plant and Microbial Molecular Biology, Plant Biotechnology, and Integrated Pest Management. <http://www.cag.uconn.edu/plsc/plsc/>

The PVS Department is the center for veterinary science on the Storrs Campus and is responsible for teaching, research, and extension programs concerned with infectious, metabolic, and toxic diseases of agricultural animals, companion animals, laboratory animals, pet birds, poultry, and wildlife. The Department consists of several units, including pathology, microbiology, virology, immunology, bacteriology, wildlife diseases, and microchemistry. The Department is involved with research in many areas of pathophysiology and provides service to the University and citizens of the State through the Veterinary Medical Diagnostic Laboratory. In addition, the current Director of the CT Sea Grant College Program (Dr. De Guise) is a faculty member in PVS. <http://www.patho.uconn.edu/>

CLAS. The principal departments of Liberal Arts and Sciences related to CESU's mission are Ecology and Evolutionary Biology (EEB), Geography (GEOG), and Marine Sciences (MARN). Several other departments have nationally –recognized faculty that would bring relevant expertise in the disciplines in both the natural and social sciences, e.g., Anthropology, Chemistry, Economics, Molecular and Cell Biology, Political Science and Statistics.

EEB is one of three departments in the Biological Sciences at the University of Connecticut currently consisting of 31 faculty members. Research in the department covers a wide range of fields, including behavioral ecology of vertebrates and invertebrates, systematics and evolution of plants and animals, population and community ecology, functional morphology and development, and conservation biology. A strong research program has given national recognition to EEB placing it among the top 10 programs in its area in the country. EEB also houses the Center for Conservation and Biodiversity whose primary goal is to promote research and training in the conservation of biodiversity on the local, national and international scene. <http://hydrodictyon.eeb.uconn.edu/eebwww/>

GEOG has about 20 faculty with research interests that include urban sprawl, the nature and impact of migration, globalization of the economy and international trade, the spatial prevalence of disease, regional development, climatic change, environmental degradation and restoration, watershed and landscape change, and the analysis and display of spatial data using geographic information systems (GIS) technology. <http://www.geography.uconn.edu>

The MARN Department is located on UConn's coastal campus at Avery Point, on the shores of Long Island Sound. Programs include the Marine Sciences, Coastal Studies and the Marine Sciences and Technology Center where faculty, staff, and students carry out cutting-edge

research in coastal oceanography using cross-disciplinary approaches.

<http://www.marinesciences.uconn.edu/>

SOE. The primary program in the SOE related to the CESU consortium is Environmental Engineering (ENVE) which consists of three core areas (tracks): (i) Biogeochemical processes (BGC); (ii) Air pollution and atmospheric processes (ATM); and (iii) Hydrogeosciences and engineering (HGS). <http://www.engr.uconn.edu/environ/>

CESE. The Center for Environmental Sciences and Engineering (CESE) at the University of Connecticut leads and promotes multidisciplinary research, education and outreach in environmental sciences, engineering, policy, and sustainability. Over 75 faculty members from the natural and social sciences, as well as from engineering and agriculture collaborate to advance the Center's mission. To advance this mission, the Center provides infrastructural support to the faculty via its Analytical Laboratories and Business Office, and supports graduate education via Graduate Fellowships and Summer Research Awards. In addition, CESE acts as a collaboratory and synthesis center for multidisciplinary research and graduate education.

<http://www.cese.uconn.edu/>

CT SEA GRANT. Sea Grant is a national network comprised of 30 Sea Grant programs based at flagship universities in coastal and Great Lake states throughout the U.S. and Puerto Rico. Connecticut Sea Grant works to achieve healthy coastal and marine ecosystems and consequent public benefits by supporting integrated locally and nationally relevant research, outreach and education programs in partnership with stakeholders.

<http://seagrants.uconn.edu/about/index.php>

Staff or faculty with expertise in disciplines and subject areas of relevance to federal land management, environmental, and research agencies by Department.

ARE:

Dr. Boris Bravo-Ureta, production economics and international agricultural development

Dr. Robert Pomeroy, fisheries & aquaculture development, coastal resource management

Dr. Farhed Shah, environmental and natural resource economics

Dr. Stephen Swallow, NR and envr. economics, ecosystem services, land-use policy

CESE:

Dr. Michael Willig,

EXT:

Mr. Chester Arnold, Water Resources Management, co-director CLEAR

Ms. Juliana Barrett, Coastal Habitat Management, Climate Change

Mr. David Dickson, Water Resources Management, National NEMO coordinator

Dr. Michael Dietz, Water Resources Management, CT NEMO Coordinator

Dr. Michael O'Neill, Water Quality
Dr. Robert Ricard, Human Dimensions of Natural Resources
Mr. Joel Stocker, Geospatial Technologies, Forest Management
Mr. Thomas Worthley, Forest Management and Stewardship

EEB:

Dr. Eldridge Adams, behavioral ecology, invasive species, insects
Dr. Robin Chazdon, forest restoration, ecosystems resilience, sustainability
Dr. Chris Elphick, conservation biology, agroecology, tidal marshes, climate change
Dr. Kent Holsinger, conservation biology, population genetics
Dr. Gene Likens, ecosystem ecology
Dr. Margaret Rubega, avian functional biology, conservation biology
Dr. Eric Schultz, fisheries biology, physiological ecology
Dr. John Silander, plant ecology & evolution, invasive species, climate change
Dr. David Wagner, insect conservation, systematics
Dr. Mark Urban, population & community ecology, climate change

ENVE:

Dr. Nelly Aboud,
Dr. Alexander Agrios,
Dr. Anagnostou Emmanouil
Dr. Marina Astitha
Dr. Amvrossios (Ross) Bagtzoglou
Dr. Maria Chrysochoou
Dr. Christine Kirchhoff
Dr. Baikun Li,
Dr. Lanbo Liu,
Dr. Allison MacKay,
Dr. Timothy Vadas,
Dr. Guiling Wang

GEOG:

Dr. Carol Atkinson-Palombo,
Dr. William Ouimet,
Dr. Anji Seth
Dr. Chuanrong Zhang,

MARN:

Dr. Peter Auster
Dr. James O'Donnell
Dr. Penny Vlahos,
Dr. Robert Whitlatch

NRE:

Dr. Richard Anyah, climatology, regional climate modeling
Dr. Daniel Civco, remote sensing, GIS
Dr. John Clausen, water quality, wetlands
Dr. Ashley Helton, biogeochemistry
Dr. Thomas Meyer, Geodesy, GIS, GPS, Survey
Dr. Isaac (Morty) Ortega, wildlife ecology
Dr. Chad Rittenhouse, landscape ecology
Dr. Tracy Rittenhouse, wildlife ecology
Dr. Gary Robbins, ground water hydrology, contaminate transport and remediation
Dr. Mark Rudnicki, forestry, forest mechanics
Dr. Jason Vokoun, freshwater fisheries

Dr. John C. Volin: ecosystem restoration and plant physiological ecology
Dr. Glenn Warner, watershed hydrology, ground water-surface water interactions
Dr. Xiusheng (Harrison) Yang, climatology, watershed modeling

PLSC:

Dr. Carol Auer, plant physiology,
Dr. Karl Guillard, Turf management, nitrogen fate in soils
Dr. Jason Henderson, turfgrass science
Dr. John Inguagiato, turfgrass pathology
Dr. Julia Kuzovkina, phytoremediation
Dr. Yi Li, horticulture biotechnology, Director New England invasive plant center
Dr. Thomas Morris, Soil testing, soil nutrients
Dr. Cristian Schulthess, soil chemistry

PVS:

Dr. Sylvain DeGuise, Director of Sea Grant,
Dr. Antonio Garmenia,
Dr. Steven Geary,

Profiles of each of these individuals are available at the web sites listed for each department or center above. The list is not all inclusive; many other researchers may have interest or could be called upon depending on the project.

The faculty of UConn can provide expertise in ecosystem studies over a wide range of physical, chemical and biological perspectives in both the field and laboratory. The laboratory facilities, infrastructure and support personnel in place at UConn offer faculty an efficient means of performing research at both field and laboratory levels. The cooperation among departments and centers or institutes and across different disciplines is well established, leading to interdisciplinary team efforts in addressing ecosystem problems. We have well established ties with state and federal agencies and research institutions permitting opportunities for development of applied solutions to environmental and social issues confronting our societies.

Description or list of facilities, equipment, centers, or institutes that would provide support to the research, technical assistance, or educational activities of relevance to federal land management, environmental, and research agencies that will be engaged in CESU activities.

The following centers, institutes, laboratories and centers provide a wide range of support for research, technical assistance and educational efforts for faculty who would be engaged in CESU activities. The academic unit where the institute or center is housed is indicated in parentheses.

The **Center for Conservation and Biodiversity (EEB)** works to promote research and training in the conservation of biodiversity on the local, national and international scene. Basic scientific

research is fostered along with applications to solving sustainable conservation issues. The Center provides support for graduate and undergraduate training and research in the fields of conservation, ecology, evolution and systematics. Additionally, the Center works to promote public support for conservation through its public outreach programs, especially workshops designed to bring the latest research advances to conservation professionals.

<http://hydrodictyon.eeb.uconn.edu/department/bioconctr/>

The **Center for Environmental Science and Engineering (CESE)** faculty members and students conduct research in a wide variety of environmental disciplines and focus on problems at local to global scales. Selected research projects are organized into a number of categories and can be seen by clicking on a particular category tab. Overall percentages for each category are shown below. Projects include basic and applied topics in terrestrial, freshwater and marine environments. Many use multidisciplinary approaches from hydrological, atmospheric, soil, or biological sciences, apply engineering approaches to provide technological solutions, or explicitly address agricultural systems and management strategies that lead to long-term sustainability. CESE's spacious, state-of-the-art laboratories provide a full range of services in the development of analytical methods and analytical testing to support research by faculty, government, and industry. Staffed by experienced professionals, the laboratories are equipped with advanced instrumentation and equipment. CESE performs physical and chemical analyses for persistent and nontraditional environmental pollutants in ambient air, atmospheric deposition, biological tissue, surface water (both saline and fresh), ground water, sediment, soil, and hazardous waste. Detailed descriptions of services provided for analyses of metals, nutrients, biofuels and organics as well as sampling services can be found at

http://www.cese.uconn.edu/analyt_serv.html .

The **Center for Landuse Education and Research (CLEAR)** (NRE) provides information, education and assistance to Connecticut's land use decision makers, community organizations and citizens on how to better protect natural resources while accommodating economic growth. CLEAR is comprised of several outreach and research programs including NEMO, Land Use Academy, Geospatial Training and LERIS. <http://clear.uconn.edu/>

Center for Integrative Geosciences. (CLAS) The mission of the new Center for Integrative Geosciences at UConn is to offer trans-disciplinary programs of instruction and research that advance understanding of the interaction of biological, chemical, geological, and physical processes, including feedback mechanisms, at all spatial and temporal scales. It centers around the processes that have shaped the Earth through geologic time, continue to shape the environment today, and which provide the basis for understanding the present and future impact of human activity on the planet. <http://earth.uconn.edu/>

The **CT Institute of Water Resources** (NRE) is part of a national network of 54 state water institutes created by the Federal Water Resources Research Act of 1964. The general purpose of the institutes is the promotion of water resources research and information transfer. In Connecticut, our goals are to conduct and arrange for water resources research and cooperate with Connecticut higher education institutions to develop programs to resolve state and regional water, watershed, and related upland issues. <http://www.ctiwr.uconn.edu/>

The **CT State Climate Center** (NRE) is one of the NCDC (National Climatic Data Center) and AASC (American Association of State Climatologist) recognized State Climate Office, and as a center for public service provides climatic data for the State of Connecticut from various

sources. Active collaborations are with national and regional climatic centers, federal and state agencies, and various educational institutions. <http://www.canr.uconn.edu/nrme/cscc/>

The vision of the **Connecticut State Museum of Natural History (EEB)** is focused not only on passing knowledge to future generations, but on applying this knowledge to solve problems and improve the quality of people's lives. The Museum's natural history collections are a library of physical and biological data that scientists and scholars use to better understand our world, and important educational tools to share research and scholarship with students and the general public. The biological collections of the Museum are part of the University's broader collections. The Systematic Research Collections in EEB contain hundreds of thousands of specimens of mammals, birds, insects, invertebrates, fossils, plants, fish and parasites. <http://www.cac.uconn.edu/mnhcollections.html>

The **CT Veterinary Medical Diagnostic Laboratory (PVS)** which monitors the health status of the State's animal population, including infectious and toxicologic diseases of wildlife and animal diseases transmissible to humans such as Rabies, Lyme Disease, Salmonella and toxic agents. <http://cvmdl.uconn.edu/>

The **Invasive Plant Atlas of New England's (EEB)** mission is to create a comprehensive web-accessible database of invasive and potentially invasive plants in New England that will be continually updated by a network of professionals and trained volunteers. The database will facilitate education and research that will lead to a greater understanding of invasive plant ecology and support informed conservation management. An important focus of the project is the early detection of, and rapid response to, new invasions. <http://www.eddmaps.org/ipane/>

The **Natural Resources Conservation (NRC) Academy (NRE)** is an innovative program in conservation and land use planning targeted toward Connecticut high school students. Students participating in the NRC Academy will be educated in a wide range of topics related to natural resources and the environment, including units on climate, water, wetlands, wildlife, landscape ecology and habitat protection. <http://nrca.uconn.edu/>

The **New England Invasive Plant Center (PLSC)** is a multi-state (CT, ME, VT), interdisciplinary program to develop novel and effective technologies to address problems caused by invasive plants that are economically and environmentally damaging to New England and to the nation as a whole. Program areas include development of sterile landscape plants, assessment of ecological and economic impacts of invasive plants and alternative native corps. <http://www.invasivecenter.uconn.edu/>

The **Water Resources Field Station (WRFS) (NRE)** is located on the Storrs, CT campus of UConn and consists of laboratories and a well field for monitoring the depth and chemistry of ground water. The WRFS has been used to help train state agency personnel in drilling; and undergraduate and graduate students in conducting direct push drilling, soil coring and logging, surveying with conventional and GPS equipment, geophysical surveying, conducting downhole camera inspections, and conducting ground water level measurements and hydraulic testing. <http://www.water.uconn.edu/wrfs/wrfs.htm>

The **Wildlife and Fisheries Conservation Center (NRE)** is comprised of UConn faculty, adjunct faculty members who work within the wildlife and fisheries divisions of our state's natural resources agency, and graduate and undergraduate students who conduct scientific research to

better understand wildlife and fish populations and the ways they are interacting with human society. Some of the critical issues that current projects are addressing include; wildlife and fish conservation in populated areas, rare species and threatened habitats, the changing climate, and the consequences of contaminants in the environment. <http://wfcc.uconn.edu/>

The **UConn Soil Nutrient Analysis Laboratory (PLSC)** provides: 1) inexpensive means for both agricultural producers and home owners to test their soil fertility and receive environmentally sound limestone and fertilizer recommendations, 2) education through outreach efforts so that clients and the public are being informed about wise soil management and fertility practices, and 3) analyses of research samples for University faculty and graduate students and serves as a teaching laboratory. <http://www.soiltest.uconn.edu/>

The **Zwick Center for Food and Resource Policy (ARE)** performs quantitative and policy oriented economic research on problems confronting food and energy markets, the use of natural resources, and the environment. The intent is to provide practical recommendations to improve the functioning of markets and related government policies and to advance and disseminate knowledge that impacts public policies to improve society's welfare. <http://www.zwickcenter.uconn.edu/>

Description or list of past research, technical assistance, and educational services supported through federal financial assistance awards that are of relevance to federal land management, environmental, and research agencies that will be engaged in CESU activities.

Table 1 lists examples of current research projects by various faculty at UConn for Federal agencies that are partners in the NAC CESU. Many other researchers in the list of staff or faculty above have had related projects in the past, or have current projects funded by agencies not listed as partners, e.g. EPA, NSF, etc., and not all projects have been listed for the faculty in Table 1.

Faculty	Agency	Title of Grant/Contract	Amount
Auer, Carol A	USDA NIFA	Perennial Grasses for Bioenergy: Pollen Aerobiology, Biocontainment and Plant Genetics	\$306,023
Barrett, Juliana	DOC NOAA	Stormwater Management as a Climate Change Adaptation Strategy, Bridgeport, CT	\$30,000
Barrett, Juliana	DOC NOAA	Surge, Flooding and First Responders: Preparing for the Next Major Coastal Storm	\$50,000
Deguisse, Sylvain	DOC NOAA	Determining Relative Susceptibility of Monk Seal, Northern Fur Seal, California Sea Lion, Elephant Seal and Pacific Harbor Seal to PDV using an in vitro Approach	\$30,000
Deguisse, Sylvain	DOC NOAA	Evaluation of Immune Functions in Free-Ranging Bottlenose Dolphins in Support of Health Assessmnts 2013	\$116,175

Deguisse, Sylvain	DOC NOAA	Natural Resource Conservation Issues for Regional Ocean Planning in New England	\$75,000
Deguisse, Sylvain	DOI U.S. FWS	Sea Turtle Immunology	\$56,903
Deguisse, Sylvain	DOC NOAA	The Coastal Storm Awareness Program - Connecticut Sea Grant Component	\$610,666
Dietz, Michael	DOC NOAA	Encouraging Rain Gardens as Climate Change Adaptation Tools: Creating a Rain Garden "App" for the iPhone	\$30,000
Elphick, Christopher	DOI U.S. FWS	The Conservation of Tidal Marsh Birds: Prioritizing Action at the Intersection of our Changing Land and Seascapes	\$127,977
Geary, Steven J	DOD/Defense Threat Reduct Agency	Investigating the Essential Role of Host Proteins in Poxvirus Pathogenicity	\$952,936
Kuzovkina-Yulia	DOE	Willow Biomass Crop Feedstock Development Plan for the Northeast and Midwest U.S.	\$135,000
Li, Baikun	DOD/Navy Off. of Naval Res.	Distributed Active Underwater Microbial Fuel Cell (DA-MFC) for Durable, Efficient and Reliable Power Generation	\$471,205
Morris, Thomas F	USDA NRCS	Environmental Quality Incentives Program Technical Assistance, Nutrient Management Planning	\$15,000
O'Donnell, James	DOC NOAA	2010 MARCOOS - Mid Atlantic Regional Association Coastal Ocean Observing System	\$1,025,297
O'Donnell, James	DOC NOAA	Continued Development of the Northeastern Regional Association of Coastal Ocean Observing Systems	\$1,363,177
Rittenhouse, Tracy	DOI U.S. FWS	Genetic Mark-Recapture Population Estimate for Black Bears in CT	\$281,380
Rubega, Margaret	DOI U.S. FWS	Inventory and Assessment of Greatest Conservation Need Avian Species	\$69,958
Seth, Anji	DOC NOAA	In-Depth Regional Process-level Analyses of NARCCAP and AR5 simulations over North America: Towards Establishing Differential Credibility of Future Regional Climate Simulations	\$236,631
Vadas, Timothy	DOI USGS	Influence of Anthropogenic Carbon Inputs to Streams on Trace Metal Bioavailability	\$18,007
Vokoun, Jason	DOC NOAA	Comparisons of Fished and Unfished Largemouth Bass Populations: Metabolism, Angling Vulnerability, and Potential for Mitigative Supplemental Stocking	\$120,000
Wang, Guiling	DOE Marine Biological Lab	Hydraulic Redistribution of Water through Plant Roots - Implications for Carbon Cycling and Energy Flux at Multiple Scales	\$226,534
Worthley, Thomas	USDA Forest Serv	Early Detection Rapid Response (EDRR) Insect Survey	\$20,000
Worthley, Thomas	USDA Forest Serv.	Emerald Ash Borer 2013 Monitoring Project	\$27,630

List of current formal agreements and informal relationships with federal agencies that are of relevance to federal land management, environmental, and research agencies that will be engaged in CESU activities.

Table 2 lists examples of recent cooperative agreements by faculty at UConn with Federal agencies that are partners in the NAC CESU.

Table 2. Recent Cooperative Agreement between UConn Faculty and Federal Agencies.

Faculty	Agency	Agreement Dates	Title of Project	Amount
Arnold Jr, Chester L	EPA and CT DEEP	5/1/2002 12/31/2004	Nonpoint Education for Municipal officials (NEMO) Regional, Town and Watershed Programs	\$100,000
Garmendia, Antonio E	USDA ARS	9/25/2002 9/1/2007	Examination of the Immune Response and Pathogenesis in Swine to Foot-&-Mouth Disease Virus, Vesicular Stomatitis Virus and Porcine Reproductive Respiratory Syndrome Virus as means of Developing Improved Control Measures	\$541,000
Garmendia, Antonio E	USDA ARS	9/1/2007 8/31/2011	Immune Response and Pathogenesis in Swine to Foot-and-Mouth Disease Virus, Vesicular Stomatitis Virus, and Porcine Respiratory and Reproductive Syndrome Virus	\$243,965
Geary, Steven J	USDA ARS	4/10/2000 4/9/2005	Advanced Vaccine Research	\$3,558,332
Geary, Steven J	USDA ARS	9/15/2002 7/31/2006	Development of a Rapid Real-Time PCR Based Assay for Contagious Bovine Pleuropneumonia (CBP) (Polymerase Chain Reaction)	\$388,811
Geary, Steven J	USDA ARS	8/1/2003 7/31/2007	Testing Anti-Viral Compounds in Combination With Vaccines Against Foot-And-Mouth Disease Virus (FMDV) as Outbreak Intervention Tools	\$100,000
Geary, Steven J	USDA ARS	4/10/2005 6/30/2008	Advanced Animal Vaccine and Diagnostics	\$2,059,968
Liu, Lanbo	DOI USGS	5/31/2017	Cooperative Hydrogeophysics and Water-Resources Research	\$218,027
Liu, Lanbo	DOI USGS	6/1/2002 5/31/2007	USGS - UConn Cooperative Agreement to Establish an office for the USGS-WRD Branch of Geophysics on the UConn Campus	\$225,148
Liu, Lanbo	DOI USGS	6/1/2007 5/31/2012	USGS OGW/BG - UCONN Cooperative Agreement	\$287,602

Schultz, Eric T	DOI and CT DEEP	1/1/2003 6/30/2005	Assessment of Alewife and Blueback Herring Populations in Connecticut Coastal Streams and Connecticut River Tributaries	\$113,081
Schultz, Eric T	DOI and CT DEEP	1/1/2005 12/31/2008	Predator-Prey Interactions of Striped Bass and River Herring in the Connecticut River	\$230,233
Stocker, Joel W	USDA For Serv	7/1/2005 11/30/2006	Natural Resources and Land Use Data – Connecticut Highlands.	\$74,510
Vokoun, Jason	DOI and CT DEEP	1/1/2005 5/31/2007	State-Endangered Burbot in Northwestern Connecticut: Investigation of Habitat Use and Population Demographics	\$89,764
Wagner, David L	USDA For Serv	5/15/2001 5/15/2003	Caterpillars of Southeastern Forests	\$20,000
Wagner, David L	DOI U.S. FWS	5/30/2000 12/31/2003	The Sand Dune Communities of the Connecticut River Valley	\$12,500
Warner, Glenn S	DOI and CT DEEP	1/1/2005 12/31/2007	Validation of In-Stream Habitat Models for the Fenton River, Storrs, CT	\$83,078
Worthley, Thomas E	USDA NRCS	7/20/2011 9/30/2013	NRCS Special Watershed Action Team (SWAT) Forest Management Planning Project	\$160,000

In addition, UConn has many informal working relationships with different federal agencies. Examples of established relationships include: 1) CT IWR with the USGS CT Water Science Center, 2) the CT Veterinary Medical Diagnostic Laboratory with USDA-Agricultural Research Service (including a number of cooperative agreements for specific research) regarding infectious and toxicologic diseases of wildlife and animal diseases investigations, 3)

Confirmation of the institution's/organization's willingness to accept a limited overhead:

The University of Connecticut by signing below confirms that it is willing to accept a limited overhead rate of 17.5% and cost items to which the rate is applicable for all activities conducted through the CESU.

Designation of a technical representatives:

The NAC CESU points of contact for UConn are:

Dr. John Volin, Professor and Head
Natural Resources and the Environment
1376 Storrs Rd. Unit 4087
The University of Connecticut
Storrs, CT 06269-4087

Phone: (860) 486-2840 Fax: (860) 486-5408

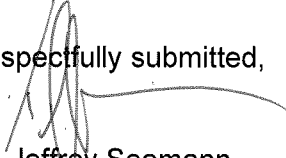
Dr. Glenn Warner, Professor
Natural Resources and the Environment
1376 Storrs Rd. Unit 4087
The University of Connecticut
Storrs, CT 06269-4087
Phone: (860) 486-0140 Fax: (860) 486-5408

Dr. Michael Willig, Professor, Director
Center for Environmental Sciences and Engineering
3107 Horsebarn Hill Road, U-4210
The University of Connecticut
Storrs, CT 06269-4210
Phone: (860) 486-4015 Fax: (860) 486-5488

Agreement to relay agency-specific research, technical assistance, and educational needs and associated funding opportunities:

I hereby confirm that the University of Connecticut has read the CESU agreement and agrees to support the CESU mission and goals and fulfill the roles and responsibilities of a nonfederal partner, as described in the CESU agreement. The University of Connecticut agrees to relay agency-specific research, technical assistance and educational needs and associated funding opportunities to other institutional/organizational members, including faculty and students.

Respectfully submitted,


Dr. Jeffrey Seemann
Vice President for Research