INSTITUTE FOR ENVIRONMENTAL SOLUTIONS

2005 ANNUAL REPORT

761 NEWPORT STREET
DENVER, CO 80220

WWW.I4ES.ORG

The Institute for Environmental Solutions is an independent non-profit organization delivering proactive technically sound solutions to complex environmental and natural resource problems—without unwanted side effects.

A Letter from the President

January 2006

Hello Friends!

2005 was a very successful year for IES. The organization has grown by leaps and bounds in the past year with the addition of four new graduate student interns, increased involvement of Board members and the formation of new committees: the IES Development Team, the Tree Project Steering Committee, and the Board Resources Committee.

In keeping with our mission, we believe the only way to establish effective, technically sound scientific strategies to solving environmental problems is through the IES stakeholder-based approach. IES works with partners, stakeholders, and clients, to work toward positive outcomes by:

- Asking difficult questions
- Tackling complex, seemingly intractable problems
- Challenging the status quo
- Testing and demonstrating technically sound potential solutions in the real world
- Objectively measuring effectiveness
- Disseminating results, and providing educational outreach and information.

The IES approach emphasizes an element critical to a successful remedy—communication and integration across technical, organizational, and social barriers.

This approach is being applied as we launch into the first phase of both of our innovative projects: The Tree Project: Integrated Urban Environmental Improvement Through Tree Selection and Planting, and Trace Pharmaceutical and Personal Care Contaminants in Wastewater. Convening multiple interests to solve environmental problems is not always the simplest method of tackling environmental improvement. However, experience demonstrates that it is the only way to ensure that scientific solutions and resulting policy is effective and "owned" by everyone affected.

The 2005 Annual Report marks a new chapter in exciting times for IES. With the support of our dedicated board members, volunteers, interns, and supporters, 2006 is sure to bring continued success in our projects and important scientific results.

Sincerely,

Carol E. Lyons
President

2005 IES Board of Directors

W. Gale Biggs, Ph.D
Treasurer
Air Quality Meteorologist
W. Gale Biggs Associates
Boulder, Colorado

Douglas L. Jeavons
Vice President
Managing Partner
BBC Research and Consulting
Denver, Colorado

Bob Brady
Chair
Colorado Air Quality Control Commission
Lakewood, Colorado

David W. Knapp
City Manager
City of Cupertino
Cupertino, California

Adam T. DeVoe
Associate Attorney
Brownstein | Hyatt | Farber | Schreck, P.C.
Denver, Colorado

Carol E. Lyons
President, IES
President, Bridges Unlimited LLC
Denver, Colorado

IIES Board of Directors Meeting, Denver Water

Ken Fucik
Aquatic and Terrestrial Scientist
Principal, The Seacrest Group
Louisville, Colorado

Robert L. Pearson, Ph.D.
Environmental Engineer
Vice President, CH2M Hill
Englewood, Colorado

Elizabeth V. Gardener
Manager of Water Conservation
Denver Water
Denver, Colorado

John S. Sanderson
Biohydrologist
Fort Collins, Colorado

2005 IES Staff, Associates and Volunteers

Staff

Lynn David Bird
Pro Bono Attorney
Caplan and Earnest LLC
Boulder, Colorado

Kristen Gray
Senior Project Intern
University of Denver – University College

Mandy Gruchow
Development Intern
University of Denver Graduate School of International Studies

Jack Hoopes
Development Coordinator
Cairn Consulting
Golden, Colorado

Erin McVeigh
Project Intern
University of Denver College of Law

C.A. (Tony) Schock
Accountant (Pro bono)
Schock's Accounting & Tax Services
Fort Collins, Colorado

Erin Rogers
Website Manager
Centennial, Colorado

Desirée Thorp
Project Intern
University of Denver Graduate School of International Studies

Patrick Walsh
Project Intern
University of Denver – University College

Rosemary L. Wormington
Administrative Director
Westminster, Colorado

Institute Associates

Claudia Browne
Rocky Mountain Bioregion Leader
Biohabitats
Golden, Colorado

Sheila Hayter
Building/Renewable Energy Engineer
National Renewable Energy Lab
Golden, Colorado

Michelle Kales
Associate Attorney
Brownstein | Hyatt | Farber | Schreck, P.C.
Denver, Colorado

Paul W. Lander, Ph.D.
Water Conservation Specialist
City of Boulder
Boulder, Colorado

Karen J. Lewis
Environmental Business Manager
Chicago, Illinois

Ken Lykens
Principal Engineer
MWH
Broomfield, Colorado

Yves Parent, Ph.D.
Chemical Engineer
Chemical Engineering Consulting Services
Golden, Colorado

Jake Smith
Chemical/Environmental Engineer
Solid Waste Division, Hennepin County Environmental Services
Minneapolis, Minnesota

William M. Vaughan, Ph.D.
Air Pollution Physicist
President, Nauset Environmental Services, Inc.
East Orleans, Massachusetts

James M. Williams
Socioeconomic & Public Policy Consultant
Denver, Colorado

IES Tree Project Steering Committee Members, Xcel Energy

Institute for Environmental Solutions Introduction

The Institute for Environmental Solutions (IES) is a Denver-based, non-profit 501(c)(3) organization dedicated to addressing complex environmental challenges. We advance objective, integrated solutions to our region's most pressing environmental concerns, such as air and water quality, and pollution control.

IES uses sound, independent science to:

- Find potential solutions
- Develop objective evaluation methods
- Implement Strategies
- Measure and demonstrate cost-effectiveness

Over the past year, IES has grown to three (part time) paid staff members, fifteen active volunteers, ten Board members, and ten Institute Associates working hard to accomplish our mission to deliver proactive, technically sound solutions to environmental and natural resource problems without unwanted side effects. 2005 has been a year of planning and research for our two initial projects, The Tree Project: Integrated Urban Environmental Improvement through Tree Selection and Management, and Trace Contaminants in Wastewater.

The IES Board of Directors developed a new Case Statement to focus efforts to begin to develop sustainable sources of funding.

Our Thanks

To the sponsors who helped make 2005 successful

City of Boulder Department of Water Conservation
Xcel Energy Foundation
Considine Family Foundation
Brownstein | Hyatt | Farber | Schreck, P.C.
SmartWool Advocacy Fund

Our Thanks

To the committee members who contributed to a successful Tree Project Phase 1

Tree Project Steering Committee

Greg Litus
Ph.D. candidate, Horticulture and Landscape Architecture
Colorado State University

Mark Fox
Director, Plant Projects
Xcel Energy

Liz Gardener

Kristen Gray

Sheila Hayter

Carol E. Lyons

Desirée Thorp

Keith Wood
East Area Community Forester
Colorado State Forest Service

Billy Gregg
Landscape Architect

The Tree Project: Integrated Urban Environmental Improvement Through Tree Selection and Management

Formation of a Tree Project Steering Committee and Stakeholder List

The Tree Project Steering Committee was established to develop the specific project goals of The Tree Project, and to provide technical support and guidance. Members were selected based on their diverse industry backgrounds and experience in water, energy, air quality, and forestry as well as enthusiasm.

IES worked to identify all of the local and national stakeholders that would be affected by the project, and would ideally be involved in the project design and implementation. Stakeholders range from urban forestry to utility companies, to the green industry (including nursery owners and landscape architects), to developers and homeowners.

Background Research

IES project interns completed a literature review of existing scientific studies involving trees and their effect on air quality, energy and water conservation, carbon sequestration, and stormwater control. A majority of the existing information on urban forest benefits can be credited to the U.S. Forest Service Pacific Northwest Research Station. Studies were divided by their applicability to the Colorado Front Range and The Tree Project, and by environmental aspect. Costs and benefits associated with trees were also researched and documented. Through this research, we were able to develop the goals of the project by identifying gaps in research and priorities for the Front Range environment. Existing gaps are mainly in scientific information regarding trees and water quality and conservation, and in integration. While there are quality studies that focus on trees and energy conservation or stormwater control, there are few, if any, projects that have been able to use trees in an integrated environmental improvement effort. The Tree Project will maintain integration as a key goal.

In addition to a literature review, IES staff members also met with key researchers in the urban forestry field, such as Dr. Greg McPherson from the University of California at Davis, who has been a driving force behind much of the progress made in quantifying the effects of trees on the environment. McPherson was consulted for advice on the project's design and goals, and will serve as a peer reviewer of project documents as they are released.

Trace Contaminants in Wastewater

Background Research

IES project interns were hard at work during 2005 tackling the challenging task of reviewing the literature on trace contaminants in wastewater from pharmaceutical and personal care products. Significant studies include the nationwide USGS study that found evidence of endocrine disrupters in U.S. streams. However, there is still a lot of uncertainty in the field regarding exactly where the contaminants come from, which contaminants are the greatest threat, and how serious is the effect on human health. We have compiled a large bibliography of information and have begun to identify gaps in research. IES has also identified project stakeholders and has begun developing several project concepts that will address trace contaminants with an integrated approach; solutions will use sound science, prevention, and education to advance the research in this area.

The IES Graduate Intern Program

Thanks to **Adam DeVoe**, the IES **Student Intern Program** is off to a tremendous start. IES welcomed four new University of Denver graduate student interns:

Mandy Gruchow, working on a Master's Degree in International Business Administration at the DU Graduate School of International Studies is our Development Intern, and contributed tremendous work preparing new grant applications and improving our web site. She has a B.S. in Business Administration from the University of Wisconsin.
Kristen Gray, in the Master of Environmental Policy and Management (EPM) program at University College, is working on technical background analysis for the IES Tree Project. Kristen has a B.S. in Marketing from Illinois State University.
Patrick Walsh, working on a dual Master's Degree – Professional Studies (Alternative Dispute Resolution) and EPM, is tackling background research for IES' Trace Contaminants in Wastewater project. He has a Bachelor of Music in Education from the University of Houston.
Erin McVeigh, preparing a Masters in Environmental Law and Natural Resources at the DU College of Law, is working on policy and project analysis for the Tree Project. Erin has a Bachelor's Degree in Economics from the University of Colorado (Boulder).

All our interns are volunteers. Some will receive academic credit for their internships, and some will use their IES experience in their coursework. IES is fortunate to have a terrific cast of interns, actively contributing to our mission.

Funding

IES Development Team

This year IES made great progress in establishing a strategy to identify funding sources for the organization. IES project interns attended development workshops, and compiled a database of grant opportunities to pursue. We began the IES Grants Guidebook, which includes instructions and techniques on how to evaluate opportunities, establish contacts and communicate the IES message.

Under the leadership of Web Master, Erin Rogers, IES launched a comprehensive web site, www.InstituteforEnvironmentalSolutions.org. We issued our first two press releases.

IES established its new logo, designed by Patricia Zapata. We also designed and published our Institute brochure.

Institute for Environmental Solutions
2005 Operating Financial Report
January through December 2005

	IES Operating	Tree Project	TOTAL
Ordinary Income/Expense			
Income			
Fund Transfer Income	1,372.61	15,001.64	16,374.25
Interest	0.00	57.76	57.76
Unrestricted Board Contribution	6,400.00	0.00	6,400.00
Unrestricted Contribution	5,100.00	0.00	5,100.00
Total Income	12,872.61	15,059.40	27,932.01
Expense			
Accounting	515.00	0.00	515.00
Administrative expense	3,458.11	0.00	3,458.11
Development	1,520.00	0.00	1,520.00
Dues	95.00	0.00	95.00
Intern	2,828.84	566.36	3,395.20
Internet and website	2,010.00	0.00	2,010.00
Postage, shipping	15.86	0.00	15.86
Printing and reproduction	1,216.26	0.00	1,216.26
Registration fee	45.00	0.00	45.00
Software	158.99	0.00	158.99
Taxes	1.00	0.00	1.00
Training	75.00	0.00	75.00
Total Expense	11,939.06	566.36	12,505.42
Net Ordinary Income	933.55	14,493.04	15,426.59
Net Income	**933.55**	**14,493.04**	**15,426.59**

The Institute for Environmental Solutions Welcomes Your Support!

IES welcomes participation by all individuals and organizations that support our mission and goals.

PROFESSIONALS interested in environmental solutions may join IES as Institute Associates. Please contact us for more information.

STUDENTS at graduate school and advanced levels are invited to apply for Intern positions, listed at the IES website.

Contributions and grants to support the IES mission are most welcome. Financial contributions are tax-deductible. Please visit our website or call our office.

Please call, fax or email us with your questions, comments, and requests for more information. We welcome your inquiries and input.

Keep an eye on IES projects, events, and news!

For press releases, events, and publications, go to the IES website, ***www.I4ES.org****, and click on IES News.*

Institute for Environmental Solutions

• 761 Newport St., Denver, Colorado 80220-5554 • (t) 303-388-5211 • (f) 303-388-3209 • Solutions@I4ES.org