

Sustainable Jersey® Small Grants Application Background Information Form & Checklist

Please include page A and B of this form at the beginning of your application.

Municipality background Information

Municipality:	HAMILTON
County:	MERCER
Population:	88,464
Setting (urban, suburban, rural):	ALL 3

Is your town currently registered with Sustainable Jersey? (Note: All applicants must be registered with the program by date of submission. For more information on how to register, visit: http://sustainablejersey.com/registration.php)	Yes	X
	No	
Does your municipality have an active Green Team? (Note: All applicant communities must have an active Green Team. To view the requirements of an active Green Team please click here , or see the Application Checklist below)	Yes	X
	No	

Is your municipality currently Sustainable Jersey Certified? If yes, at what level?	NOT YET
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Did your municipality receive a Sustainable Jersey small grant in previous years? If yes, which year(s) and at what level?
YES, 2012 Sustainable Jersey Small Grant Application for \$2,000.00

Grant Application Information

For what grant level are you applying?	\$10,000.00
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Project Title (Not mandatory)	Rain Garden Demonstration Project and Water Conservation Education Program
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Please provide a brief (2-5 sentences) description of your project.
The Hamilton Township Green Team will work with the Rutgers Cooperative Extension (RCE) Water Resources Program to assess sites throughout Hamilton Township and identify potential rain garden opportunities. In addition, the Green Team will facilitate three (3) Water Conservation Education programs in the form of "Build a Rain Barrel" workshops for residents of Hamilton Township.

Sustainable Jersey Action(s) that will be completed through grant. All \$10,000 and \$20,000 grants projects must fulfill a Sustainable Jersey Action. Please be sure to check the "What to do" and the "What to submit" section of each action to verify the project can fulfill the action requirements. Actions that would be "innovative demonstrations projects" are also eligible and will be judged based on their ability to model or improve the current slate of Sustainable Jersey Actions. All requirements can be viewed at: http://sustainablejersey.com/actionlist.php . \$2,000 capacity-building grants do not have to complete an action if only seeking general support funds.	
1. Innovative Demonstration Project	4.
2. Natural Resources: Water Conservation Education Program	5.

3.	6.

Sustainable Jersey® Small Grants Application Contacts

Primary Municipal Contact NOTE: The grant application decision and follow-up will be directed to this contact.

Name	ROBERT C POPPERT
Title	TOWNSHIP PLANNER
Affiliation	HAMILTON TOWNSHIP
Address	2090 GREENWOOD AVENUE, HAMILTON NJ 08650
Phone	609-890-3645
Email	rpoppert@hamiltonnj.com

Please list any additional municipal or Green Team contacts for the grant. Include key elected officials and any staff contacts

Name	Title	Phone	Email
Richard Williams, PE	Township Engineer	609-890-3636	rwilliams@hamiltonnj.com
Mike Angaronne	Director, Economic Dev.	609-890-3519	mangaronne@hamiltonnj.com
Mike Guhanick	Land Use	609-890-3680	mguhanick@hamiltonnj.com
Lester Finch	Chair, Environmental Commission		courtjok@optonline.net
Dominic DeGregory	Aide to Mayor	609-890-3834	ddegregory@hamiltonnj.com
Rob Benjamin	Environmental Commission		Robert.benjamin@greenwords.net
Clint Griggs	Environmental Commission		Griggs415@yahoo.com
Dave Carothers	Director, DPW	609-586-3111	dcarothers@hamiltonnj.com

Fiscal Contact name and mailing address where grant check will be sent.*

Name:	JOHN BARRETT
Title:	CFO
Phone:	609-890-3510
Email:	jbarrett@hamiltonnj.com
Mailing Address:	2090 GREENWOOD AVE HAMILTON NJ 08650

Media Contact A municipal employee or affiliate that we contact for coordinating press/media events

Name:	DOMINIC DEGREGORY
Title:	MAYOR'S AIDE
Phone:	609-890-3834
Email:	ddegregory@hamiltonnj.com

Mayor's Information (The mayor may be directly invited to a press conference or other speaking engagement)

Name:	KELLEY YAEDE
Phone:	609-890-3507
Email:	mayor@hamiltonnj.com

Additional Contact for Mayor (Secretary, assistant, aide etc.)

Name:	
Title:	
Phone:	
Email:	

Hamilton Township – 2013 Sustainable Jersey Small Grant Application

Rain Garden Demonstration Project and Water Conservation Education Program

1. PROPOSAL NARRATIVE

a. Municipal Contact:

Robert Poppert, PP, AICP, Township Planner – Hamilton Green Team

Phone: (609) 890-3674

Fax: (609) 890-3537

Email: RPoppert@hamiltonnj.com

Address: Department of Community Planning and Compliance
Township of Hamilton
2090 Greenwood Avenue
Hamilton, NJ 08650-0150

Kelly Yaede, Mayor – Hamilton Township

Phone: (609) 890-3507

Fax: (609) 890-3537

Email: mayor@hamiltonnj.com

Address: Office of the Mayor
Township of Hamilton
2090 Greenwood Avenue
Hamilton, NJ 08650-0150

b. Sustainable Jersey Action(s):

Innovative Demonstration Projects: Raingardens (10 Points)

Natural Resources: Water Conservation Education Program (10 Points)

c. Grant Category:

\$10,000

d. Project Description:

Task 1 – Rain Garden Educational Opportunity and Demonstration Project

The Hamilton Township Green Team will work with the Rutgers Cooperative Extension (RCE) Water Resources Program to assess sites throughout Hamilton Township and identify potential rain garden opportunities. Rain gardens are designed to manage stormwater runoff from rooftops as well as from driveways, lawns, roads, and parking lots. Rain gardens are planted as perennial gardens, but they are much more. During a storm, a rain garden fills with water, allowing the water to slowly filter into the ground rather than running into storm sewers. By capturing stormwater, rain gardens help to reduce nonpoint source pollution (i.e., road sediment/salt, fertilizers, pesticides, bacteria from pet waste, eroded soil, grass clippings, litter, etc.) and help to protect local waterways. Rain gardens also add beauty to neighborhoods and provide habitat for desirable wildlife including butterflies and songbirds.

The RCE Water Resources Program has developed the Stormwater Management in Your Backyard (SWMIYB) extension education program to address nonpoint source pollution by training homeowners and landscape professionals throughout New Jersey about stormwater best management practices (BMPs). Specifically, rain gardens have been identified as a cost effective BMP that can be readily implemented by homeowners, as well as by landscape professionals, to quickly achieve reductions in runoff volume and nutrient loading. The educational components of the SWMIYB program have resulted in a greater interest in and understanding of the water resources issues facing our State's watersheds. Over the last few years, the RCE Water resources Program has worked through grant partnerships to deliver these programs to local communities throughout New Jersey.

The Hamilton Green Team proposes to partner with the RCE Water Resources Program to deliver a half-day rain garden classroom workshop providing the tools residents and local landscape contractors in Hamilton need to design and install rain gardens. In addition to the classroom training, we will have participants assist with installation of a rain garden. The location of the rain garden will be at a publicly agreed-upon location chosen in partnership with the RCE Water Resources Program. This will provide a hands-on opportunity to learn about rain garden construction.

Hamilton Township with support from the RCE Water Resources Program will prepare appropriate design and construction plans for one (1) proposed rain garden in Hamilton Township. The designs will focus on capturing and infiltrating stormwater runoff from the New Jersey Water Quality Storm Event and use New Jersey native plant species that require little irrigation and maintenance once established. Hamilton Township will provide equipment and labor through its Department of Public Works to excavate and prepare the rain garden site and RCE Water Resources Program staff will coordinate the rain garden installation.

This program will target residents and local landscape contractors to educate them on the installation of rain gardens on public, commercial, and residential properties throughout Hamilton Township. It will inform stakeholders on the need to protect our surface waters, recharge our groundwater supplies, install stormwater BMPs, and implement low-water use landscapes to conserve drinking water and protect freshwater resources.

Task 2 – Water Conservation Educational Programs

In addition, the Green Team will facilitate three (3) Water Conservation Education programs in the form of "Build a Rain Barrel" workshops for residents of Hamilton Township. Using recycled food-grade 55 gallon drums, the Green Team and RCE Water Resources Program staff will lead interested homeowners in building a rain barrel for use at their home. This program has worked successfully in Hamilton and throughout New Jersey with participants registering and paying a fee for materials but with costs kept to approximately ¼ of retail rain barrel prices. The workshop includes presentations on water conservation techniques as well as the savings and sustainable actions needed by everyone to ensure plentiful drinking water.

These programs will target the installation of rain barrels on residential properties throughout Hamilton Township. They will educate stakeholders on the need to protect our surface waters, install stormwater BMPs, and implement rainwater harvesting to conserve water.

e. Impact:

The overall project goal is to implement educational and training programs within the community that will change the behavior of residents, officials, municipal employees, and contractors while implementing BMPs that will reduce nutrients and sediment in stormwater runoff and conserve drinking water. Educational materials developed and used for these programs will be distributed to all participants as well as made available through the Hamilton Township website (<http://www.hamiltonnj.com/>) and the RCE Water Resources Program website (<http://water.rutgers.edu/>). Signage will be placed at the rain garden location informing visitors about rain gardens and directing them to additional information and resources.

f. Budget:

The Hamilton Green Team is requesting \$10,000 in funding to cover the costs for this rain garden demonstration project and the rain garden and rain barrel education programs (see attached budget details).

The Hamilton Green Team is requesting \$3,500 in funding to cover the costs of hosting three (3) “Build a Rain Barrel” workshops for Hamilton residents. These funds will be used to pay the RCE Water Resources Program’s costs involved with organizing these workshops, which includes a \$500 educational program fee per workshop (Total (3 workshops x \$500) = \$1,500). These costs include time for RCE Water Resources Program staff handling registration and providing a flyer for advertisement of the event, costs encountered to prepare the barrels for the workshop, tools and materials used to build the barrels at the workshop, delivery of the barrels to the venue, and their time presenting and organizing the workshops.

The RCE Water Resources Program usually charges \$45 per barrel when conducting “Build a Rain Barrel” workshops. To provide these rain barrels at a reduced cost, \$2,000 of the funds awarded through this grant will subsidize the cost per barrel fee. There will be a target of 100 rain barrels distributed between the three (3) workshops in which Hamilton residents will only be required to pay \$25 per barrel (Total (\$20 subsidy x 100 barrels) = \$2,000).

g. Timeline:

Water Conservation Education/Rain Barrel Workshop (Workshop 1)	April 2014
Water Conservation Education/Rain Barrel Workshop (Workshop 2)	May 2014
Water Conservation Education/Rain Barrel Workshop (Workshop 3)	June 2014
Rain Garden Training Workshop	April/May 2014
Rain Garden Installation	May 2014

h. Evaluation:

The targeted outcomes focus on behavior changes through increased knowledge and understanding of water resources impacts and water conservation and BMPs for minimizing these impacts. Local

residents, officials, public employees, and contractors will have the knowledge and skills to implement rain barrels and rain gardens to mitigate impacts of stormwater, nonpoint source pollution and also conserve drinking water. During all events, participants will be asked to complete pre and post surveys to gauge the knowledge participants have of the issues prior to participating and what information and knowledge was gained by participants as a result of the program. The results of these surveys will be summarized and included in the final report issued for the project. In addition, follow up site evaluations will be conducted at the rain garden every three months for the first year following installation. Information gathered during these inspections will be used to determine appropriate use and execution of the rain garden design and to set forth necessary maintenance steps. Standard inspection forms will be used to assess function and success of the installation and will be provided in the final report for the project.

2. REQUIRED ATTACHMENTS

a. Detailed Budget (see attached itemized breakdown of rain garden materials)

Task 1 – Rain Garden Educational Opportunity and Demonstration Project

Rain Garden Materials/Supplies	\$2,000
Educational Materials, Signage, and Promotional Materials	\$500
Professional Services (RCE Water Resources Program): site visits and evaluation, rain garden design and planting plan, conduct education program, coordinate supplies, and oversee construction	\$4,000

Task 2 – Water Conservation Educational Programs

Professional Services (RCE Water Resources Program): coordinate promotion and registration, conduct three (3) workshops, and prepare and deliver rain barrels and supplies	\$1,500
Rain Barrel Subsidy for Workshop Participants (\$20/participant X 100 participants)	\$2,000
TOTAL:	\$10,000

b. Resumes/Bios for Key Project Personnel

Hamilton Green Team Membership

Efforts under this grant program will be facilitated and directed by Robert Poppert, Chair of the Hamilton Green Team, with assistance from members of the Green Team:

Robert C Poppert, PP, AICP – rpoppert@hamiltonnj.com

Richard Williams, PE - rwilliams@hamiltonnj.com

Dave Carothers – dcarothers@hamiltonnj.com

Mike Angaronne – mangaronne@hamiltonnj.com

Mike Guhanick – mguhanick@hamiltonnj.com

Lester Finch, Environmental Commission Chairman

Dominic DeGregory, Office of the Mayor

Rob Benjamin, Environmental Commission

Clint Griggs, Environmental Commission

Rutgers Cooperative Extension Water Resources Program

Over the past five years, the RCE Water Resources Program has led efforts throughout New Jersey to train and educate constituents in all aspects of rain garden benefits, design, and installations. The Rain Garden Certification Program consists of two options for certification: Rain Garden Specialist (RGS) and Rain Garden Specialist and Trainer (RGST). The Rain Garden Certification Program has been conducted in South, Central, and North New Jersey as part of a Stormwater Management in Your Backyard program. This program encourages members of the environmental and gardening communities to come together to learn about rain gardens. The Rain Garden Certification Program offers its participants a one-day classroom training and a half-day hands-on training, where the participants construct a rain garden together. For those interested in obtaining RGST status, an additional half day of "Train-the-Trainer" materials are provided. To obtain RGS or RGST status, the participants are required to pass an online test with a score of 80% or higher. Upon successful completion of the RGS and RGST training and online test, the participants receive a RGS or RGST Certificate from the New Jersey Agricultural Experiment Station - Rutgers Cooperative Extension. The RGS and RGST participants are required to participate in a RGS or RGST refresher course every two years and participate in follow-up surveys to maintain their certification. The RGS and RGST participants are encouraged to attend advanced rain garden training held by Rutgers Cooperative Extension, develop and sustain a RGS and RGST association, develop and sustain a RGST Speaker's Bureau, and start their own rain garden small business.

The RCE Water Resources Program, in cooperation with Environmental County Agents throughout the State, has developed and is sponsoring educational workshops giving participants the opportunity to not only learn about how to be better stewards of their watershed, but to also have a hands-on opportunity to build their own BMP. In an afternoon RCE staff will lead participants through a short lecture and program about stormwater BMPs and then guide them as each participant builds their own rain barrel to take home. All materials and tools are provided to convert a 55-gallon plastic food grade barrel into a functional rain barrel with a working hose spigot. Currently the program has completed 36 workshops since 2009 with many of these events being sold out and a total of over 1,030 rain barrels constructed by participants throughout the State.

Resumes for RCE Water Resources Program staff supporting this effort are attached with this application.

Christopher C. Obropta, Ph.D., P.E. - Extension Specialist
Jeremiah D. Bergstrom, LLA, ASLA – Senior Project Manager
Sara Mellor – Program Associate
Steve Yergeau – Senior Program Coordinator

c. Township Resolution

DRAFT RESOLUTION IS ATTACHED HERETO – A FULLY AUTHORIZED AND SIGNED ORIGINAL RESOLUTION WILL BE FORWARDED UNDER SEPARATE COVER AFTER OUR NEXT COUNCIL MEETIGN ON AUGUST 20, 2013.

d. Grantee's Certification and Declaration

SEE ATTACHED SIGNED BY ROBERT C POPPERT, PP, AICP, TOWNSHIP PLANNER

ITEMIZED COSTS FOR RAIN GARDEN MATERIALS

Estimated Costs for materials (1,000 sq. ft. Rain Garden)

ITEM	QUANTITY	UNIT	UNIT COST	TOTAL
Coarse Sand/Bank Run Sand	4	Cubic Yard	\$45.00	\$180.00
Topsoil or Compost	4	Cubic Yard	\$25.00	\$100.00
Mulch	8	Cubic Yard	\$25.00	\$200.00
River Stone	1	Cubic Yard	\$80.00	\$80.00
Herbaceous Perennials (quart)	150	Each	\$2.50	\$375.00
Shrubs (1 or 2 gallon container)	12	Each	\$7.50	\$90.00
Trees (1-2" Cal., Container or B&B)	6	Each	\$75.00	\$450.00
Delivery Fees				\$525.00
TOTAL Budget				\$2,000.00



CURRICULUM VITAE

CHRISTOPHER C. OBROPTA, Ph.D., P.E.

Associate Extension Specialist in Water Resources, Rutgers Cooperative Extension

Associate Professor in Environmental Sciences

Rutgers, The State University of New Jersey

14 College Farm Road • New Brunswick, NJ 08901-8551 • USA

Phone: 848/932/5711 • Fax: 732/932/8644

obropta@envsci.rutgers.edu

EDUCATION

Ph.D., Civil Engineering, 2002, Stevens Institute of Technology, Hoboken, NJ

Advisor: R.I. Hires

- Dissertation: "Development of a Dynamic Mixing Zone Model to Simulate the Discharge of Treated Effluent into a Marine Environment"

M.S., Civil Engineering, 1989, New Jersey Institute of Technology, Newark, NJ

Advisor: M.S. Bruno

- Thesis: "Sediment Transport/Sand Bypassing Analysis at Manasquan, New Jersey"

B.S., Civil Engineering, 1988

New Jersey Institute of Technology, Newark, NJ

- Magna Cum Laude

PROFESSIONAL EXPERIENCE

July 2008–present: Associate Extension Specialist in Water Resources with Rutgers Cooperative Extension, Associate Professor in Environmental Sciences

July 2002–July 2008: Assistant Extension Specialist in Water Resources with Rutgers Cooperative Extension, Assistant Professor in Environmental Sciences

Rutgers University, New Jersey Agricultural Experiment Station, New Brunswick, NJ

Percent Appointment: 60% RCE (Extension), 30% AES (Research), 10% IDR (Teaching)

Responsibilities currently include:

- Developing and managing the Water Resources Program for Rutgers Cooperative Extension and the New Jersey Agricultural Experiment Station that contains research, education and extension components in five focus areas: Water Resources Research, Stormwater Management, Onsite Wastewater Treatment System Management, Total Maximum Daily Load (TMDL) Development & Implementation, and Water Resources for Sustainable Communities.
- Securing grants and conducting research and extension activities in the five main focus areas.
- Conducting research on the development of Regional and Municipal Stormwater Management Plans.
- Leading a TMDL Advisory Panel to provide better science to the New Jersey Department of Environmental Protection (NJDEP).
- Conducting research on stormwater best management practices (BMPs).
- Educating municipalities on septic system management strategies.
- Teaching Bioresource Engineering Senior Design I and II, where students are required to work in teams

to design solutions to complex real-life engineering problems that are faced in today's society.

- Lecturing on watershed management and water quality issues as part of the Introduction to Bioresource Engineering.
- Giving extension/education lectures and workshops for various stakeholder groups in New Jersey.
- Leading the USDA-NIFA Regional Water Quality Project in EPA Region 2.
- Director of the New Jersey Water Resources Research Institute (NJWRRI)

January 2009–present, Director of New Jersey Water Resources Research Institute

September 2005–present, USDA-NIFA Regional Water Quality Coordinator for EPA Region 2

October 2003–present, Member, Equine Science Center, Rutgers University

October 2003–present, Member, Center for Environmental Prediction, Rutgers University

October 2003–present, Full Member, Graduate Faculty of Bioresource Engineering, Rutgers University

October 2003–present, Full Member, Graduate Faculty of Environmental Sciences, Rutgers University

August 2002–present, USDA-NIFA State Water Quality Coordinator for New Jersey

August 1989–June 2002: Project Engineer, Senior Project Engineer, Program Manager, Associate, and Senior Associate with Omni Environmental Corporation, Princeton, NJ.

Responsibilities included:

- Water quality monitoring, modeling and TMDL development
- Stormwater modeling
- Watershed restoration/nonpoint source pollution control
- Onsite wastewater treatment system design and management
- Mixing zone analyses/Federal Ocean Discharge Criteria
- Environmental impact analyses/feasibility studies/management plans
- Sediment transport analysis
- Civil engineering
- Computer-Aided Drafting and Design (CADD)/Geographic Information System (GIS)

May 1988–August 1989: Junior Engineer with Johnson Engineering, Inc., Branchburg, NJ.

Responsibilities included:

- Prepared site plans and subdivision designs throughout New Jersey.

January 1987–May 1988: Teaching Assistant and Research Assistant with New Jersey Institute of Technology, Department of Civil and Environmental Engineering, Newark, NJ.

Responsibilities included:

- Taught surveying laboratory in the Civil and Environmental Engineering Department.
- Served as a Research Assistant to Dr. Michael Bruno in coastal sediment transport along the New Jersey shoreline.

TEACHING EXPERIENCE

- Bioresource Engineering Senior Design I (11:127:488, 2 credits, offered in the Fall) & II (11:127:489, 2 credits, offered in the Spring) – instructor; Fall 2002-present
- Stream Restoration (16:375:626, 3 credits, offered in Spring 2008) – co-instructor
- Introduction to Bioresource Engineering (11:127:100, 1 credit, offered in the Fall) - guest lecturer on watershed management; Fall 2002-present
- Perspectives on Agriculture and the Environment (11:015:101, 2 credits, offered in the Fall) -guest lecturer on water quality issues; Fall 2002-2005
- Engineering Orientation Lectures (14:440:100, PN1 credit, offered in the Fall and Spring) – guest lecturer on the Bioresource Engineering Program; Fall 2002, Spring 2003, and Fall 2003

LICENSES

- Professional Engineer, New Jersey & Pennsylvania

SCIENTIFIC AND PROFESSIONAL SOCIETY MEMBERSHIPS

- American Society of Civil Engineers
- American Society of Agricultural and Biological Engineers
- American Water Resources Association
- American Water Works Association
- American Society of Agricultural and Biological Engineers
- Water Environment Federation
- New Jersey Water Environment Association
- New Jersey American Water Resources Association
- Association of Natural Resource Extension Professionals

NATIONAL COMMITTEES

- Past Chair, USDA-CSREES Committee for Shared Leadership in Water Quality
- Past Chair, S-1004 Multi-State USDA Committee for the Development and Evaluation of TMDL Planning and Assessment Tools and Processes
- Water Quality Coordinator, EPA Region 2, USDA-CSREES White Paper Committee on Land Grant Colleges and their Role in the TMDL Process

STATE COMMITTEES

- Chair/Principal Investigator, TMDL Advisory Panel to New Jersey Department of Environmental Protection
- Member, Agriculture Water Quality Partnership, New Jersey Department of Agriculture and the New Jersey Farm Bureau
- Member, New Jersey Nonpoint Education for Municipal Officials (NEMO) Steering Committee
- Member, New Jersey's Microbial Source Tracking Working Group

UNIVERSITY SERVICE

- Director, New Jersey Water Resources Research Institute
- Co-Chair, Cook College Impervious Cover Working Group
- Member, Greening of Cook Campus Committee
- Member, The Agriculture and the Environmental Symposium Planning Committee
- Member, The Advisory Council for the Water Resources Research Institute
- Member, The Nursery Crops Working Group
- Member, Executive Dean's Advisory Council on the Environment
- Member, Rutgers Cooperative Extension Environmental Working Group
- Member, Cook College/NJAES Soil Compaction Working Group

- Member, Executive Committee of the EcoComplex
- Member, University Committee for Environmental Affairs

COURSES TAUGHT

- Bioresource Engineering Senior Design I (11:127:488, 2 credits, offered in the Fall) & II (11:127:489, 2 credits, offered in the Spring) – instructor; Fall 2002-present
- Stream Restoration (16:375:626, 3 credits, offered in Spring 2008) – co-instructor
- Introduction to Bioresource Engineering (11:127:100, 1 credit, offered in the Fall) - guest lecturer on watershed management; Fall 2002-present
- Perspectives on Agriculture and the Environment (11:015:101, 2 credits, offered in the Fall) -guest lecturer on water quality issues; Fall 2002-2005
- Engineering Orientation Lectures (14:440:100, PN1 credit, offered in the Fall and Spring) – guest lecturer on the Bioresource Engineering Program; Fall 2002, Spring 2003, and Fall 2003

SELECTED PUBLICATIONS

Kardos, J. S. and **C.C. Obropta**. 2011. Water Quality Model Uncertainty Analysis of a Point-Point Source Phosphorus Trading Program. *Journal of the American Water Resources Association* 47(6):1317–1337.

Obropta, C.C. and S. Yergeau. 2011. Training Organizations in Use of a Modified Stream Visual Assessment Protocol. *Journal of Extension* 49(5): Article No. 5TOT8.

Obropta, C.C., M. Niazi, and J. Kardos. 2008. Application of an Environmental Decision Support System to a Water Quality Trading Program Affected by Surface Water Diversions. *Environmental Management* 42(6): 946-956.

Ravit, B., **C.C. Obropta**, and P.L. Kallin. 2008. A Baseline Characterization Approach to Wetland Enhancement in an Urban Watershed. *Urban Habitats*. 5(1): 126-152.

Bergstrom, J.D., P.L. Kallin, and **C.C. Obropta**. 2008. Implementing Restoration Projects Upstream from the Teaneck Creek Conservancy. *Urban Habitats*. 5(1): 166-182.

Obropta, C.C., P.L. Kallin, M. Mak, and B. Ravit 2008. Modeling Urban Wetland Hydrology for the Restoration of a Forested Riparian Wetland EcoSystem. *Urban Habitats*. 5(1): 183-198.

Obropta, C.C., M. Flahive DiNardo, and G. Rusciano. 2008. The Demonstration Rain Garden. *Journal of Extension Tools of the Trade* 46(2): 2TOT3.

Giacalone, K.A., **C.C. Obropta**, and R.J. Miskewitz. 2007. Use of Vegetation to Mitigate Nutrient Discharges in Container Nursery Runoff. *Transactions of the ASABE* 50(5): 1517-1523.

Rusciano, G.M. and C.C. Obropta. 2007. Bioretention Column Study: Fecal Coliform and Total Suspended Solids Reductions. *Transactions of the ASABE*. 50(4):1261-1269.

Obropta, C.C. and J. Kardos. 2007. Review of Urban Stormwater Quality Models: Deterministic, Stochastic and Hybrid Approaches. *The Journal of the American Water Resources Association*. 43(6):1508-1523.

Obropta, C.C. and P.L. Kallin. 2007. Case Study: The Restoration of an Urban Flood Plain in Rahway, New Jersey. *Ecological Restoration*. 25(3).

Obropta, C.C., R.I. Hires. 2007. Simulations of Dye Releases off the Coast of New Jersey: Development and Validation of an Ocean Outfall Mixing Model. *Journal of Hydraulic Engineering* 133(2): 173-185.

Obropta, C.C., S. Thomas, and R. Miskewitz. 2006. Probabilistic Analysis of Acute Mixing Zone Limits. *Journal of Marine Environmental Engineering* 8 (4):337-347.

Obropta, C.C. and G. Rusciano. 2006. Addressing Total Phosphorus Impairments with Water Quality Trading. *Journal of American Water Resources Association* 42(5):1297-1306 and 43(1): 280.

Yagow, G., B. Wilson, P. Srivastava, and **C.C. Obropta**, 2006. Application of Biological Indicators in TMDL Assessment and Implementation. *Transactions of the ASABE* 49 (4):1023-1032.

Obropta, C.C. and K.A. Buckley. 2006. Building an Onsite Wastewater Treatment System Management Database for Your Municipality. *Journal of Extension Ideas at Work* 44(1):1IAW3.



CURRICULUM VITAE

JEREMIAH D. BERGSTROM, LLA, ASLA

Senior Project Manager • Rutgers Cooperative Extension Water Resources Program
14 College Farm Road • New Brunswick, NJ 08901-8551 • USA
Phone: 732/932-9800 x6126 • Fax: 732/932-8644
jbergstrom@envsci.rutgers.edu

EDUCATION

B.L.A, Bachelor of Landscape Architecture (BLA) with Distinction, 1996
Iowa State University, Ames, Iowa

PROFESSIONAL EXPERIENCE

Rutgers Cooperative Extension Water Resources Program

December 2009 – Present: Senior Project Manager
New Brunswick, NJ

CLEER Environments, LLC

September 2009 – Present: Principal
Ewing, NJ

EDAW/AECOM

January 2009 – December 2009: Senior Associate/Senior Ecological Designer
Piscataway, NJ & New York, NY

TRC Environmental

February 2002 – December 2008: Senior Project Manager, Principal
Trenton, NJ

Omni Environmental Scientist

December 1999 – January 2002: Staff Project Manager
Princeton, NJ

Lardner/Klein Landscape Architects, P.C.

Designer/GIS Specialist: May 1996 – May 1998
Alexandria, VA

Heritage Conservancy

Natural Resource Planner: May 1998 – November 1999
Doylestown, PA

PROJECT EXPERIENCE

Camden Green Infrastructure Program

Project Manager

CLIENT: Camden County Municipal Utilities Authority

The Camden County Municipal Utilities Authority (CCMUA) in partnership with Rutgers Cooperative Extension Water Resources Program has developed a community-based initiative to implement green infrastructure projects throughout the City of Camden. Work has included design and construction of demonstration rain gardens, writing and obtaining a \$300,000 grant award from NJDEP and establishment of a nationally and state recognized city-wide program, the Camden SMART Initiative. The program works to implement green infrastructure demonstration projects, conduct community presentations, and provide training on Green Infrastructure practices for both youth and adults in the City of Camden.

Rockaway Town Square Mall Urban Stormwater BMP Project

Project Manager

CLIENT: NJDEP

Rutgers Cooperative Extension Water Resources Program in partnership with a local non-profit organization, municipality, and property owner received a \$380,000 grant from NJDEP to research and demonstrate the latest technologies and techniques in stormwater quality and quantity management at highly urbanized sites. The project evaluates a variety of management strategies and technologies ranging from bioretention systems, pervious paving, underground detention systems, and manufactured treatment devices.

Rain Garden Manual of New Jersey

Project Manager

CLIENT: Rutgers Cooperative Extension/Native Plant Society of New Jersey

Rutgers Cooperative Extension Water Resources Program in partnership with the Native Plant Society of New Jersey authored, designed, and published a manual for New Jersey communities and residents to install rain gardens. The manual is intended to give step-by-step procedures to create a beautiful and sustainable rain garden landscape. It serves as an information and education tool providing technical guidance and information needed to plan, design, install, and maintain rain gardens.

Holmdel Village Elementary School Rain Garden Project

Project Landscape Architect

CLIENT: Omni Environmental/Holmdel Schools

Provided design support for the creation of four rain gardens in an interior courtyard treating 10,000 square feet of roof top runoff. Prepared preliminary layout, design, and planting plans. Coordinated with school and consultants to implement outdoor classroom amenities and develop educational program appropriate for rain garden “classroom.”

PlaNYC Reforestation Initiative, New York, NY

Project Manager

CLIENT: New York City Parks Department / Natural Resources Group

The PlaNYC 2030 goal of replanting forest on 2,000 acres of New York City public land by 2017 provides a unique opportunity to significantly improve the quality of the urban environment and to address issues of public health and climate change. EDAW, teamed with a selection of expert academic consultants, worked to establish measurable goals, objectives, planting design methodologies and timelines for the action items of site selection, site assessment and site construction. The scope of the project includes developing a protocol for site selection of 2000 acres, categorizing sites and evaluating their reforestation suitability, and developing a range of

reforestation details and specifications. The team assessed existing woodland areas, open spaces, natural areas and publicly-owned lots suitable for reforestation. The goal of the implementation plan is to develop a guidance document for reforestation approaches that can be applied to a wide variety of sites throughout the five boroughs.

Bush Terminal Piers 1 to 5, Brooklyn, NY

Ecological Designer

CLIENT: New York City Economic Development Corporation, City of New York Parks & Recreation

Master planning and design of a 23 acre brownfield waterfront site meeting the needs of a diverse and vocal community. Park and recreation elements were developed in concert with the remediation consultants so that surface treatments, such as synthetic turf for fields, are a part of the brownfield remediation. Site design is incorporating stormwater management strategies, including site filtration, directing site flow to created wetlands, and raingardens to treat road runoff.

Teaneck Creek Conservancy Park Trails, Boardwalks, and Outdoor Classroom, Teaneck, NJ
Project Manager

CLIENT: Bergen County Department of Parks, Teaneck Creek Conservancy

The Teaneck Creek Conservancy (TCC) has realized construction of educational and interpretive amenities within an undeveloped 46-acre parcel of Overpeck Park in Teaneck, New Jersey. The project team was successful in preparing final engineering drawings and securing necessary permits from the State of New Jersey. The project proposes to construct multiple trail loops throughout the 46-acre site providing for educational and interpretive understanding of wetland systems. A total of 6,400 linear feet of walking paths and 1,300 linear feet of boardwalk are proposed. In addition, two pedestrian bridges across Teaneck Creek are to be installed. Assisted project partners in securing over \$1 million in grant funding to implement the project.

Riparian Restoration and Stormwater BMP Projects, Dover, NJ

Project Manager and Landscape Architect

CLIENT: Rockaway River Watershed Cabinet

Assisted the client in obtaining grant funding from NJDEP 319(h) program to install stormwater BMPs and shoreline restoration at two sites. BMP design included installation of wetland swales for water quality treatment of runoff from a County DPW facility. Restoration efforts included approximately 700 LF of riparian enhancements of the Jackson Brook in the Township of Dover, New Jersey. Construction included the installation of a pedestrian bridge, the removal of invasive species, the planting of native species and installation of erosion control materials.

Zion Evangelical Lutheran Church, Washington Township, NJ

Project Manager and Landscape Architect

CLIENT: Zion Evangelical Lutheran Church

Prepared wetlands delineation, natural resource inventory, NJDEP permits, and Developmental Impact Statement for a proposed parish center addition. Environmental site constraints considered in the evaluation included adjacent Category I stream, threatened and endangered species habitat, NJ Highlands, and exceptional resource value freshwater wetland areas. Managed technical staff of engineers, designers, and scientists.

Ramanessin Brook Non-Point Pollution Assessment and Stormwater Impact Study, Monmouth County, NJ

Project Manager

CLIENT: Monmouth County Planning Board, NJDEP Division of Watershed Management

The characterization study conducted by the project team was designed to address the relationship of TSS, turbidity, fecal coliform and phosphorus with hydraulic conditions by means of a pollution

source track down study. Sampling for this project obtained data necessary to evaluate pollutants with respect to flow conditions, seasonal variations and pertinent weather conditions for a study period of one year. This study provided background data needed to assess water quality impairments due to nonpoint source impacts including erosion and stormwater runoff throughout the watershed and identify best management practices to be implemented to address impairments. Assisted client in obtaining grant funding for planning and implementation efforts.

Pike Run Stream Restoration, Montgomery, NJ

Project Manager and Landscape Architect

CLIENT: Stony Brook-Millstone Watershed Association

Provided instream habitat enhancement and floodplain wetland habitat enhancement through native plantings in Veterans Park in partnership with the Montgomery Township Environmental Commission. Preliminary analyses included stream cross section surveys in accordance with Rosgen stream classification methodologies and the restoration focused on improving in-stream habitat in this segment of Pike Run. Established native meadow and woodland species to further enhance the riparian buffer along the stream. The restoration established native wetland buffer plantings, creation of instream habitat with the construction of single wing deflectors, root wads, log vanes, and natural boulder rock vanes, and minor grading associated with the structures to increase access to the flood plain.

Teaneck Creek Stream Restoration at TJ Middle School, Teaneck, NJ

Project Manager and Landscape Architect

CLIENT: Teaneck Board of Education

Restoration of 1000 LF riparian corridor and stream channel at a public school in Teaneck, New Jersey. Design, permitting and construction included the installation of stabilization of the existing outfall, the repair of a pedestrian bridge, channel stabilization, removal of invasive species, and re-establishing native riparian plant communities. Services included site planning, H&H modeling, restoration design, public bidding, and construction administration. Managed technical staff of engineers, designers, and scientists.

Troy Brook Regional Stormwater Management Plan, Morris County, NJ

Project Manager

CLIENT: Rutgers Cooperative Extension and Morris County Planning Board

This plan developed a storm water runoff and flood study to assist local planners and Rutgers University in their efforts to evaluate water quantity issues in the Troy Brook watershed. HEC-HMS and HEC-RAS were used to identify surface runoff originating in different areas of the watershed, route stream flow and simulate water surface elevation profiles under multiple storm events. Using extensive Geographic Information System (GIS) data for the watershed, modeling set up and post processing were completed using an ArcView GIS Interface. This study produced a series of flood maps based on different storm events and runoff scenarios based on field research and data analysis. The scenarios included simulations of flood extent according to multiple design storms, simulation of impacts due to changes in land use for selected sub watershed areas, and impacts due to changes to selected structures along the stream, such as bridges and culverts. Managed technical staff of engineers and scientists.

Wises Mill Run Stormwater Wetland, Philadelphia, PA

Project Manager and Landscape Architect

Client: Philadelphia Water Department

This project involved developing a preliminary design for the diversion of piped stormwater into an open, vegetated stormwater management area. Proposed management techniques include diverting flow into vegetated infiltration swales and a level spreader promoting infiltration into an existing permeable soils. Additional runoff is then directed into a series of basins designed as a constructed

treatment wetland. Due to limited open space available in the City of Philadelphia, this project offered a unique opportunity to reintroduce stormwater to the groundwater improving base flow in streams while minimizing velocity and flooding impacts to Wissahickon waterways.

Saylor Grove Stormwater Treatment Wetland, Philadelphia, PA

Project Landscape Architect

CLIENT: Philadelphia Water Department

The Philadelphia Water Department installed a storm water treatment wetland in Fairmount Park to protect the water supply of the City. Due to limited site area, the design includes a diversion structure to divert only the first flush of larger storms and the entire runoff volume for smaller storms into the wetland and allows larger flows to bypass the wetlands. The design plan integrates an energy dissipation structure at the inlet that slows flow entering the wetland by cascading water through a series of falls and pools constructed of native stone. The wetland includes a four-foot deep permanent pool to promote a diverse ecosystem and an outlet structure designed to retain water for up to three days, providing maximum pollutant removal efficiency.

Michael S. Bezega Wetland Observation Area, Rahway, NJ

Permitting, Native Plant Design, Construction Administration

CLIENT: Union County Department of Parks, City of Rahway

This project was completed through a partnership with the NY/NJ Baykeeper, the City of Rahway, Union County Parks Department, and the Rahway River Association. The City of Rahway obtained 11 flood prone properties and with funding assistance from the New Jersey Wetland Mitigation Council, partners completed an ecological restoration design for the 4½ acre site in the Rahway River flood plain. Plans provided for daylighting two stormwater outfalls that discharged directly to the Rahway River, rerouting them through a series of stormwater treatment wetlands for treatment before discharging to the River. The design required the examination of the effect of the Rahway River (tidal at this location) as well as stormwater runoff from the local drainage area. The site now provides for stormwater retention to help minimize flooding in the area, and provide for public access for recreation and public education on wetlands and watershed management.

Rahway River Restoration, Rahway, NJ

Project Manager and Landscape Architect

CLIENT: Union County Parks, City of Rahway, and Rahway River Association

Design development and implementation of multiple restoration efforts in the Rahway River Watershed. Projects included stream bank stabilization, riparian buffer plantings, as well as wetland construction and restoration. Responsible for the design, permitting (including local, state, and federal permits), materials purchasing, and volunteer coordination. Specific work included the installation of coconut fiber rolls, erosion control mats, native plantings, live timber crib walls, wattling, live staking, vegetated gabions, and single-wing deflectors.

Teaneck Creek Wetland Restoration Project, Teaneck, NJ

Project Manager

CLIENT: Teaneck Creek Conservancy

Project involved restoration design and planning for 26 acres of wetland habitats along Teaneck Creek in Teaneck, New Jersey. Project included design development, permitting construction drawings, and specifications working in close partnership with Rutgers University Scientists. Final designs include pre-treatment of storm water runoff, stabilization of existing channels, construction of wetland storage basins, invasives species management, and re-establishment of native plant communities indigenous to the region.

Teaneck Creek Stream Restoration at TJ Middle School, Teaneck, NJ**Project Manager and Landscape Architect**

CLIENT: Teaneck Board of Education

Restoration of 1000 LF riparian corridor and stream channel at a public school in Teaneck, New Jersey. Design, permitting and construction included the installation of stabilization of the existing outfall, the repair of a pedestrian bridge, channel stabilization, removal of invasive species, and re-establishing native riparian plant communities. Services included site planning, H&H modeling, restoration design, public bidding, and construction administration. Managed technical team of engineers, designers, and scientists.

Demarest Pond Habitat Enhancement and Shoreline Restoration, Demarest, NJ**Project Manager and Landscape Architect**

CLIENT: Borough of Demarest

Completed design, permitting, and construction for stabilization and re-naturalization of shoreline along 1,600 linear feet of Demarest Pond. Construction included establishing native herbaceous buffer plantings, stabilization of shoreline slopes with vegetation and erosion control materials, reconstruction of existing stone edging and installation of “natural” boulders for shoreline fishing and viewing access. All planting was done using native riparian and wetlands species. Submitted NJDEP 319(h) Grant on behalf of the project partners and provided coordination through the NJDEP’s grant approval process. Provided professional engineering services including design, permitting, public bidding, and construction management for the project, including preparation of construction specifications and bid documents. Facilitated a series of public meetings and presentations to obtain stakeholder input during the design phase. Prepared all permit applications for the project including NJDEP Minor Stream Encroachment and Freshwater Wetlands Permits, and Bergen County Sediment and Erosion Control Permits.

Riparian Restoration in Morristown, NJ**Project Landscape Architect**

CLIENT: Whippany River Watershed Action Committee

Design development and implementation of multiple riparian restoration and stormwater BMP efforts in Morris County, New Jersey including stream bank stabilization, stormwater treatment swales, and riparian buffer plantings. Efforts included grant writing, site planning and native plant design, environmental permitting, materials purchasing, construction administration, and volunteer instruction associated with the projects. Prepared and presented design drawings at public forums.

Stormwater Best Management Practice (BMP) Design & Implementation, NJ**Project Landscape Architect**

CLIENT: Multiple

Consulted with design engineers on the installation of storm water best management practices to provide water quality controls as well as quantity controls to meet new stringent storm water regulations. Responsible for the following:

- Landscape planning for residential and commercial site plans throughout New Jersey
- Concept design, landscape design, and plant material inspections for a 1-acre bioretention basin at a new Corporate Campus in Readington Township, New Jersey
- Landscape design for five stormwater treatment basins located at new schools constructed in Mansfield Township, New Jersey
- Environmental permitting, landscape design, and plant material installation for a 1-acre storm water treatment wetland in Camden County, New Jersey
- Developed multiple operations and maintenance manuals for landscape design, restoration and storm water best management practice projects.

Clarks Pond Dredging, Dam Repair, and Shoreline Restoration Project, Bloomfield, NJ
Project Manager and Landscape Architect

CLIENT: Township of Bloomfield

Assisted the Township of Bloomfield with the design, permitting and construction activities that were required to dredge the nearly 4-acre Clarks Pond, repair the unsafe dam structure to comply with NJDEP Dam Safety requirements, and install shoreline plantings to enhance and protect the waterway.

Watershed Restoration Master Plan for Watershed Management Area 3, Wanaque, Ramapo, Pequannock, and Pompton Rivers, NJ

Project Manager

CLIENT: NJDEP Division of Watershed Management

The Watershed Management Area 3 (Pompton, Pequannock, Wanaque, and Ramapo Rivers) Restoration Master Plan Project in New Jersey identifies and prioritizes NPS pollution sites and recommends BMPs to address impaired rivers, streams and lakes at the watershed level. The plan ranks projects and provides costs associated with implementation of BMPs. The plan and recommendations will guide future restoration efforts to best address NPS pollution in the watershed. While this project includes only two on-the-ground implementation projects, it provides watershed partners with a tool to target other immediate and long-term NPS pollution issues in the watershed. The project team was responsible for preparing a basin-wide GIS, implementing a stream visual assessment procedure that included evaluation of nearly 250 sites throughout the watershed area, compiling all collected data and photographs in a user-friendly format to be shared with local watershed nonprofit groups and the New Jersey Department of Environmental Protection, and prioritizing sites to identify two sites for immediate restoration demonstrating new techniques and technologies in the protection of healthy aquatic ecosystems. This study produced a series of management strategies based on different storm events and runoff scenarios based on field research and data analysis.

Point Pleasant Canal Walk Evaluation Recommendations and Implementation Plan, Point Pleasant Borough, New Jersey

Project Manager and Landscape Architect

CLIENT: Borough of Point Pleasant

Project included assessment of existing conditions and opportunities as well as the preparation of a Recommendations and Implementation Plan for the development of a Canal Walk and pedestrian-oriented circulation network for the Borough of Point Pleasant. Facilitated public meeting and presentation to obtain stakeholder input during planning development process.

Camden Industrial Site Inventory, Camden, NJ

Project Manager

CLIENT: Camden Redevelopment Agency

Developed a city-wide inventory of industrial properties to identify and prioritize sites for redevelopment in the City of Camden, NJ. Directed technical staff and resources in the development of a GIS and MS Access database of digital tax parcels, site inventory data, and MLS style reporting forms.

Closter Borough Sustainability Initiative, Closter Borough, NJ

Project Manager

CLIENT: Closter Borough

Directed community efforts to address sustainability goals including facilitating public meetings. Topics included sustainability, green building, pedestrian improvements and traffic calming. Assisted client in securing grant funding. Facilitated public meeting and presentation to obtain community and stakeholder input.

Rockaway River Priority Stream Segment Study, Morris County, NJ**Project Manager**

CLIENT: Rockaway River Watershed Cabinet

Conducted field surveys in conjunction with the design and implementation of a wet weather and dry weather sampling program to identify nonpoint sources of pollution to the Rockaway River. The results of the study provided detailed scientific data isolating areas where concentrations of non-point source pollutants are greatest in this reach of the Rockaway River. To address the identified problem of fecal coliform contamination, partners recommended several management strategies and implementation projects for consideration, including: active implementation and enforcement of the requirements for street sweeping, waterfowl feeding, and pet waste cleanup in the surrounding communities; implementation of several storm water BMP and restoration projects; and preparation of a regional storm water management plan. Assisted client in securing grant funding for project.

Watershed Management Plans for WMA 19, Rancocas Creek, Burlington County, NJ**GIS Specialist and Natural Resource Planner**

CLIENT: Burlington County Resource Conservation Department

Designed and prepared an interactive digital characterization and assessment report for the Rancocas Creek Watershed in Burlington County, New Jersey. Integrated data and recommendations in a user-friendly format consisting of over 1000 digital slides. Also responsible for development of the watershed-wide GIS for analysis and development of the watershed master plan. Coordinated data collection, updates and conversion. Integrated MS Access database of water quality and biological assessment data with the GIS to evaluate and analyze watershed conditions.

Lower Delaware River Conservation Plan, Bucks County, PA**Natural Resource Planner**

CLIENT: PA Department of Conservation and Natural Resources

Researched and prepared resource inventory and recommendations for a comprehensive watershed study of a 90 square mile urbanized watershed along the Delaware River. Coordinated GIS mapping and public presentations. Directed visual stream assessment projects in five participating municipalities. Coordinating fieldwork with local EAC members. Utilized GIS, GPS and digital photography to prepare reports and mapping of local watershed and stream conditions, and identified priority sites for future restoration projects.

Conservation Planning, Bucks County, PA**Natural Resource Planner**

CLIENT: Heritage Conservancy

Prepared conservation plans for private landowners considering resource conservation and low impact development alternatives in Bucks County, Pennsylvania. Responsible for natural resource inventory and analysis, watershed mapping and developing conservation-based development concept designs.

Scenic Highway Corridor Planning, CT**GIS Specialist and Staff Planner**

CLIENT: Connecticut DOT

Prepared inventories of scenic, historic, natural and recreational resources for Routes 146/77 (Branford & Guilford), Pequot Trail (Stonington), and Routes 41, 44, 4 and 7 in the towns of Salisbury, Sharon, Cornwall and Kent, Connecticut. Illustrated traffic modifications, traffic calming measures, pull-offs and waysides, soil bioengineering and used photo simulations demonstrating recommended guidelines for new development. Responsible for managing the geographic information system database for the ongoing corridor management planning efforts as part of the Connecticut Scenic Byways Study.

Savannah River Scenic Highway Project, SC**GIS Specialist and Staff Planner**

CLIENT: South Carolina DOT

Responsible for GIS mapping, concept development and illustration for a 115-mile scenic byway through the South Carolina Heritage Area as part of the Savannah River Scenic Highway project. Issues addressed included the design of community entrances and community appearance, waysides, roadside enhancement, soil bioengineering for eroding slopes, and bicycle use.

You and Your Land, a Homeowner's Guide for the Potomac River Watershed, Fairfax County, VA**Project Designer**

CLIENT: Northern Virginia Soil & Water Conservation District

Project designer for the 1997 revision of You and Your Land, an award-winning homeowner's guide to using best management practices. The guide is filled with practical information to help property owners manage their land in an economical and environmentally friendly way. The guide is intended to help homeowners conserve resources and energy, prevent soil erosion, reduce flooding and clean up waterways.

Natural Resource Planning, IA**Landscape Architecture Intern**

CLIENT: Iowa Natural Heritage Foundation

Assisted Iowa Natural Heritage Foundation staff on several master planning projects. Prepared resource inventory maps and analysis for the Green Meadows Greenway. Developed a partnership between a residential developer and the local community to create a master plan for managing a floodplain corridor for recreation and restoration of the native plant community. Prepared plans for America's Historic Forest (an urban forestry partnership project) and the Spirit Lake School Enviro-Play Project (a 40-acre environmental education facility).

PROFESSIONAL MEMBERSHIPS/AFFILIATIONS

- Certified Landscape Architect, Commonwealth of Virginia, License # 000858
- Registered Landscape Architect, Commonwealth of Pennsylvania, License # LA-001619R
- Certified Landscape Architect, State of New Jersey, License # 21AS00090700
- Registered Landscape Architect, State of New York, License # 001906-1
- New Jersey Section of the American Water Resources Association (Vice President)
- American Society of Landscape Architects
- New Jersey Chapter – American Society of Landscape Architects (2nd Vice President)

SELECTED PUBLICATIONS

Obropta, C.C., J. Bergstrom, C. Higgins, A. Boyajian. Rain Garden Manual of New Jersey 2010. <http://www.water.rutgers.edu/>.

Bergstrom, J., P. Kallin, C. Obropta: Implementing Restoration Projects Upstream from the Teaneck Creek Conservancy. Urban Habitats, an electronic journal on the biology of urban habitats around the world. Volume 5, May 2008. www.urbanhabitats.org.

Jaligama, G., M. Cerucci, J. Bergstrom, and S. Goodrow: Combining Digital Elevation Datasets and Field Surveys for Stormwater Modeling. Maidment, D. and S. Grounds, III (Editors), 2006, AWRA's 2006 Spring Specialty Conference "GIS and Water Resources IV." American Water Resources Association, Houston, TX, TPS-06-1, CD-ROM.

Bergstrom, J.D., P. Kallin, and C. Obropta. Case Study: An Urban Riparian Buffer Restoration Project. In Lowrance, Richard (Editor), 2004. AWRA's 2004 Summer Specialty Conference "Riparian Ecosystems and Buffers: Multi-Scale Structure, Function, and Management." American Water Resources Association, Middleburg, Virginia, TPS-04-2, CD-ROM.

Bergstrom, J.D., M. Cerucci, and K. Buckley. Tools and Experiences on Watershed-Wide Riparian Buffer Restoration Planning. In Lowrance, Richard (Editor), 2004. AWRA's 2004 Summer Specialty Conference "Riparian Ecosystems and Buffers: Multi-Scale Structure, Function, and Management." American Water Resources Association, Middleburg, Virginia, TPS-04-2, CD-ROM.

Bergstrom, J.D., M. Cerucci, and K. Buckley, "A GIS-Based Analysis to Identify Riparian Buffer Restoration Sites", AWRA's 2004 Spring Specialty Conference "Geographic Information Systems (GIS) and Water Resources III." American Water Resources Association, Middleburg, Virginia, TPS-04-1, CD-ROM.

Cerucci, M, and J. Bergstrom, "GIS as a Tool to Meet Environmental Regulations in New Jersey", AWRA's 2004 Spring Specialty Conference "Geographic Information Systems (GIS) and Water Resources III." American Water Resources Association, Middleburg, Virginia, TPS-04-1, CD-ROM.

Bergstrom, J.D., J.F. Cosgrove, Jr., and K. Buckley, "Identifying and Prioritizing NPS Projects: The Watershed Restoration Master Plan," American Society of Civil Engineers, Environmental & Water Resources Institute, World Water & Environmental Resources Congress 2003, June 26, 2003.

Cosgrove, Jr., J.F., and J. D. Bergstrom, "Design and Construction of Biofiltration Basins: Lessons Learned," American Society of Civil Engineers, Environmental & Water Resources Institute, World Water & Environmental Resources Congress 2003, June 24, 2003.

Kallin, P., W. Lucas, and J. D. Bergstrom, "The Biofilter Wetland in Urban Situations: Design and Construction Considerations – Case Studies and Lessons Learned," American Society of Civil Engineers, Environmental & Water Resources Institute, World Water & Environmental Resources Congress 2003, June 24, 2003.

Cosgrove, Jr., J.F., and J. D. Bergstrom, "Use of Bioretention Basins to Meet New Stringent Storm Water Regulations," American Society of Civil Engineers, Environmental & Water Resources Institute, World Water & Environmental Resources Congress 2001, May 24, 2001.

Kallin, P.L., C.C. Obropta and J. D. Bergstrom, 2001. "The Biofilter Wetland: Design and Construction of an Urban BMP to Treat Stormwater." in Proceedings of the 2001 Pennsylvania Stormwater Management Symposium Held at Villanova University, October 17-18, 2001, R. Traver (Editor).

SELECTED PRESENTATIONS

Bergstrom, J.D., "Maintenance and Retrofits of Stormwater Management Basins", presented at South Brunswick Township, NJ, May 2011.

Bergstrom, J.D., C. Obropta, "Restoring Hydrology to Degraded Ecosystems", presented at the Senior Ecological Design Seminar, Rutgers University, Professor Steven Handel, February-March 2011.

Bergstrom, J.D., "Maintenance and Retrofits of Stormwater Management Basins", presented at Clinton Township, NJ, March 2011.

Bergstrom, J.D., Boyajian, A., "Rain Garden Training for Professional Landscapers", presented at Camden County Municipal Utilities Authority, Camden, NJ, February 2011.

Bergstrom, J.D., Friedlich, B., "Engineering Bioretention Systems: Rain Gardens to Basins", presented at NJASLA Annual Meeting, Atlantic City, NJ, February 2011.

Bergstrom, J.D., "Maintenance and Retrofits of Stormwater Management Basins", presented at Byram Township, NJ, October 2010.

Bergstrom, J.D., "Planting Design for Ecologically Sensitive Sites", presented at the Landscape Architecture Planting Design Studio, Rutgers University, Professor Richard Bartolone, ASLA, April 16, 2009.

Bergstrom, J.D., "Water and the Landscape", presented at Princeton University Senior Engineering Design Seminar, October 2008.

Bergstrom, J.D., et. al. "Rockaway River - Evaluating TMDLs in an Urban Watershed", "Troy Brook Watershed, Morris County, New Jersey: A Case Study in the Formation of a Regional Stormwater Management Plan", and "Teaneck Creek: Restoring Neglected Urban Lands", presented at the American Ecological Engineering Society 2008-Beyond Wetlands Conference, Virginia Tech University, June 2008.

Bergstrom, J.D., "Instream Habitat Enhancement", presented at Rutgers University Environmental Sciences "Stream Restoration" Graduate Seminar, April 2008.

Bergstrom, J.D., "Managing the Ponds on Your Golf Course", presented at the Golf Course Superintendents Association of New Jersey Crystal Conference, Nov. 2007.

Bergstrom, J.D., "Implementing 'Green' Stormwater Management", presented at Mid-Atlantic Chapter of the International Erosion Control Association's 14th Annual Conference, Atlantic City, NJ, Sept. 2007.

Bergstrom, J.D., "Rockaway River Priority Stream Segment Study, Evaluating and Implementing TMDLs in an Urban Watershed" and "Teaneck Creek: Reclaiming Forgotten Urban Lands for a Wetland Eco-Park", presented at the Mid-Atlantic Chapter of the American Water Resources Association Conference, University of Delaware, September 2007.

Bergstrom, J.D., et. al., "The Raritan Basin Watershed Alliance Riparian and Stream Restoration Initiative", "A Tool for Watershed-Wide Riparian Buffer Restoration Planning", and "An Urban Stream Restoration Approach – Cathedral Run, Philadelphia, PA", presented at the Stream Restoration & Protection in the Mid-Atlantic Region 2006 Conference Mid-Atlantic Sections AWRA, June 14-16, 2006.

Bergstrom, J.D., "Stormwater Management and Site Design – The New Approach", presented at the Senior Landscape Architecture Design Studio, Rutgers University, Professor Richard Bartolone, ASLA, March 21, 2005.

Bergstrom, J.D., "Landscaping and Maintenance of Stormwater Management Facilities", presented at the "Life of a Stormwater Management Basin" seminar hosted by Morris County Soil

Conservation District, March 5, 2005.

Bergstrom, J.D., and W. Lucas, "A Catalog of Innovative Stormwater BMPs", presented at the "Stormwater Management Forum & Awards Program" sponsored by the Board of Chosen Freeholders of the County of Burlington, N.J., May 4, 2004.

Bergstrom, J.D., "Restoration Approaches and Practical Applications", presented at the "Technical Seminar for Aquatic Ecosystem Restoration" sponsored by the Ten Towns Great Swamp Watershed Association, April 30, 2003.

Bergstrom, J.D., "Greener Site Design and Best Management Practices", presented at the "Technical Seminar on Stormwater Management" for engineers sponsored by the Ten Towns Great Swamp Watershed Association, March 28, 2003.

Moderator, "Greening the Golf Courses and Open Spaces of New Jersey", seminar sponsored by the Ten Towns Great Swamp Watershed Association, March 6, 2003.

Bergstrom, J. D., "Habitat Modification as a Goose Management Tool," 5th Annual Goose Damage Management Workshop, County of Morris Board of Chosen Freeholders & the Whippany River Watershed Action Committee, February 20, 2003.

Bergstrom, J. D., "Habitat Modification, Goose Management in Urban Parks," 3rd Annual All-County Goose Damage Management Workshop, County of Morris Board of Chosen Freeholders and the Whippany River Watershed Action Committee, February 15, 2002.

Bergstrom, J.D. and S. Cavanaugh, "Restoration and Naturalized Plantings in Urban Parks," New Jersey Chapter American Society of Landscape Architects Annual Meeting 2002, February 10, 2002.

HONORS AND AWARDS

American Society of Landscape Architects New Jersey Chapter
Environmental Enhancement Award – Holmdel Village Elementary School Rain Garden Project

American Society of Landscape Architects New Jersey Chapter
Merit Award Landscape Architecture Communications – Rain Garden Manual of New Jersey

American Society of Landscape Architects Potomac and Maryland Chapters Honor
Award - You and Your Land, A Homeowner's Guide for the Potomac River Watershed



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EDUCATION

A.A., Humanities and Social Sciences, January 2004
Mercer County Community College, West Windsor, New Jersey

B.S., Environmental Policy, Institutions, and Behaviors, May 2010
Rutgers, the State University of New Jersey, New Brunswick, New Jersey

PROFESSIONAL EXPERIENCE

Rutgers Cooperative Extension Water Resources Program

Program Associate
May 2011– Present

- Assist the Extension Specialist in Water Resources in preparing Extension materials needed for successfully delivering Extension programming
- Assist the Extension Specialist in Water Resources in developing and delivering Extension programming based upon stakeholder needs
- Coordinate and present rain barrel workshops throughout New Jersey
- Arrange for installation of rain gardens throughout New Jersey
- Compile information for rain garden web pages
- Participate in community and youth outreach projects pertaining to water resources

Program Coordinator
May 2010-May 2011

- Coordinated and present rain barrel workshops throughout New Jersey
- Performed soil compaction tests
- Designed, constructed, and arranged installation of rain gardens throughout New Jersey
- Compiled information for rain garden web pages
- Provided outreach education to youth on topics pertaining to water resources

Undergraduate Student Assistant
May 2009 – May 2010

- Participated in water quality sampling and flow monitoring to be used for watershed restoration and protection plans
- Assisted in coordination, construction, and maintenance of rain gardens throughout New Jersey

- Performed stream visual assessments
- Helped develop and run rain barrel workshops
- Organized the “One Barrel at a Time Co-op”
- Supported staff in community educational outreach projects
- Researched ways to inform the public about the importance of conserving water

Rutgers University Herbarium

Technician

March 2009 – June 2009

- Handled rare and endangered plant species
- Assisted in digitizing New Jersey’s rare and endangered plant species

Caola Company

Administrative Assistant

July 2005 – December 2008

- Composed proposals for clients
- Organized invoices and payables
- Recorded accounts payable invoices
- Answered phone calls and took detailed work orders

Sonitrol Security Systems

Sales and Administrative Assistant

July 2003 – June 2005

- Created and distributed weekly client reports and maintained client profiles
- Managed accounts receivable
- Interacted directly with clients
- Supported sales staff by maintaining calendars and drawing up contracts
- Managed office supplies and equipment
- Received service calls and delegated assignments to technicians

Mercer County Community College

Assistant to Athletic Director

September 2000 – July 2002

- Managed Athletic Department Accounts Payable
- Maintained Athletic Directors schedule
- Coordinated travel arrangements for a Athletic teams
- Updated NJCAA web-site with game results and player statistics

SELECTED PUBLICATIONS

Bakacs, M.E., M. Haberland, S.S. Mangiafico, A. Winkist, C.C. Obropta, A. Boyajian, and S. Mellor. 2013. Rain Barrels: A Catalyst for Change? *Journal of Extension* 51(3): Article No. 3RIB6.

CONFERENCE PROCEEDINGS

Bakacs, M., C. Muscio, M. Haberland, P. Rector, S. Mangiafico, J. Carleo, C. Obropta, **S. Mellor**, and A. Boyajian. 2011. "Engaging the Public in Water Resource Issues through Rainwater Harvesting." Poster, 2011 National Water Conference, Washington, DC, January 31-February 1, 2011.

Bakacs, M., M. Haberland, C. Obropta, and **S. Mellor**. 2011. "Residential Rainwater Harvesting: A First Step Towards Changing Behaviors." Poster, National Urban Extension Conference, Des Moines, IA, May 2-5, 2011.

Boyajian, A., C.C. Obropta, R. DaSilva, **S. Mellor**, M. Haberland, S. Kinsey, M. McCann, D. Troiani, R. Kukola, R. Szkotak, and C. McGee. 2012. "Stormwater Management in Your Schoolyard: Connecting Youth to Water in the Cooper River Watershed." Poster, 2012 Land Grant and Sea Grant National Water Conference, Portland, OR, May 20 – 24, 2012.

PRESENTATION

Mellor, S.A. "Build a Rain Barrel Workshop", presented at the Holmdel Senior Center, Holmdel, NJ June, 2010, 30 attendees.

2012 Mellor, S.A. "Build a Rain Barrel Workshop"

Presented at the Manasquan Recreational Center Annex, Manasquan, NJ, April, 40 attendees.

Presented at the Bridgewater Municipal Complex, Bridgewater, NJ, May, 35 attendees.

Presented at the Carmen A. Biase Center, Bradley Beach, NJ, June, 50 attendees.

Presented at the Wall Township Municipal Building, Wall, NJ, June, 35 attendees.

Presented at the Westwood Community Center, Westwood, NJ, June, 35 attendees.

Presented at Duke Farms, Hillsborough, NJ, June, 20 attendees.

Presented at the Eatontown Community Center, Eatontown, NJ July, 35 attendees.

Presented at the Princeton Township Municipal Building, Princeton, NJ September. 40 attendees.

2013 Mellor, S.A. "Build a Rain Barrel Workshop"

Presented at the Manasquan Recreational Center Annex, Manasquan, NJ, March, 40 attendees.

Presented at the Sea Girt Armory, Sea Girt, NJ, March, 20 attendees.

Presented at the Hamilton Township Library, Hamilton, NJ, 35 attendees.

Presented at the First United Methodist Church, Bradley Beach, NJ June, 35 attendees.



STEVEN E. YERGEAU, PH.D.

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EDUCATION

Rutgers University, New Brunswick, NJ

Ph.D., Environmental Sciences, 2010

Southern Connecticut State University, New Haven, CT

M.S., Biology, 2004

University of Massachusetts, Dartmouth, MA

B.S., Biology, 1993

PROFESSIONAL EXPERIENCE

Rutgers University – New Brunswick, NJ

Senior Program Coordinator, November 2012 – Present

Post-Doctoral Associate, February 2010 – November 2012

Graduate Assistant, September 2005 – May 2008

Field Assistant, May 2005 – August 2005; June 2009 – January 2010

Holy Family University – Philadelphia, PA

Adjunct Instructor, August 2008 – December 2008

Stony Brook-Millstone Watershed Association – Pennington, NJ

Restoration Specialist, September 2004 – January 2005

Watershed Assessment Specialist, March 2002 – August 2004

Senior Watershed Specialist, December 1999 – February 2002

Save the Sound, Inc. – Stamford, CT

Director of Research, March 1998 – November 1999

Research Coordinator, June 1996 – February 1998

Research Assistant, September 1995 – May 1996

PROFESSIONAL AFFILIATIONS

2012 – Present Atlantic Estuarine Research Society

2011 – Present Mid-Atlantic Chapter of the Urban and Regional Information Systems Association

2010 – Present Universities Council on Water Resources

2003 – Present Society of Wetland Scientists

PRESENTATIONS

Invited Presentations

Yergeau, S.E. 2013. *Assessment of Car Wash Runoff Treatment Using Bioretention Mesocosms*. New Jersey Water Environment Association (NJWEA) Conference. Atlantic City, NJ (May 13-17, 2013).

Mangiafico, S. and S. Yergeau. 2012. *Double-Ring Infiltrometer, Penetrometer, and the 3 Rod System: Technique Demonstration*. S.O.S. – Sustainable Opportunities through Soil, Soil Health Conference. Toms River, NJ (May 30, 2012).

Conference Poster Presentations

Yergeau, S.E., A. Boyajian, and C.C. Obropta. 2012. *Evaluation of Soil Compaction in Rain Gardens*. Poster presented at 2012 Land Grant and Sea Grant National Water Conference. Portland, OR (May 20-24, 2012).

Bakacs, M., S.E. Yergeau, and C.C. Obropta. 2012. *A Preliminary Investigation for Using Rain Gardens to Reduce Pollutants in Car Wash Runoff*. Poster presented at 2012 Land Grant and Sea Grant National Water Conference. Portland, OR (May 20-24, 2012).

Yergeau, S.E., B. Ravit, and C.C. Obropta. 2011. *Kearny Marsh Hydrology Study*. Poster presented at 2011 Center for Urban Environmental Sustainability Conference. Jersey City, NJ (May 18, 2011).

PUBLICATIONS

Peer-Reviewed Journal Articles

Haberland, M., M. Bakacs, and S. Yergeau. 2013. An Investigation of the Water Quality of Rainwater Harvesting Systems. *Journal of the National Association of County Agricultural Agents*. 6(1). May 2013.

<http://www.nacaa.com/journal/index.php?jid=205>

Obropta, C.C., S.E. Yergeau, and K. Giacalone. 2011. Training Organizations in Use of a Modified Stream Visual Assessment Protocol. *Journal of Extension*. 49(5). Article No. 5TOT8.

<http://www.joe.org/joe/2011october/tt8.php>

Peer-Reviewed Journal Articles in Press

Yergeau, S.E. and C.C. Obropta. 2013. Preliminary Evaluation of Soil Compaction in Rain Gardens. *Journal of Environmental Engineering*.

[http://dx.doi.org/10.1061/\(ASCE\)EE.1943-7870.0000732](http://dx.doi.org/10.1061/(ASCE)EE.1943-7870.0000732)

Bakacs, M.E., S.E. Yergeau, and C.C. Obropta. 2013. Assessment of Car Wash Runoff Treatment Using Bioretention Mesocosms. *Journal of Environmental Engineering*.

[http://dx.doi.org/10.1061/\(ASCE\)EE.1943-7870.0000719](http://dx.doi.org/10.1061/(ASCE)EE.1943-7870.0000719)

Non-Refereed Articles

Yergeau, S., C. Obropta, and B. Ravit. 2007. *Development of a Water Budget for Kearny Marsh*. New Jersey Flows. 8(2):4.

Yergeau, S.E., D.G. Smith, and T. Bosakowski. 2006. *Avian Utilization of Created Wetlands in New Jersey*. New Jersey Birds. 32(3):61-63.

GRANT SUPPORT

NJ Sea Grant Consortium Development Research, "Developing the Sampling Protocols and Competencies Needed to Monitor Effectiveness of a Rain Garden Designed for Nitrogen Removal," Co-Investigator (with Louise Wootton, Georgian Court University), \$5,000, April 2012 – January 2014.

NJ Water Resources Research Institute, "Performance Assessment of Bioretention for Car Wash Runoff Treatment," Co-Principal Investigator (with Michele Bakacs, Rutgers Cooperative Extension), \$15,000, March 2012 – February 2014.

DRAFT RESOLUTION - July 24, 2013

TOWNSHIP OF HAMILTON
COUNTY OF MERCER, NEW JERSEY

RESOLUTION

No. _____

APPROVED AS TO FORM AND LEGALITY

FACTUAL CONTENTS CERTIFIED TO BY

TOWNSHIP ATTORNEY

TITLE

RESOLUTION AUTHORIZING THE PROPER OFFICIALS OF THE TOWNSHIP TO MAKE APPLICATION AND EXECUTE ASSOCIATED AGREEMENT FOR THE SUSTAINABLE JERSEY SMALL GRANT FUNDED BY WALMART

Whereas a sustainable community seeks to optimize the quality of life for its residents by ensuring that its environmental, economic and social objectives are balanced and mutually supportive; and

Whereas the Township of Hamilton strives to save tax dollars, assure clean land, air and water, and improve working and living environments; and

Whereas the Township of Hamilton wishes to participate in the Sustainable Jersey Program which is funded by Walmart; and

Whereas one of the purposes of the Sustainable Jersey Program is to provide resources to municipalities to make progress on sustainability issues, and they have created a grant program called the Sustainable Jersey Small Grants Program; and

Whereas it would be in the best interest of the citizens of the Township of Hamilton to apply for said monies;

Now, Therefore, Be It Resolved by the Council of the Township of Hamilton, in the County of Mercer and State of New Jersey, that the proper officials of the Township of Hamilton be and hereby are authorized to execute and sign any and all documents in order to effectuate the receipt of the grant monies between the Township of Hamilton and Sustainable Jersey for a 2013 Sustainable Jersey Small Grant funded by Walmart in the amount of \$10,000.00.

ADOPTED BY COUNCIL ON

August 20, 2013

DATE

PRESIDENT

MUNICIPAL CLERK

RECORD OF VOTE						
COUNCIL	AYE	NAY	N.V.	A.B.	RES.	SEC.
KEVIN J. MEARA						
DENNIS A. PONE						
DAVID J. KENNY						
ILEANA SCHIRMER						
EDWARD R. GORE						
X - Indicates Vote A.B. - Absent N.V. - Not Voting RES. - Moved SEC. - Seconded						

H. Grantee's Certification & Declaration

GRANTEE'S CERTIFICATION AND DECLARATION

I certify under the penalties of the law that the description of the grant project is correct in all its particulars; that the articles will be furnished or services rendered as stated therein; that all expenditures submitted will be allowable charges against the grant and that all compliance issues of this grant have been met per the grant agreement.

SIGNATURE

Robert C. Pappas

DATE

7/23/13

POSITION

TOWNSHIP PLANNER



John F. Bencivengo
MAYOR

Executive Order 09 – 001

Establishment of Hamilton Township Green Team

WHEREAS, the Township of Hamilton, in the County of Mercer, State of New Jersey, is committed to environmental sustainability and efforts that will protect and preserve our environment, for both our current and future generations; and

WHEREAS, Hamilton Township believes that the establishment of a "Green Office" will promote ways in which residents and local businesses can improve the environmental sustainability of our community and be proactive in our efforts to ensure that our Township remains "Clean and Green"; and

WHEREAS, the New Jersey Sustainable State Institute, located at the Edward J. Bloustein School of Planning and Public Policy at Rutgers University, is an organization that works with government, public interest groups, business leaders, scientists, and citizens from all walks of life, to answer the question: "Where are we, and where do we need to be, in order to preserve our quality of life and become a sustainable state?" And in using guidelines and knowledge base of the institute, Hamilton Township believes their "Green Office" will be better guided and more effective; and

NOW THEREFORE, I, John F. Bencivengo, Mayor of the Township of Hamilton, in the County of Mercer, State of New Jersey hereby designates the Hamilton Township "Green Team" that will be charged with the responsibility of advising Hamilton Township in how to best focus our efforts to improve environmental sustainability and how to best organize our "Green Office"

The Advisory Body will be comprised of the following individuals:

- The Director of the Hamilton Township Department of Community Planning and Compliance, or a designee
- The Director of the Hamilton Township Department of Public Works, or a designee
- The Director of the Hamilton Township Department of Technology and Economic Development, or a designee
- One Hamilton Township employee who has expertise in area of Land Use
- One Hamilton Township employee who has expertise in the area of Planning
- The Chairman of the Hamilton Township Environmental Commission, or a designee from that Commission
- One designee representing the Office of the Mayor
- Two members of the public, who are residents of Hamilton Township and have expertise or an interest in Hamilton Township's environmental sustainability

Witnesseth my hand and the great seal

Of the Township of Hamilton, this day of

June 3, 2009



John F. Bencivengo, Mayor

Hamilton Township – 2013 Sustainable Jersey Small Grants Program

Rain Garden Demonstration Project and Water Conservation Education Program

1. Documentation that you have an active Green Team

Summary of activities undertaken by the Green team in the past year:

1. Worked in coordination with the Environmental Commission and ANJEC on the vernal pond delineation project – mapping, site visits and data base updating.
2. Conducted 2 rain barrel workshops – funded through a 2012 Sustainable Jersey Small Grant (\$2,000.00). Due to the extreme popularity, held a third workshop with Rutgers University staff paid for by Hamilton Township with donated materials by Rutgers.
3. Provide daily assistance to the Shade Tree Commission regarding tree planting projects throughout the Township – especially focusing on our Residential Curbside Tree Planting project.