Protecting the watershed that supplies New York City with 1.3 billion gallons of fresh water per day is a gargantuan task, and New York’s watershed approach is a model for cities everywhere. The Stroud™ Water Research Center played a pivotal role — assessing the current quality of NYC’s drinking water and providing a baseline for measuring changes in the future.
Stroud™ Water Research Center’s 2007 freshwater research studies spanned:

- 1202 total research sites in the Americas
- 969 temperate river and stream sites in North America
- 233 tropical river and stream sites in Central and South America
- 21 of the 50 United States

Stroud Water Research Center’s 2007 education programs reached:

- 1880 total individuals
- 1322 secondary school and college students
- 437 adults
- 121 teachers

Board of Directors

2007

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One of the perks of my job is having an office overlooking White Clay Creek. It’s a scenic stream and I am comfortable with it. I know where it originates, the landscape through which it flows, and its significance as a source of drinking water to Newark, Delaware, and clean fresh water to the Delaware River. And, after 40 years of Stroud™ Water Research Center scientists studying almost every inch of the creek, I know the structure of its living communities from microscopic organisms to fish, how its ecosystem works, and why its ecosystem services are valuable to humanity. I have also watched thousands of students and their teachers walk past my window and immerse themselves in the creek in the name of scientific discovery, an unusual baptism that helps prepare them for a life filled with stewardship.

The White Clay outside my window is surely one of the most studied streams in the world. It is the birthplace of ideas like the River Continuum Concept that have formed the backbone of stream ecology. Yet, while I — and many others here — feel a special attachment to the creek, we have never studied it solely for its own sake. Since the Center’s beginning, we have taken the knowledge we have learned here and applied it to streams and rivers across the country and around the world. In 2007, for example, our scientists and educators were involved in major projects from the Schuylkill to the Amazon Rivers, and from the Catskill Mountains in New York to Guanacaste National Park in Costa Rica. As news reports remind us every day, there is no more critical work to be done — for us and for our children and grandchildren — than protecting our sources of fresh water.

The White Clay is our platform, our “bread and butter” if you will, for understanding how global issues, such as deforestation, land use and climate change, impact the availability and quality of clean fresh water. In 2007, it continued to be the basis for teaching people how they can care for their sources of water and the land from which that water comes. As we wade into other streams around the world, however, we never forget the source of our knowledge and our inspiration — the stream that flows past my window and through our building — White Clay Creek.
The New York City Watershed
PROTECTING THE WATER SUPPLY OF 9 MILLION PEOPLE

The system that supplies New York City with 1.3 billion gallons of clean, fresh tap water every day is massive, sprawling and complex. This 2,000-square-mile watershed, which covers all or parts of nine counties and stretches north and west beyond the Catskill Mountains to the farmlands of Delaware County 125 miles away, is a critical resource for the 9 million people it serves. For well over a century, it has also been a battleground for a number of clashes between the city’s gargantuan need for fresh water and the watershed communities’ desire to be left alone. That history came to a head in the 1990s when the city was faced with building a filtration plant to meet federal water-quality standards. At the time, construction costs were estimated at $6-8 billion, with another $200 million in annual maintenance and operating expenses; current figures now place construction costs closer to $10 billion. These expenses threatened to break the city’s budget.

The alternative to building and maintaining an expensive filtration plant requires New York City to protect — and where possible restore — the watersheds that supply its water. This is an immense undertaking, and one of the key components to meeting the federal mandate is the Stroud™ Water Research Center’s recently completed six-year assessment of the...
streams, rivers and reservoirs that provide the city's water. The New York watershed project is the largest the Center has undertaken to date — and it involved every one of its employees and drew on all the knowledge its scientists had amassed over the years.

Assessing the Quality of NYC's Drinking Water
The Center’s charge was to enhance the monitoring efforts of city, state and federal agencies with new techniques and protocols, to present a snapshot of current water quality, and to create a baseline of conditions against which future changes can be measured. The magnitude and direction of those changes will help determine whether New York City’s plan to protect and restore the watersheds is succeeding and whether those watersheds can continue to provide its people with safe, clean — and unfiltered — water.

As the Center’s final report makes clear, that will not be an easy task. But it is a doable one. The watersheds west of the Hudson River supply 90 percent of the city’s water, and that water is still in very good condition. There are danger signs, however, particularly in areas where agricultural practices and suburban development adversely impact water conditions. But if the city continues to invest in the watershed through land preservation, forest protection, best management practices and sewer improvements — for which it has to date committed more than $1.2 billion — it should be able to continue to receive unfiltered water.

Using Science to Predict the Impact of Land Use Changes on the Health of the Water Supply
Stroud scientists set up 110 sampling sites throughout the watersheds and instituted an integrated assessment plan that was unprecedented in the level of its detail and the breadth of its reach. In addition to monitoring biological and chemical
conditions in the water, Stroud scientists conducted long-term studies of the impact of human activities on the health of the entire ecosystem — a combination of looking at both the component parts and the integrated whole that had never been tried before. The scientists also tested for the presence of organic molecules ranging from fragrances (indicators of actual pollution from human septic systems) to caffeine (an indicator of potential pollutants, including pharmaceuticals), to actual pollutants, including Polycyclic Aromatic Hydrocarbons (PAHs) — all in amounts that had previously been too small for most techniques and instruments to detect.

Because of the extraordinary scope of their research, Stroud scientists were able to make significant correlations among land use, population density and water quality. Their findings not only shed light on the causes of the vast differences in water quality across the watershed, but they also enable planners to predict the impact of future land use changes on the health of the water supply.

**A Call to Action**

“What New York is seeking to do is visionary,” said Bern Sweeney, Director of the Stroud Water Research Center. “Protecting the watershed makes both environmental and economic sense — it exemplifies the concept of stewardship while saving the city billions of dollars over time. By joining with the upstate communities to ensure both appropriate...
economic activity and source-water protection, New York is investing in a natural infrastructure that can provide clean fresh water without the need for a lot of chemicals or huge treatment facilities.

“This is a model for cities everywhere,” Sweeney concluded, “but to be effective, it must involve everyone. At the watershed level, it requires a comprehensive effort that ranges from safeguarding the smallest headwater streams to improving wastewater treatment plants on large rivers. At the individual level, every act of conserving water adds up to a world of difference — and collectively these small acts can create a different world.”

**Educating the Next Generation of Watershed Stewards: From Mountaintop to Tap**

Stroud educators were also in the New York watersheds, working under a 10-year grant to teach local groups how to monitor their sources of water and to raise public awareness about the connection between human activities on the land and the quality of the water in streams and reservoirs. In addition to giving workshops throughout the region, the educators created “Mountaintop to Tap,” a three-week trek on which 6 high school students from inner-city New York and 6 from rural Delaware County traced the path of New York’s water from its sources in the Catskills to the city itself. These 12 teenagers reflected the great diversity of the watershed communities, and they became the spokespeople for all 9 million people whose lives depend on New York’s water. The trek culminated in a traveling exhibition of the students’ photographs and journal entries as well as a documentary film.

**Links**

- In *Mountain Water for a City*, David Yeats-Thomas described the early days of the New York project, chronicled the history and current political landscape of the water-supply system and the watershed communities, and analyzed the historic 1997 Memorandum of Agreement that led to the Center’s involvement.
  http://www.stroudcenter.org/research/nyproject/MountainWaterCity.pdf

- The first three-year phase of the Center’s work was presented in a special edition of the *Journal of the North American Benthological Society*.
  http://www.stroudcenter.org/research/newyorkproject.htm

- The Education Department created “Mountaintop to Tap,” a three-week trek of high school students, which people across the country followed on its website.
  http://www.stroudcenter.org/nytrek2007/
For the first two decades of its existence, the Stroud™ Water Research Center concentrated its efforts on projects in temperate streams across the United States. Then, in 1987 Dan Janzen asked the Center to expand its horizon by joining his endeavor to create the largest forest restoration project ever undertaken in the tropics. Janzen, one of the world’s most influential tropical ecologists, was putting together Guanacaste National Park in northern Costa Rica with the aim of making it a safe haven for biodiversity. He urged the Center to come to the region and help create a research and education facility and programs dedicated to fresh water.

Studying Tropical Freshwater Ecosystems

The site chosen for what is now the Maritza Biological Station lies at the base of the Orosi Volcano, not far below the Nicaraguan border and facing west to the Pacific Ocean. The dormant volcano’s virgin tropical forest is home to countless species, from jaguars to mayflies, many of them endangered; and close by the station are numerous streams whose largely undisturbed waters provide an incomparable opportunity for tropical research and a living classroom to teach others about protecting another endangered resource — water.
The research station was built through an innovative debt-for-nature swap, and the station’s dedication in 1991 by Costa Rican President Rafael Calderon signaled that the Stroud Water Research Center had begun a new chapter in its history as it set out to (1) institute a global vision for understanding freshwater issues and (2) become a leader in tropical freshwater research and education.

In 2005, as part of its Long-Term Research in Environmental Biology (LTREB) program, the National Science Foundation (NSF) awarded the Center a grant to support research at the Maritza Station. The grant, which is similar to a long-standing one NSF awarded the Center for White Clay Creek, enables Stroud scientists to conduct multi-year, interdisciplinary research into the intricate workings of a tropical freshwater ecosystem. The knowledge they gain at Maritza becomes the foundation for larger research projects in which the scientists test their findings and for education programs that provide people — from government officials to elementary school children — the stewardship tools they need to protect their sources of fresh water.

For example, Stroud scientists are currently researching how tropical streams respond to long-term phenomena such as forest restoration and climate change. Through grants from the NSF and other foundations, Stroud scientists are also studying how land use impacts water quality in streams and rivers in the Osa Peninsula of Costa Rica and the role that extreme flooding in the Andes mountains plays in preventing globally significant amounts of carbon from entering the atmosphere.

Work at Maritza has led the Stroud Water Research Center deeper into the tropics and toward a new understanding of water issues in the developing world. It formed the basis, for example, of the Center’s huge 2006 project in the Amazon headwaters in Peru in which Stroud scientists assessed the...
Stroud scientists and educators conduct workshops on water-quality monitoring in the headwaters of the Amazon River for policy makers, teachers, conservation planners and eco-tourism guides.

condition of one of the most important and vulnerable watersheds in the world — a remote place under siege, where farmers, land speculators, and road builders are cutting down some of the oldest rain forests on Earth, and where gold-mining operations sit like huge anthills along the rivers, poisoning their waters with the mercury that mineworkers use to separate the gold from the dross.

Teaching Others Science and Stewardship

As part of the project in the Peruvian Amazon, the Center presented a series of Spanish-language workshops in Madre de Dios, Peru, and the Osa Peninsula of Costa Rica. The Workshops brought together community leaders, teachers and others to discuss the critical need to protect their streams and rivers and the land around them, and to demonstrate ways to do so.

Building on these experiences, the education department recently produced a Spanish translation of its Leaf Pack Experiment Kit, whose English version is marketed nationally by the LaMotte Company — and in the fall of 2008 the Center will host a Leaf Pack workshop to train groups working on water issues in Central and South America.

The focus of this workshop — as with all the Center’s efforts in Maritza and elsewhere — is to help people around the world understand and take responsibility for their local streams and to give them the tools they need to protect the sources of their fresh water.

Link

• Information on the long-term research in environmental biology (LTREB) conducted at Maritza Station can be found at http://www.stroudcenter.org/research/ltreb/CostaRica/ acg.htm
Research Projects

2007

**Nutrient balances in an estuarine salt marsh**

**Funded by:** Kent County, DE  
**Project duration:** May 2007 - December 2008  
The study seeks to determine whether nutrients from Kent County’s wastewater treatment plant contribute significantly to the seasonal absence of oxygen in the Murderkill River estuary. Kent County will use this information to determine if the treatment plant should be moved.  
**Principal Investigator:** Anthony K. Aufdenkampe  
**Collaborators:** Paul Buckavekas (Virginia Commonwealth University), the Environmental Protection Agency (EPA) and others

**Storm-driven carbon burial in the Andean Amazon**

**Funded by:** the National Science Foundation (NSF)’s Integrated Carbon Cycle Research Program.  
**Project duration:** August 2004 - July 2007  
This project explores the role of extreme flood events during La Niña in burying — and thus preventing from entering the atmosphere — globally significant quantities of carbon.  
**Principal Investigator:** Anthony K. Aufdenkampe  
**Collaborators:** Rolf Aalto (University of Exeter, United Kingdom), Laurence Maurice (Institute for Research and Development, France)

**Particulate organic matter in great river ecosystems**

**Funded by:** EPA’s Environmental Monitoring and Assessment Program, Great Rivers Ecosystems Project  
**Project duration:** May 2004 - December 2007  
This research, which is part of a larger, multi-institution project to assess the health of the nation’s great rivers (the Mississippi, Missouri and Ohio), seeks to determine whether human impacts have increased algal production to levels that affect organic nutrient exports downstream.  
**Principal Investigator:** Anthony K. Aufdenkampe  
**Collaborators:** William Ullman and others (University of Delaware), Delaware Geological Survey, and Delaware Department of Natural Resources & Environmental Control

**Reducing nutrient levels in Chesapeake Bay**

**Funded by:** Campbell Foundation, Degenstein Foundation, McKenna Foundation, National Fish and Wildlife Foundation, PA Department of Environmental Protection (Growing Greener), Western Pennsylvania Watershed Foundation  
**Project duration:** April 2007 - June 2010

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Stroud scientist Anthony Aufdenkampe and intern Diego Flores sample sediment deposits from a cutbank of the Rio Ucayali, Peru, to determine the role of intense La Niña flooding in burying globally significant amounts of carbon, thus preventing greenhouse gases from entering the atmosphere.
This project investigates the effects of abandoned mine drainage (AMD) on the quality of water in streams that flow into Chesapeake Bay. The research evaluates how well remediation of AMD, which impacts thousands of miles of Pennsylvania streams, restores healthy conditions.

**Principal Investigator:** Thomas L. Bott  
**Collaborators:** J. Denis Newbold, John K. Jackson, Bernard W. Sweeney (Stroud Water Research Center), Matt McTammany (Bucknell University), Steven Rier (Bloomsburg University)

**Water quality and stream health in eastern Pennsylvania: 40 years of progress**  
**Funded by:** NASA  
**Project duration:** April 2007 - April 2009  
This project compares the current state of 11 Bucks County, PA streams with data collected from 1968 - 1971, before the Clean Water Act went into effect. Research comparisons will document whether the ecological condition of these streams has improved due to mandated reductions in point-source pollution discharges, deteriorated as a result of watershed development in Bucks County, or remained the same over time.

**Principal Investigator:** Bernard W. Sweeney  
**Collaborators:** Thomas L. Bott, John K. Jackson, Louis A. Kaplan, Anthony K. Aufdenkampe (Stroud Water Research Center), Ernie Schuyler (Academy of Natural Sciences of Philadelphia)

**Long-term research in environmental biology (LTREB): dynamics of stream ecosystem responses across gradients of reforestation and changing climate in a tropical dry forest**  
**Funded by:** National Science Foundation DEB 0516516  
**Project duration:** December 2005 - December 2010  
Our 20 years of research on tropical streams near the Maritza Biological Station in northwest Costa Rica provide the framework for this 5-year study of stream responses to the re-establishment of tropical dry forests, as well as to the natural moisture gradients (wet versus dry seasons, rain versus dry forest sites) that define much of the character of the Guanacaste Conservation Area.

**Principal Investigators:** John K. Jackson  
**Collaborators:** Louis A. Kaplan, J. Denis Newbold, Thomas L. Bott, and Anthony K. Aufdenkampe

**Parthenogenesis and hybridization in mayflies**  
**Funded by:** Stroud Water Research Center  
**Project duration:** Ongoing  
The focus of this research on virgin reproduction and hybridization among mayfly species, which started in the 1980s, has been expanded beyond *Centroptilum triangulifer* and *Centroptilum alamance* to include a number of related and unrelated mayfly species in Pennsylvania’s White Clay Creek, as well as streams throughout eastern North America.

**Principal Investigators:** David H. Funk, Bernard W. Sweeney, John K. Jackson

**Macroinvertebrate monitoring**  
**Project duration:** 2007  
In 2007 we conducted macroinvertebrate monitoring at sites in the following rivers and streams: White Clay Creek, PA, Alabama River, AL, Lake Blackshear, GA, Mississippi River, MO, Susquehanna River, PA, Raritan River, NJ.

**Principal Investigators:** John K. Jackson and Bernard W. Sweeney

**Spatial and temporal variation in water quality in the Schuylkill River basin**  
**Funded by:** William Penn Foundation  
**Project duration:** 2006 - 2008  
This two-year research and educational outreach project involves partnering with local watershed groups to monitor macroinvertebrates in streams throughout the Schuylkill River basin in Pennsylvania.

**Principal Investigator:** John K. Jackson

**The application of scaling rules to energy flow in stream ecosystems**  
**Funded by:** National Science Foundation DEB 0516516  
**Project duration:** August 2005 - September 2010  
We grew young deciduous trees in chambers enriched with the stable isotope of carbon, harvested and composted the trees, and extracted the compost to prepare a chemically traceable leachate of complex, microbially modified molecules. We are now following the fate of those organic molecules in laboratory microcosms and through whole stream releases of the molecules in 1st and 5th order streams to learn how organic molecules are used for energy in a river network.

**Principal Investigator:** Louis A. Kaplan

The larvae of this adult midge, *Stenochironomus poecilopterus*, from the White Clay Creek are important indicators of stream health and water quality.
Collaborators: J. Denis Newbold and Anthony K. Aufdenkampe (Stroud Water Research Center), Robert H. Findlay (University of Alabama), and Peggy H. Ostrom (Michigan State University)

**Biofilm ecology in Philadelphia’s East Park Reservoir distribution system and the efficacy of control strategies**

**Funded by:** Philadelphia Water Department  
**Project duration:** May 2006 - June 2008

Most microorganisms in nature grow attached to surfaces, encased in a protective matrix — or biofilm. Our research focuses on the growth and control of microbial biofilm in the East Park Reservoir distribution system. Ultimately, we will test different disinfectant agents for their ability to inactivate distribution system biofilms.

**Principal Investigator:** Louis A. Kaplan  
**Collaborators:** J. Denis Newbold and Anthony K. Aufdenkampe (Stroud Water Research Center), and George M. Hornberger (University of Virginia)

**Long-term research in environmental biology (LTREB): stream ecosystem structure and function in a maturing deciduous forest**

**Funded by:** National Science Foundation DEB 0424681  
**Project duration:** June 2004 - May 2009

This project addresses long-term changes in a stream ecosystem in southeastern Pennsylvania to evaluate best management practices for riparian or streamside lands and provide a time frame for ecosystem recovery during reforestation. Educational and outreach programs will transmit these findings to farmers and landowners for implementation, to public officials and community groups for policy considerations, and to teachers and students.

**Principal Investigator:** Louis A. Kaplan  
**Collaborators:** J. Denis Newbold and Anthony K. Aufdenkampe (Stroud Water Research Center), and George M. Hornberger (University of Virginia)

**Dynamics of organic particles in river ecosystems**

**Funded by:** National Science Foundation (NSF) DEB 0543526  
**Project duration:** April 2006 - March 2010

To understand and quantify the influence of small streams on downstream ecosystems we are studying the movement of microscopic organic particles using innovative methods such as tracing with fluorescent dyes, respirometry, flow cytometry, stable isotope analysis, and simulation modeling. We are also developing special educational resources under NSF’s Research Experience for Teachers (RET) program.

**Principal Investigator:** J. Denis Newbold  
**Collaborators:** Anthony K. Aufdenkampe and Louis A. Kaplan (Stroud Water Research Center), Aaron I. Packman (Northwestern University), and James N. McNair (Academy of Natural Sciences of Philadelphia)

**The importance of streamside reforestation for reducing nonpoint-source pollution in small streams**

**Funded by:** Pennsylvania Department of Environmental Protection, U.S. Environmental Protection Agency, U.S. Forest Service, and Pennsylvania Department of Natural Resources.  
**Project duration:** 1991 - 2008

This ongoing project to track water quality improvements provided by a riparian forest buffer in the Stroud Preserve, Chester County, PA, indicates that 15 years after planting, the buffer reduced the nitrate export from the agricultural watershed by 30% and the suspended sediment export by 55%.

**Principal Investigator:** J. Denis Newbold

**Effects of land use on water quality of streams and rivers on the Osa Peninsula, Costa Rica**

**Funded by:** Blue Moon Foundation  
**Project duration:** 2006 - 2007

We used species composition and relative abundance of aquatic insect populations to measure water quality changes from deforestation, cattle farming and palm oil plantations in 7 streams and rivers in the Osa Peninsula.

**Principal Investigator:** Bernard W. Sweeney  
**Collaborator:** Wills Flowers (Florida A&M University)

**Evaluating the seasonal effects of short-term temperature change on macroinvertebrates and fish in streams and rivers**

**Funded by:** PPL Corporation  
**Project duration:** 2007 - 2009

We are conducting laboratory studies to test criteria of existing legislation for protecting fish and macroinvertebrates from excessive temperature changes during a 24-hour period in both winter and summer.

**Principal Investigators:** Bernard W. Sweeney, William H. Eldridge, John K. Jackson
Education Projects
2007

Consortium for scientific assistance to watersheds
Funded by: Pennsylvania Department of Environmental Protection, Growing Greener Stewardship Fund
Project duration: 2007
Stroud™ Water Research Center partnered with 8 organizations across Pennsylvania to form the Consortium for Scientific Assistance to Watersheds, with the goal of helping conservation organizations build the knowledge and skills they need to conduct watershed assessments and restoration.

Art and science
Funded by: Point Lookout Farmlife Foundation and Water Preserve Foundation
Project duration: 2007
Stroud educators conducted teacher workshops in western Pennsylvania on the use of artistic expression in a variety of media to convey the science of stream ecology.

We also continued our program of having high school and college students combine scientific and artistic explorations on the Brandywine River and at Point Lookout, the farm of Jamie and Phyllis Wyeth.

Leaf Pack Network® — engaging and linking students in the Chesapeake Bay watershed
Funded by: National Oceanic and Atmospheric Administration
Project duration: 2006 - 2008
The goal of this project is to provide meaningful watershed experiences to underserved teachers and students in the Chesapeake Bay watershed — including arming them with the knowledge of what they can do upstream to restore the bay — by enabling them to carry out hands-on, “boots-in-the-water” scientific and monitoring experiments, interpret the results, and share their findings with other schools.

Mountaintop to Tap trek
Funded by: the Leo Model Foundation, New York State Department of Environmental Conservation, New York City Department of Environmental Protection, the Virginia Wellington Cabot Foundation, and several individual donors
Project duration: July 2007 - July 2008
Through this watershed education program, conceived and organized by the Stroud Water Research Center, 12 rural and urban high school students traced New York City’s water supply from its sources in the Catskill Mountains to Central Park in Manhattan. Students documented their 200-mile journey with a public exhibition of their photographs and journal entries, and the trek was the subject of an independent documentary film.

Schuylkill buffer strategies
Funded by: The William Penn Foundation
Project duration: 2005 - 2008
This project combines sound science, public policy and open dialogue in an effort to help municipalities in the Schuylkill River Basin of Pennsylvania protect their freshwater resources by creating riparian overlay ordinances and providing public education on the benefits of streamside forests.

Students test water quality at Chestnut Creek in the New York City Watershed as part of the Mountaintop to Tap program.
ギブズおよび寄付

2007

制限内寄付

The Davenport Family Foundation
Mayra & Steve Stroud

Mr. & Mrs. Gilbert Butler
Anne Stroud Hannum

Daniel, Gayley & Joan Blaine
Seth Bradford

Annual Fund Contributions

2007 marked our 40th Anniversary. As a special acknowledgement of this milestone, many of you increased your gifts to the Annual Fund, enabling us to surpass our financial goal — and continue the freshwater research and watershed education programs that are helping to protect, preserve and restore fresh water everywhere. With loyal support from you — the Friends of the Stroud Water Research Center — our work will continue well beyond our 50th anniversary.

Friends of the Stroud Water Research Center receive Upstream newsletter and invitations to our events. In an effort to be better environmental stewards, we now offer these publications electronically and send many communications via email. If you would like to receive Upstream and event invitations by email, please contact our Development department and provide us with your email address.

$5000 and up

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Brown Brothers Harriman & Co.
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Mr. & Mrs. Peter J. Weygandt
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Lydia Willits Bartholomew
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Dr. & Mrs. Bernard Sweeney
Mr. & Mrs. James E. Thomas
Anonymous (1)

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Care has been taken to ensure the accuracy and completeness of this listing. We regret any omission and ask that you bring any corrections to our attention.
Members of the Mayfly Club, a group of young adults dedicated to raising awareness and support for the Stroud™ Water Research Center and the issues facing fresh water, collect macroinvertebrate samples to understand the quality of the water in Philadelphia’s Wissahickon Creek.
Kristine Tompkins, founder of the Patagonia Land Trust and former CEO of Patagonia, Inc. addresses guests at our annual fundraising gala, the Water’s Edge.

Photo: Bill Fitch
Financials 2007

Operating Statement for the year ended December 31, 2007

Revenues & Support

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<td>Other Contributions &amp; Income</td>
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Expenditures

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<td>429,377</td>
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<tr>
<td>Development/Outreach</td>
<td>147,626</td>
</tr>
<tr>
<td>Information Services</td>
<td>258,744</td>
</tr>
<tr>
<td>Administration</td>
<td>425,473</td>
</tr>
<tr>
<td>Facilities</td>
<td>298,954</td>
</tr>
<tr>
<td>Other</td>
<td>105,990</td>
</tr>
<tr>
<td><strong>Total Expenditures</strong></td>
<td><strong>4,043,864</strong></td>
</tr>
</tbody>
</table>

2007 Operating Revenues & Support

- Research: 52%
- Endowment: 24%
- Annual Fund: 9%
- Education: 9%
- Other: 6%

2007 Operating Expenditures

- Research: 58%
- Education: 11%
- Development/Outreach: 4%
- Information Services: 6%
- Facilities: 7%
- Other: 3%
- Administration: 11%
Staff, Interns and Volunteers

2007

Administration
Bernard W. Sweeney
President, Director &
Senior Research Scientist
John D. Pepe
Controller & Treasurer

STAFF
Shelby J. vonTill
Executive Administrative Assistant

Biogeochemistry
Louis A. Kaplan
Senior Research Scientist

STAFF
Jessica Dow
Intern
Michael D. Gentile
Research Tech III
Joshua Z. Goldenberg
Research Tech II
Andrew M. Kielt
REU Participant
Michelle E. Knabb
REU Participant
Caroline J. Lee
REU Participant
Xueju Lin
Post-Doctoral Research Associate
Laura McDavid
Intern
Jean H. Peirson
Lab Assistant
Sherman L. Roberts
Research Tech III
Ian D. Rowe
Intern
Sarah L. Smith
Research Tech II

GRADUATE STUDENTS
Karen Hogan
Ph.D. Candidate, University of Pennsylvania
Chris McLaughlin
Ph.D. Candidate, University of Pennsylvania
David Richardson
Ph.D. Candidate, University of Maryland

VOLUNTEERS
Rebecca Mitchell
Volunteer

Organic Geochemistry
Anthony K. Aufdenkampe
Assistant Research Scientist

STAFF
Stephanie A. Dix
Research Tech II
Linda G. Carter
Research Associate
Jade K. Fisher
Intern
Alaa Mahmoud
Intern
Stephen M. Mayer
Intern
Tara M. Speck
Intern
Kelly M. Taggart
Intern
Benjamin B. Zorach
Intern

VOLUNTEERS
Lakshmi Madhavan
Intern
Vidya Venkat
Intern

Development
Claire Birney
Director of Development & Secretary to the Board of Directors

STAFF
Kay Dixon
Associate Development Director

VOLUNTEERS
Melanie Miller
Jean H. Peirson
Trish Scott
Andrea Sweeney

Entomology
John K. Jackson
Senior Research Scientist

STAFF
Juliann M. Battle
Research Tech IV
Michael C. Broomall
Research Tech II
David H. Funk
Research Tech V
Sally Peirson
Research Tech III
Kyle C. Stem
Research Tech II
Roberta M. Weber
Research Tech III
Rachel E. Barker
Intern
Katie Burlew
Intern
Travis C. Burt
Intern
Meredith E. Chalfant
Intern
Erin R. Groth
Intern
Trevor D. Meckley
Intern
Jenna M. Ricchiuti
Intern
Scott M. Starr
Intern
Tessa D. Tomasacci
Intern

VOLUNTEERS
Lauren Annett
Intern
Cynthia McGauley
Intern
Lori Ryan
Intern
Kallyn J. Seidler
Intern

Education
Susan E. Gill
Director of Education

STAFF
James G. Blaine
Research Associate
Christina Medved
Education Programs Manager
Kristen S. Travers
Education Programs Manager
Vivian L. Williams
Education Programs Manager

Facilities
David H. Funk
Director of Facilities

STAFF
William L. Milliken Jr.
Maintenance Mechanic
Tonya Prigg
Janitor
Salomon Romero
Woodlot Tech
Javier Tinoco
Woodlot Tech
Robert A. Schluter
Intern
Alex M. Stroud
Intern

Information Services
Charles L. Dow
Director of Information Services

STAFF
Melanie L. Arnold
Data Analyst
Heather P. Brooks
Data Analyst & Web Designer
Elizabeth S. Gregg
System Administrator
Bonnie L. Zobel
Intern

Maritza Station*
Costa Rica
Rafael A. Morales
Station Manager & Research Tech

STAFF
Cristian A. Collado
Research Tech

Microbiology
Thomas L. Bott
Senior Research Scientist & Vice President

STAFF
George T. Dang
Intern
David J. Fralinger
Intern
David S. Montgomery
Research Tech III

Research Support

STAFF
Catherine Ferranto
Research Assistant

Nancy Weigel
Intern

* The Maritza Station staff is employed by the Asociación Centro de Investigación Stroud, a non-governmental organization in Costa Rica which serves as the umbrella organization for all the Center’s research and education activities in Central and South America.