



IESP

The Institute for Environmental Science and Policy
University of Illinois at Chicago

Message from the Director

During the past one hundred and fifty years, the approach taken by the United States to manage the environment in which we live has undergone significant changes. Beginning with the conservation movement, which focused on the reduction of the most visible and easily sensed contaminants, and proceeding through the enactment of comprehensive legislation aimed at cradle-to-grave control of toxic and hazardous substances, the era of strategic environmental management is emerging. In this era, control of contaminants is integrated with the larger themes of modern human society and their relation to ecosystem function – a union that has created the environmental sustainability movement.

This evolution in environmental policy is consistent with the nature of environmental problems, which have increasingly become regional and global in scope. The development of scientifically supported policies capable of fostering and implementing comprehensive solutions to these problems requires the input of many from across the disciplinary spectrum. It is against this background that the Institute for Environmental Science and Policy (IESP) at the University of Illinois at Chicago has evolved.

This, our first annual report, provides a wealth of information on environmental scholarship ongoing at UIC. I invite you to read it through, and hope that you will agree that taken collectively these activities define a rich and diverse environmental landscape, one that is making significant contributions to the advancement of knowledge necessary for the development of enlightened environmental policy.

~ Thomas L. Theis, Director

The photographic images in this annual report were taken from two collections. The rural images are from the Frank Sadorus Collection of the Illinois State Museum. Photographer Frank Sadorus (1880 – 1934) lived and worked on his family's central Illinois farm. From 1907 to 1917, Mr. Sadorus captured many images of his family's life working their Illinois Farm. As the agrarian Illinois economy yielded to an industrial form of agriculture and logging, his photography captured images of the changing Illinois landscape. The collection was brought to the public's attention by Mr. Raymond Bial, a freelance writer/photographer, who donated the collection to the Illinois State Museum.

The urban images are from the Copelin-Parker Photographic Archive in the Special Collections of the UIC Richard J. Daley Library. The Copelin-Parker Archive is an extraordinary collection of historic Chicago photographs assembled by Mr. James Parker, the unofficial photographer for the late Mayor Richard J. Daley. Mr. Parker amassed the collection in the 1960s while working for Copelin Commercial Photography studio, one of Chicago's oldest continuously operating businesses. During his early years at Copelin, Mr. Parker managed legal photography for the City of Chicago. Whenever there was an incident involving city property, Parker's team was there to document it in photographs. The collection is also very strong in historic images from the Bronzeville neighborhood, with photographs of original sites and the construction that replaced them.

IESP expresses its gratitude to Mr. Doug Stapleton, Assistant Curator for the Illinois State Museum, for permission to reproduce some of Mr. Sadorus' images and to Mr. David Austin, Curator of the Copelin-Parker Photographic Archive, UIC Richard J. Daley, for permission to use images from the Parker Collection.

IESP

The Institute for Environmental Science and Policy

The Institute for Environmental Science and Policy – IESP – is a University-wide research unit organized under the Office of the Vice Chancellor for Research at the University of Illinois at Chicago (UIC). Established by the UIC faculty through formal application to the Provost, IESP was created in 2001 to advance interdisciplinary inquiry in environmental science and policy at UIC. Faculty engaged in environmental inquiry at UIC span four colleges and nine departments.

Environmental change is a certainty in our rapidly developing and urbanizing world; however, complete conceptualization of how human activities and institutions affect this change represents a key challenge for the nation's scientific community. Describing these relationships in a way that can advance effective management requires collaboration among many disciplines. In responding to this challenge, IESP's mission is to advance interdisciplinary research and scholarship within the broad topic of the environment with a core theme of expanding our understanding of how human systems and institutions impact ecosystem and human health. This mission is built on a three-tiered foundation:

1. **Research** – Facilitating interdisciplinary collaboration among UIC's environmental researchers and scholars to develop new paradigms of inquiry in environmental science and policy research
2. **Scholarship** – Preparing the next generation of environmental scholars and decision-makers through interdisciplinary education
3. **Engagement** – Assembling of environmental scholars and researchers with counterparts in the public and private sectors to devise workable solutions for society's complex environmental challenges

This first official report of the Institute summarizes IESP's activities in these three areas over the past two years, with an emphasis on projects and efforts undertaken in 2003.





Executive Summary

IESP was created in 2001 to advance interdisciplinary research and scholarship within the broad topic of environmental sciences. Its core theme is to expand our understanding of how human systems and institutions impact ecosystem and human health. This mission is built on a three-tiered foundation: research, scholarship, and engagement.

Research – As of 2003, research expenditures credited to IESP are in excess of \$320,000, up from \$19,000 in 2002. Total environmental research commitments at UIC are approximately \$4.2 million per year and have risen by 68% over the past four years. In 2003, IESP received five new grants from external sources and continued work on eight projects. Current grants submitted and pending through IESP now total \$1.9 million. In 2002 and 2003, IESP also funded eight seed grants through its Faculty Scholar and Faculty Cluster Programs.

Scholarship – IESP continued to foster interdisciplinary education on environmental issues through the Doctoral Fellowship Program and the Environmental Manufacturing and Management (EvMM) Program sponsored through the National Science Foundation's Interdisciplinary Graduate Education Research and Training (IGERT) Program.

Engagement – IESP encouraged dialogue among its many members concerned with the quality of the local and global environment. In 2002 and 2003, IESP sponsored the Campus Seminar Series that brought recognized thinkers and leaders in sustainability theory and practice to UIC. In April, 2003, IESP held its first Conference on the Environment which brought together all of UIC's environmental researchers and students to explore the full scope of UIC's environmental inquiry.

IESP is directed by **Thomas L. Theis** of the Civil and Materials Engineering Department. Center activities are guided by an ad hoc Steering Committee that consists of twenty-one UIC faculty members from twelve departments (see page 16 for a complete list). The Steering Committee meets monthly to plan initiatives and chart the course of IESP. An External Advisory Board made up of members from outside the UIC community meets annually to lend oversight to IESP activities and to provide strategic direction (see page 6 for a list of the External Advisory Board members). Since 2002, IESP has employed two fulltime staff members: **Daniel T. McGrath** service as the Institute's Associate Director and **Maggie Jameson** serves as the Assistant to the Director. IESP reports directly to the UIC Vice Chancellor for Research.

Message from the External Advisory Board

The External Advisory Board of the Institute for Environmental Science and Policy at UIC is pleased to participate in the important work of the Institute. The Institute holds great promise for the people of Illinois and Chicago, by bringing the organizational capacity and commitment necessary to foster multi-dimensional, cross-disciplinary research needed to address complex environmental and ecological challenges and opportunities present in our urban setting. We have many complicated challenges, including record asthma rates, air pollution, energy reliability needs, climate change stresses, invasive species and growth demands that continue to transform our water resources and land-use patterns. The Institute presents a vital opportunity to leverage the significant capacity of UIC to provide first rate, real-time, cutting edge research to help understand and address these challenges successfully. The success of the Institute will contribute to the health of our community and intellectual life of the region.

The External Advisory Board seeks to provide critical support to the Institute. In the first instance, the Board will provide direct input and independent, objective advice to the Institute regarding the issues and needs of practitioners, businesses, civic organizations, government agencies and advocates for scientific research, data and analysis on current and emerging environmental challenges. The Board also seeks to provide an avenue for communicating the research and knowledge generated through the work of the Institute to practitioners outside the Academy. In addition, the Board will assist in establishing strategic relationships and pursuing collaborative connections and information sharing between the Institute and parties interested and able to participate in applied research and implementation of intellectual products generated by members of the Institute. Further, the Board intends to provide support to the Institute in identifying and securing resources for the research and growth of the Institute as a center of academic excellence.

~ Henry Henderson, JD, Board Chairman



IESP External Advisory Board Membership

Bill Abolt, Chicago Office Manager
Shaw Environmental Inc.
Chicago, IL

Braden Allenby, Professor
Arizona State University
Tempe, AZ

Jack Azar, Vice President
Xerox Corporation
Webster, NY

Gregory Biddinger, Environmental Issues Manager
Exxon Mobile Refining
Fairfax, VA

Herberto Cabezas, Branch Chief
Sustainable Environments Branch, USEPA
Cincinnati, OH

Donna Ducharme, Co-director
The Delta Institute
Chicago, IL

David Dzombak, Professor of Environmental Engineering
Carnegie Mellon University
Pittsburgh, PA

John R. Ehrenfeld, Professor Emeritus
Massachusetts Institute of Technology
Cambridge, MA

Richard Guimond, Vice President
Motorola Corporation
Schaumburg, IL

Henry Henderson, Partner
Policy Solutions, Ltd.
Chicago, IL

Sadhu Johnson
Assistant to the Mayor for Green Initiatives
Chicago, IL

Michael Kavanaugh, Vice President
Malcolm Pirnie, Inc.
Emeryville, CA

Shiela Leahy
SAL Consulting Inc.
Lake Bluff, IL

Howard Learner, Executive Director
Environmental Law and Policy Center
Chicago, IL

Bob Lieberman, Chief Executive Officer
Center for Neighborhood Technology
Chicago, IL

Cecil Lue-Hing, President
Cecil Lue-Hing & Associates
Chicago, IL

Suzanne Malec, Deputy Commissioner
City of Chicago Department of Environment
Chicago, IL

Bharat Mathur, Deputy Regional Administration
US EPA Region V
Chicago, IL

Jeffery Perl, President
Chicago Chem Consultants Corp.
Chicago, IL

Robert Pfahl, Vice President of Operations
National Electronics Manufacturing Initiative, Inc.
Herndon, VA

Paul Robillard, Director
World Water Watch
Cambridge, MA

John Rogner, Chicago Field Supervisor
US Fish and Wildlife Service
Barrington, IL

Joseph Shacter, President
Peggy Notebaert Nature Museum
Chicago, IL

John Smith, Section Head, Environmental Health & Safety
Alcoa, Inc.
Alcoa Center, PA

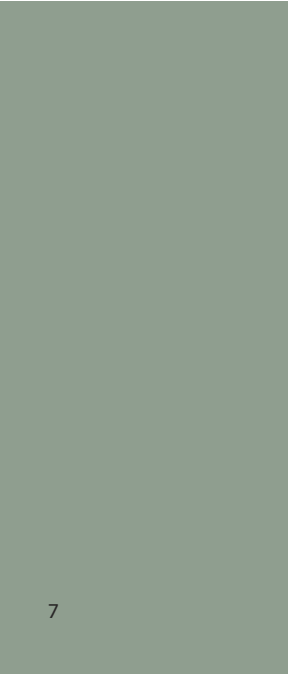
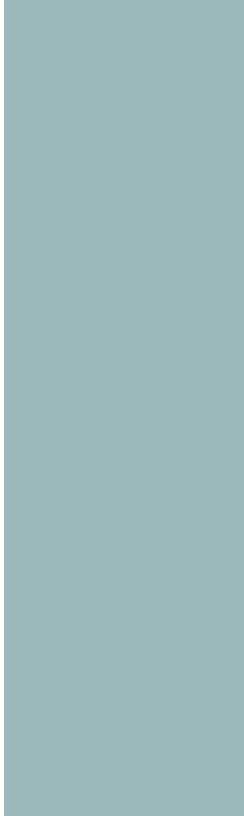
John Sullivan, Chief Scientist
Ford Research Laboratory
Dearborn, MI

David Ullrich, Executive Director
Great Lakes Cities Initiative, Northeast-Midwest Institute
Chicago, IL

Michael Wang, Transportation Environmental Scientist
Argonne National Laboratory
Argonne, IL

Charles Whelan, Author and Lecturer
Harris School of Public Policy, University of Chicago
Chicago, IL

Derek Winstanley, Chief
Illinois State Water Survey
Champaign, IL



RESEARCH

IESP facilitates interdisciplinary collaboration among UIC's environmental researchers and scholars to develop new paradigms of inquiry in environmental science and policy research. IESP's key research focus areas are urban air quality, climate change impacts, green production, industrial ecology, and environmental geochemistry.

IESP continues to both award and procure research grants that advance UIC's role to furthering our understanding of environmental problems. 2003 has been a successful year for IESP. In 2003, research expenditures credited to IESP are in excess of \$320,000, up from only \$19,000 in 2002. Total environmental research commitments at UIC are approximately \$4.2 Million per year and have risen by 68% over the past four years. In 2003, IESP received five new grants from external sources and continued work on eight projects. Current grants submitted and pending through IESP now total \$1.9 Million. In 2003, IESP funded four seed grants through its Faculty Scholar Program to encourage development of further collaborative research.

Grants and Contracts Awarded to IESP

IESP received the following five research grants in 2003:

Reactivity of Primary Soil Minerals and Secondary Precipitates beneath Leaking Hanford Waste Tanks (Kathryn Nagy, \$540,000, 2 years, US Department of Energy, Office of Science, Environmental Management Science Program)
The grant supports research on how radioactive and toxic contaminants released from leaking single-shell tanks at the Hanford, WA nuclear facility may be transported or immobilized in the subsurface. This research specifically focuses on determining rates and mechanisms of silicate dissolution and secondary mineral formation in the high pH, high aluminum, and high nitrate solutions that are characteristic of the leaking tank wastes. Selected radionuclide uptake reactions that occur simultaneously are also being quantified. A full understanding of the how the waste has interacted with the soil and sediment mineral particles is critical to the management and clean-up of the site.

Clean Batch Manufacturing with Uncertainty Management (Andreas Linninger, \$300,000, 3 years, from the National Science Foundation Technology for a Sustainable Environment Program)

This grant supports the development of a computer-aided batch processing technology that unifies environmental objectives with production targets. It incorporates mathematical algorithms to quantify uncertainty and manage environmental risk. This research will enable pharmaceutical manufacturers to identify plant-wide batch processing and environmental remediation policies with the best possible economic-environmental tradeoffs.

Life Cycle Analysis of Biolubricants for Aluminum Rolling (Thomas Theis, \$250,000, 2 years, from the National Science Foundation Technology for a Sustainable Environment Program)

This grant supports research to examine issues associated with substituting bio-based lubricants for petroleum-based lubricants in industrial applications. The objectives of the research are: (1) to perform a life cycle assessment on the use of biolubricants; (2) to perform a mass-balance study, at the bench scale, of VOC losses from both types of lubricants; and (3) to perform an economic analysis of biolubricant use for application to the aluminum rolling industry, including the impact of new VOC and carbon emissions credit trading.

Economic and Environmental Impacts of Bio-based Production (Thomas Theis, \$100,000, 1 year, from the National Science Foundation Biocomplexity Program)

This grant supports a planning process for the investigation of the impacts associated with the development and manufacture of bio-based products. There are three important outstanding questions related to bio-based products: First, is bio-based refining on a large scale more efficient than petroleum-based feedstock production? Second, since biorefining uses only a portion of the feedstock species, leaving much of the plant mass unused, are total wastes to land, air, and water less than petroleum-based products? Lastly, the durability of bio-based products introduced into commerce is largely unknown. How do they compare against petroleum-based products? This research project will begin to explore these questions through the following actions:

1. In a workshop format, the development of consensus among experts on the state of the bio-processing industry
2. A life cycle analysis (LCA) of polylactic acid (PLA)
3. The development of educational materials based on the LCA and workshop outcomes in conjunction with the Peggy Notebaert Nature Museum.

The Calumet Area Ecological Management Strategy: Measuring the Non-market Economic Benefits (Daniel McGrath, \$53,500, 2 years, Illinois-Indiana Sea Grant, US Department of Commerce)

This grant supports economic valuation research to estimate the non-market benefits accruing to the citizens of the region from the City of Chicago's proposed restoration of a wetland site in the Calumet region of Chicago, Hegewich Marsh, and its development as the new Ford Calumet Environmental Center.





RESEARCH PROFILE

Dr. Peter A. Scheff, Professor in the Division of Environmental and Occupational Science of the UIC School of Public Health, has over 20 years of experience and has worked extensively with national, state and local public health communities on environmental health problems and issues. Dr. Scheff currently serves as the Director of Industrial Hygiene Education and Research Center funded by the National Institute for Occupational Safety. Dr. Scheff's primary research area is in urban air pollution receptor modeling. This research provides a way of directly linking observed air pollution concentrations back to their sources. This knowledge provides critical information for the development of effective air pollution intervention strategies. With this research expertise, Dr. Scheff has served as a technical advisor to the USEPA Region V. for the past five years and is currently working with the agency on regional air quality problems including sources and control of ozone, respirable particulate matter, and air toxics. Additionally, Dr. Scheff directs an air pollution training center for USEPA which educates regulatory professionals in the application of science to air quality management issues. Dr. Scheff has lectured internationally on the application of receptor modeling to urban air quality and was a visiting professor at the University of Cartagena, Cartagena, Spain.



Seed Grants

In 2003, IESP awarded \$33,000 in grant funds to four research projects in 2003 through IESP's Faculty Scholar Program. These seed grant projects will lay the groundwork for future proposals to other external funding sources:

IESP Faculty Scholars

Year	Name	Department	Amount	Project
2002	William Becker	Art and Design	\$5,000	The Chicago Aeroturbines Calibration Project
2002	Steve Forman	Earth and Environmental Sciences	\$5,000	Hydrologic Variability in the Great Lakes in the 20th and 21st Centuries
2002	Doug Kosar	Energy Resources Center	\$5,000	Development of Multi-Disciplinary Projects in Indoor Environmental Quality
2002	Victoria Persky	Epidemiology and Biostatistics	\$32,000	The Effect of Indoor Environment on Health
2002, 2003	Andreas Linninger	Chemical Engineering and Computer Science	\$5,000	Pharmaceutical Manufacturing for Optimal Economic and Environmental Performance
2003	Karl Rockne	Civil and Materials Engineering	\$6,000	Models for PAH/PCB Volatile Releases from Sediment During Dredging, Dewatering and Phytoremediation
2003	Martin Jaffe	Urban Planning and Policy	\$9,000	Using Bioassessment and Ecological Monitoring to Develop Site-specific Non-point Source Pollution Controls
2003	Hormoz Bassirirad, Mary Ashley, and Steven Forman	Biological Science and Earth and Environmental Sciences	\$13,000	Global Climate Change Cluster: The Role of Extreme Events on the Physiology, Ecology and Evolution of Plant Communities



SCHOLARSHIP

IESP prepares the next generation of environmental scholars and decision-makers through interdisciplinary education.

A key element of IESP's mission is to advance collaborative graduate education in environmental issues within the traditional disciplinary framework of the University – engineering, the sciences, economics, and urban planning, among others. In 2003, IESP continued to foster interdisciplinary education on environmental issues through the Environmental Manufacturing and Management (EvMM) Program sponsored through the National Science Foundations Interdisciplinary Graduate Education Research and Training (IGERT) Program.

The EvMM Program

The goal of the EvMM Program is to support interdisciplinary study that seeks to forge new models of integrative scholarship in environmental technology and management issues which builds upon the traditional disciplines of engineering, the sciences, economics and urban planning. EvMM participants, as well as other interested students engage in periodic discussions on the environment through an interdisciplinary graduate seminar. Since 2002, The IESP EvMM Program has supported ___ PhD candidates from __ departments.

2003 EvMM Graduate Students

Name	Department	Faculty	Project
Angela Adamyan	Mechanical Engineering	Thomas Theis	Environmentally Conscious Failure Analysis of Manufacturing Systems
Aninda Chakraborty	Chemical Engineering	Andreas Linninger	An Algorithm of Optimal Environmental Legislation
Amy Landis	Civil and Materials Engineering	Thomas Theis	Environmental Impacts of Bio-based Production
Andreas Malcolm	Chemical Engineering	Andreas Linninger	Emission Trading for Sustainable Pharmaceutical Process Design
Shelie Miller	Civil and Materials Engineering	Thomas Theis	Environmental Implications of Substituting Biolubricants for Mineral Oils in Industrial Applications
Steffen Mueller	Urban Planning	Rachel Weber and Policy	An Investigation into the Barriers of Combined Heating and Power Technology Adoption
Brian Scott	Economics	Richard Kosobud	The Limiting Effects of Banking on Pollution Permit Markets: An Experimental Analysis



The EvMM Program *(con't.)*

IESP continues to collaborate with other regional environmental institutions to advance environmental education. In 2003, IESP established a partnership with the Peggy Notebaert Nature Museum of the Chicago Academy of Sciences to provide educational outreach beyond the scientific community. The newest of Chicago's museums, The Nature Museum maintains extensive educational programs on the environmental quality of the Chicago region and places emphasis on promoting awareness of the implications of human interaction with natural systems. In conjunction with IESP's ongoing research into biocommodities, the Nature Museum is developing a bio-based products exhibit that will include interpretation of sustainable agriculture and biocommodity formation and biodegradation.

Carolina Larrson, a Masters degree student from the Swedish University of Linkoping, under the direction of IESP Director Thomas Theis and UIC Adjunct Professor of Architecture, Michael Iversen, undertook a full-scale energy audit of building envelopes of the entire UIC campus. A summary of the recommendations for the UIC campus was presented to the UIC Faculty Senate Subcommittee on Buildings and Grounds.





ENGAGEMENT

IESP assembles environmental scholars and researchers with counterparts in the public and private sectors to devise workable solutions for society's complex environmental challenges

In 2003, IESP encouraged dialogue among its many members concerned with the quality of our region's and our earth's environment. IESP sponsored its Campus Seminar Series in 2002 and 2003, bringing recognized thinkers and leaders in sustainability theory and practice. In 2003, IESP was a key sponsor in the 2003 UIC Earth Month activities, which included sponsoring lectures and the organization of the Sustainable Energy and Transportation Show. Additionally, IESP held its first Conference on the Environment which brought together all of UIC's environmental researchers and students to explore the full scope of UIC's environmental inquiry.

The Campus Seminar Series

In 2002, IESP inaugurated its Campus Seminar Series. Over 2002-03, IESP hosted eight environmental researchers from around the nation. The dominant theme of the 2002-03 Seminar Series was to host speakers with unique, and perhaps controversial, perspectives on improving the nation's environmental quality.

2002-03 Speakers

Braden Allenby	ATT	<i>Terraforming Our Earth: Earth Systems Engineering and Management</i>
William Schlesinger	Duke University	<i>The Role of Forests in Combating the Rise of Carbon Dioxide and Global Warming</i>
Herberto Cabezas	Sustainable Environments Branch, USEPA	<i>Environmental Systems Management and Sustainability Theory</i>
Barbara Karn	USEPA	<i>Perspectives on Sustainability</i>
A. Denny Ellerman (Keynote Speaker, 2003 UIC Conference on the Environment)	Center for Energy and Environmental Policy Research, MIT	<i>Markets for Environmental Goods</i>
Wes Jackson	The Land Institute	<i>A False Hypothesis? Implications for Agriculture and Society if True</i>
John Ehrenfeld	MIT	<i>Sustainability by Design</i>
Michael Wang	Argonne National Laboratory	<i>Wells to Wheels: Energy and Emission Effects of Fuel Cell Vehicles</i>

IESP also co-hosted three additional speakers reaching a wide audience as part of the 2003 UIC Earth Month activities. These included lectures by Jacky Grenshaw, Center for Neighborhood Technology, on "Transportation Options for the Future: Planning for Success or Repeating Past Mistakes;" William Worn, UIC Adjunct Professor of Architecture, on "All Plans are Politics: Design as a Tool for Change" and John Rogner, Chicago Director, U.S. Fish & Wildlife Service on "Preserving Chicago Wilderness."

New Appointments and Milestones

IESP members and affiliated faculty achieved the following professional appointments and awards, identifying their success in establishing meaningful dialog with their academic colleagues and society:

Kathryn Nagy, Professor of Earth and Environmental Sciences, was the first joint appointment for IESP in 2002. Dr. Nagy's research expertise is in environmental geochemistry with a focus on mineral-water interface kinetics and thermodynamics and clay chemistry. Dr. Nagy has recently been named President of the Clay Minerals Society and was appointed Associate Editor for *Geochimica et Cosmochimica Acta*, the Journal of the Geochemical Society.

Jane Lin, Assistant Professor of Civil and Materials Engineering, has been jointly appointed to IESP and the UIC Transportation Center in 2003. Most recently Dr. Lin was a post-doctoral researcher at the Harvard University Center for the Environment. Dr. Lin's research focus is on the advanced modeling of traffic flow, driving behavior, and air pollutant emissions.

Nurtan Esmen, Professor of Environmental and Occupational Health Sciences in the UIC School of Public Health has been jointly appointed to IESP in 2003. Joining UIC from the University of Oklahoma, Dr. Esmen's research focus is on aerosol physics, exposure characterization, and decision-making theory. Dr. Esmen was recently appointed to the Editorial Board of the Journal of Environmental and Occupational Hygiene.

IESP Director, **Thomas Theis**, has been appointed to the Executive Committee of the US EPA Science Advisory Board.

Martin Jaffe, Associate Professor of Urban Planning and Policy, was appointed by Illinois EPA Director, Rene Cipriano, to the State's Basinwide Management Advisory Group to develop Agency guidance on sewer extension and watershed management policies. In addition, Prof. Jaffe was appointed to the US EPA Great Lakes National Program Office to the Lake Michigan Forum to provide input into the Agency on its Lake Michigan Lakewide Management Plan.

Karl Rockne, Associate Professor of Civil and Materials Engineering, has received the Young Investigator Award (2004-08) from the National Science Foundation.

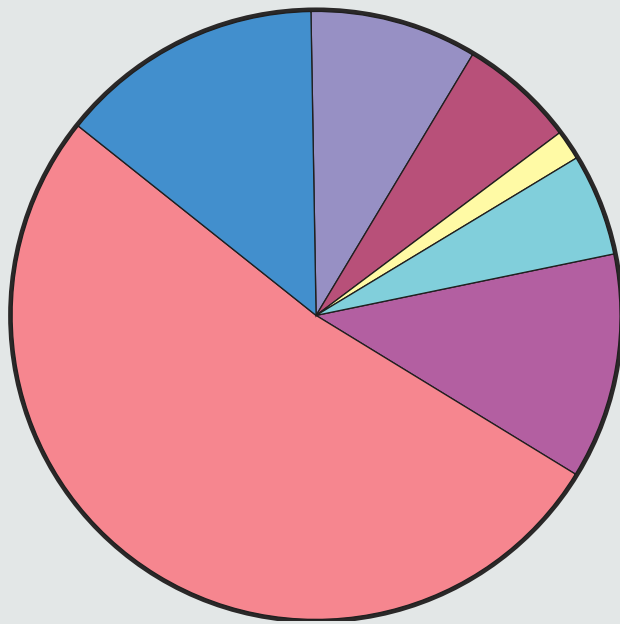
Andreas Linninger, Associate Professor of Chemical Engineering and Computer Science, was awarded the UIC College of Engineering's Faculty Research Award.





General Information

In fiscal year 2003 (July 1, 2002 through June 30) 48% of IESP's total expenditures of \$633,000 was spent on research, education, and outreach on environmental science and policy. The remaining 52% of the budget was directed towards administration of the Institute and for the co-appointment salaries with IESP partner departments. A portion of this funding, received from a 5-year seed grant from the UIC Office of the Vice Chancellor for Research was magnified by the external grants and contracts awarded to IESP faculty affiliates. In calendar year 2003, research expenditures credited to IESP are in excess of \$320,000, up from only \$19,000 in 2002. Total environmental research commitments at UIC have risen to approximately \$4.2 Million per year and have risen by 68% over the past four years. In 2003, IESP received five new grants from external sources totaling \$1,243,500 and continued work on eight ongoing projects.



IESP 2003 Expenditures

- Faculty Scholars
- EvMM Fellowships
- Advertising and Publications
- Conference & Seminars
- Joint Faculty
- Salaries
- Administration



Administration and Faculty Participation

IESP is directed by University of Illinois at Chicago Professor, Thomas L. Theis, of the Civil and Materials Engineering Department. IESP membership is open to all UIC faculty. Center activities are guided by an ad hoc Steering Committee that consists of twenty-one members plus the IESP Director and Associate Director. The Steering Committee meets monthly to plan initiatives and chart the course of IESP. An Advisory Board of twenty members from outside the UIC community meets annually to lend oversight to IESP activities and strategic direction (see page 4 for a list of the External Advisory Board members). Since 2002, IESP has employed two fulltime staff members. Daniel T. McGrath serves IESP as the Institute's Associate Director. Maggie Jameson serves as Assistant to the Director. IESP reports directly to the UIC Vice Chancellor for Research.

2003 IESP Steering Committee

Mary Ashley	Biology
Gib Bassett	Finance
Hormoz BassiriRad	Biology
Kenneth Brezinsky	Mechanical and Industrial Engineering
Michael Cailas	Environmental and Occupational Health Sciences
Nurtan Esmen	Environmental and Occupational Health Sciences
Steven Forman	Earth and Environmental Science
Luke Hanley	Chemistry
Michael Iversen	Architecture
Martin Jaffe	Urban Planning and Policy
An Li	Environmental and Occupational Health Sciences
Jane Lin	Urban Transportation Center
Andreas Linninger	Chemical Engineering
Ali Mansoori	Chemical Engineering
Susan McNeil	Urban Transportation Center
Karthryn Nagy	Earth and Environmental Science
Krishna Reddy	Civil and Materials Engineering
Karl Rockne	Civil and Materials Engineering
Peter Scheff	Environmental and Occupational Health Sciences
Neil Sturchio	Earth and Environmental Science
Chistos Takoudis	Chemical Engineering



