Institute for Environmental Solutions

Annual Report

The Institute for Environmental Solutions delivers scientific solutions to improve our health and environment

www.i4es.org

Our Work

IES is a Denver-based independent nonprofit organization founded in 2004 that engages a broad spectrum of stakeholders and develops sound, cost-effective solutions to environmental challenges.

IES solves environmental problems and protects Colorado's water and air with pollution prevention and reduction programs.

IES undertakes projects focused on improving the environment and reducing water and air pollution by partnering with individuals, businesses, and communities in Colorado.

- We reduce chemical footprints for improved water quality and health.
- We apply strategic tree planting for erosion control, air quality improvement, and carbon sequestration.
- We capitalize on community volunteerism with kids and adults to improve their communities with a focus on student leadership development and environmental stewardship training.

The Importance of IES

An urgent need exists to find, test, and implement sound scientific, cost-effective solutions to complex environmental problems that are not being adequately addressed.

Too often, well-intended environmental improvement strategies fail or result in unintended negative consequences because the problem and proposed solutions were not fully and objectively measured and analyzed.

From the *Executive Director*

IES had an eventful 2019 that consisted of important advancements in environmental projects designed to improve the health of local residents and the environment. It was a pleasure for IES to be a part of so much effective collaboration among local stakeholders, community members, and our two project teams.

The Tree Project continued to provide ecological science workshops to students in Sheridan and Wheat Ridge while improving local trails. The Sheridan Quincy Community Trail Improvement Project was the fourth year that IES and Fort Logan Northgate School made sustainable environmental improvements along the Quincy Trail. The Wheat Ridge Greenbelt Improvement Project was the seventh successful year of planting in Wheat Ridge in collaboration with the Wheat Ridge Parks and Recreation Department and Kullerstrand Elementary School. The Chemical Footprint Project continued its work to prevent water pollution and protect human and environmental health by reducing chemical footprints with a focus on contaminants of emerging concern in common household and personal care products.

Successfully engaging with dedicated students, stakeholders, and community members to advance these projects was extremely rewarding. IES looks forward to strengthening these connections to continue delivering scientific solutions to improve our health and environment in 2020. As this report is written and published, we are working to cope with an unimaginable COVID-19 pandemic. The health and safety of our team members, families, and partners is top priority. Our dedicated staff members are working to advance our critical mission and goals in the face of this global challenge. Your participation, support, and help are welcome and needed.

Carol E. Lyons, Executive Director

Dedicated IES volunteers, Graduate Interns, and Associates make environmental problem solving possible.

Laura Prickett, Associate

"I feel that I've become a valued member of a really great organization since I joined IES last summer. As a project coordinator for the Tree Project, it's really great to be a part of planning out local environmental projects and seeing the enthusiasm from the community in implementing them."

Gabe Catenacci, Graduate Intern

"I am proud of all that the IES Tree Project has done to develop and foster environmental stewardship in Wheat Ridge and Sheridan. With the support of the local communities, we will continue to improve the environment for future generations."

Austin Duncan, Graduate Intern

"It was a great year for IES. I'm proud of all the hard work our team has done to reduce chemical footprints and improve the environment of our communities."

Reed Gerberick, Graduate Intern

"I was very excited to join the IES Chemical Footprint Project in 2019. We did important work to develop workshops and further our community-based strategies to reduce chemical footprints. I can't wait to continue this work in the coming year."

Caitlin Jacobshagen, Associate

"I've enjoyed my time at IES and I've learned a lot. It's great working with a small group of people who are all dedicated to improving human and environmental health."

Get involved. Volunteers support our vision and mission!

You can use your expertise and help IES. We welcome volunteers with a variety of backgrounds to join our teams or committees, and support IES. IES projects and leadership boards provide opportunities to do rewarding and fulfilling community improvement.

IES volunteer opportunities include:

- Chemical Footprint Project Team or Tree Project Team
- Project Steering Committee (Chemical Footprint Project and Tree Project)
- Board of Directors
- Tree Stewards

Contact us for more information at Solutions@i4es.org

The Tree Project

THE TREE PROJECT
ENERGY • WATER • AIR • CARBON

The IES Tree Project works to improve Colorado cities through multi-disciplinary partnerships and urban forestry programs.

The goals of the Tree Project are to:

- Research urban environmental problems and develop sustainable solutions.
- Enhance community health and bolster the economy through tree planting and urban forestry.
- Improve and optimize the survival of IES trees and plants through community-supported maintenance efforts.
- Partner with municipalities and actively foster community engagement projects to solve urban environmental challenges.
- Establish IES as the resource for science-based tree planting capability and related environmental education on Colorado's Front Range.
- Develop replicable educational programs to promote environmental stewardship, especially for students in underserved communities.

FLN students practicing proper planting techniques.

FLN students painted touch tables during a workday.

Sheridan Quincy Community Trail Improvement Project

The 2019 Sheridan Quincy Community Trail Improvement Project (CTIP) was IES's fourth year of community improvement in Sheridan, Colorado. The Tree Project continued its partnership with the City of Sheridan, Sheridan School District No. 2, Fort Logan Northgate School (FLN), and South Suburban Parks and Recreation District to provide sustainable environmental improvements along the Quincy Trail. The 2019 Sheridan CTIP focused on stormwater and erosion mitigation. We held field workdays and classroom workshops, and planted native plants and grasses such as blanket flower, bee balm, blue grama, golden currant, prairie dropseed, and Rocky Mountain penstemon. During the summer, IES team members, Tree Stewards, and the Mile High Youth Corps provided critical site maintenance. In the fall, IES held two workshops with FLN Leadership students to plan and develop the necessary skills for the two workdays. FLN students built and installed a bench, two touch tables, and fence decorations, and provided maintenance during the school year. IES planted a total of 124 native plants in Sheridan this year!

Kullerstrand's TRAILS students participated in IES planting days and workshops.

Wheat Ridge Greenbelt Improvement Project

The 2019 Wheat Ridge Greenbelt Improvement Project was IES's seventh year of planting in Wheat Ridge, Colorado. The goals of the project were to improve the ecological health and quality of riparian and grassland habitats along Clear Creek in the Greenbelt, develop environmental stewardship among local children, and provide routine maintenance for three years after planting. In the spring, IES implemented ecological workshops with students from Kullerstrand's Teaching Responsibility and Independence with Learning Supports (TRAILS) program. TRAILS students and their school partners applied the skills from the workshops during two planting days where they planted 126 native trees, shrubs, and perennial forbs. Wheat Ridge Summer Sun Campers participated in IES's Tree Ambassadors program where they worked with IES Tree Stewards to provide maintenance during the summer.

The Chemical Footprint Project

REDUCE YOUR CHEMICAL FOOTPRINT

The IES Chemical Footprint Project works to prevent water pollution and protect human and environmental health by reducing household and commercial chemical footprints.

A person's chemical footprint is their total contribution to chemical pollution in the environment, comparable to the carbon footprint for climate impact.

The goals of the Chemical Footprint Project are to:

- Foster sustainable behaviors in communities that teach people how to reduce chemical footprints.
- Foster commitments to reduce use of personal care, food, and household products containing contaminants of emerging concern (CECs).
- Identify safe and effective alternatives to products containing CECs.

Household and personal care products that we use daily contain harmful contaminants that accumulate in water and the environment. IES focuses on CECs that are largely unregulated and are found in a variety of consumer products and commercial applications. They are harmful to human health and the environment. Examples include alkylphenol surfactants, BHA, BPA, DEET, parabens, oxybenzone, and synthetic fragrances.

All Water Leads to the Sea workshop

IES was invited to conduct a workshop at the Ocean First Dive Shop in Boulder on May 9 with dive enthusiasts and local community members. The "All Water Leads to the Sea" workshop demonstrated how certain common household and personal care products leave behind a chemical footprint that is found throughout the water cycle, from mountain snow to the water of the South Platte River on its downstream journey to the sea. Attendees learned that contaminants are not removed by wastewater or drinking water treatment. These contaminants enter the water cycle, harming the environment and our health. Participants created and took home do-it-yourself products free of contaminants and received lessons in label reading to identify potential contaminants. The workshop demonstrated the use of free-to-download product-scanning apps like EWG Healthy Living and Think Dirty® that show contaminants that exist in your personal care and household products.

Workshop attendees at Ocean First made their own glass cleaner, all-purpose cleaner, and hand sanitizer.

Genesis Presbyterian Church Water4Life Symposium in Littleton

IES took part in the Water4Life Symposium at the Genesis Presbyterian Church in Littleton on April 7. The event was a water-themed open house featuring art, music, and a panel of experts discussing water issues facing Coloradoans. IES was invited to promote the efforts made by the Chemical Footprint Project to prevent water pollution. Attendees visited IES's booth to make do-it-yourself products using non-toxic ingredients and spoke with team members about how to reduce chemical footprints.

South Platte River Urban Waters Partnership

IES presented to members of the South Platte River Urban Waters Partnership (SPRUWP) on November 19 about reducing chemical footprints and preventing water pollution to improve human and environmental health. SPRUWP consists of regulatory professionals, environmental advocacy groups, and community stakeholders that strive to protect the South Platte River. IES made valuable connections and received helpful feedback from dedicated professionals working to protect one of Denver's primary sources of drinking water.

IES presented to members on current work being performed to educate communities about a growing pollution problem of contaminants of emerging concern and how to prevent future pollution.

Guidebook chapters cover the following CECs: Alkylphenol surfactants, BPA, BHA, caffeine, DEET, PBDEs, oxybenzone, parabens, PFAs, phthalates, synthetic fragrances, triclosan

Contaminants of Emerging Concern Guidebook

Developed by IES Associates and Graduate Interns, the Guidebook provides a comprehensive scientific overview of CECs found in common household and personal care products. Topics include an overview of the science of contaminants, where they are found, their regulatory status, known health effects, and how to avoid or reduce exposure. You can view the Guidebook online at www.i4es.org. If you would like to purchase a copy, please email us at Solutions@i4es.org.

Project Partners

Working Together to Improve Communities

Throughout the year, IES project team members, committee members, stakeholders, volunteers, and Board of Director members worked together to improve our local communities and advance the work of IES.

DaVita Earth Day

IES partnered with DaVita Inc. on April 27 to celebrate Earth Day and fix up the Sheridan Quincy Trail. DaVita volunteers were enthusiastic about having both the Tree Project Team and the Chemical Footprint Project Team organize this event. Volunteers made great progress along the trail while learning about reducing their chemical footprint at home.

DaVita volunteer mulching the Sheridan Quincy Trail.

Xcel Energy Day of Service

IES Board members, local community volunteers, and both project teams joined Xcel Energy employees and family members on September 7 to improve the Sheridan Quincy Trail by planting a rain garden, restoring plants along the trail, and removing noxious weeds. The Colorado Bar Association Environmental Law Section and Denver Water partnered with Xcel to provide volunteers.

IES team members and Xcel Energy volunteers install a rain garden for improved erosion control.

Sustainable Denver Summit

The IES Board of Directors hosted a table at the 2019 Sustainable Denver Summit to represent IES to over 1,000 leaders from across Denver's business, nonprofit and civic communities. The Summit is organized by the City and County of Denver to educate, inspire and drive action in our community to advance environmental sustainability.

IES Board of Directors

The *IES Board of Directors* is comprised of accomplished professionals from diverse backgrounds who provide unique insights, guidance, and leadership to IES. All Board members share an active commitment to the mission and goals of IES, and are dedicated to improving the environment. If you are interested in joining the *IES Board of Directors*, please send an email to Solutions@i4es.org.

Briana Gunn, IES Board of Directors Vice President (2020 President)

"The work that IES is doing is important now more than ever in a physical world where things are constantly changing and the environmental impacts that people have can still be managed to support a long-term healthy sustainable world for all of us."

Sean Mangus, IES Board of Directors and Tree Project Steering Committee

"IES provides tangible methods for people to make a difference, from their personal footprints to the health of their broader communities. I'm proud to be part of an organization that builds coalitions and uses science-based solutions to effect meaningful change."

Contributors / Financial Report

IES Board of Directors

Kristen Bertuglia, Director, Environmental Sustainability Department, Town of Vail
Floyd Boyard, Manager, Analytical Department, Marathon Oil Co. (retired)
Briana Gunn, *Vice President*, Director of Environmental Affairs, Newmont Mining Corporation
Kel Rayens, Associate, BBC Research and Consulting
Allison Robinette, *Secretary*, Assistant Attorney General, Colorado Office of Attorney General
Luke Swaney, *Treasurer*, Director, Founders Lab
Kathleen Thaxton, Senior Sales Professional
Michael Verdone, Ph.D., *President*, Senior Associate, BBC Research and Consulting

IES Staff Members

Lynn David Bird, Attorney, Caplan and Earnest LLC (pro bono)
Leah Bluntschli, Information Designer, Middle Child
Alana Burrow, Administrative Director
Danielle Granquist, Graphic and Website Designer, Golden Marketing
Jesse Johnson, Videographer, IOTK Media
Sabrina Kleinman, Tree Project Manager
Carol E. Lyons, Executive Director
Carrie Martin-Haley, Sheridan Tree Project Manager
Helen McGrath, Chemical Footprint Project Associate
Kelly O'Toole, Tree Steward Coordinator
Laura Prickett, Tree Project Associate
Cathi Schramm, Tree Project Associate
Julia Smith, Graphic Designer, Propel Marketing and Design, Inc.
Michael Smith, Chemical Footprint Project Manager

IES Graduate Interns

Brittney Anderson
Ashley Brubaker
Gabriel Catenacci
Jennifer Cowan
Nicole Dellana
Austin Duncan
Blakesley Egan
Harry Fairbanks
Ricardo Flores
Haley Flynn
Reed Gerberick
Haylee Grace
Samantha Grant
Grace Helgager
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Caitlin Jacobshagen
Kaitlin Lesco
Liana McIsaac
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IES Institute Associates

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Jake Smith (1949-2011)
William M. Vaughan, Ph.D.
Janice R. Ward
Andrea Watson
James M. Williams
Keith Wood

The Tree Project Steering Committee

Desirée Cunningham, U.S. General Accountability Office
Donna Davis, Colorado State Forest Service
Danielle DiMauro, U.S. Department of the Interior
John Kelly, Colorado State Auditor's Office
Lloyd Levy, Lloyd Levy Consulting Sean Mangus, DaVita Inc.
Milly Nadler, Colorado Academy retired
Kelly O'Toole, BLM Colorado
Judith Ward, Critical Habitats, Inc.

Chemical Footprint Project Steering Committee

Nancy Billica, University of Colorado Boulder
Jaclyn Bowen, Clean Label Project
Kyra Brisson, Metro Wastewater
Caroline Byus, Pinyon Environmental
Greg Fabisiak, Colorado Department of Public Health and Environment
Randy Putnam CWP MBA
Kim Schultz, The Endocrine Disruption Exchange
Susan Sherrod, Ecologist
Andrea Stucky, Colorado Department of Public Health and Environment

2019 Financial Report

		Administration and Fundraising	Programs	TOTAL
INCOME	Grants	$21,403	$65,074	$86,477
	Interest	71	0	71
	Unrestricted Board Contribution	528	0	528
	Unrestricted Contribution	12,903	200	13,103
	Fund transfer from 2018		4,674	15,179
	Total Income	**$34,905**	**$70,088**	**$104,993**
EXPENSE — DIRECT EXPENSE	Dues, Training, Registration fees	143	620	763
	Insurance	229	458	687
	Internet and website	27	13	40
	Meeting / conference supplies	335	2,963	3,298
	Mileage	80	1,975	2,055
	Office supplies	1,131	1,505	2,636
	Parking Transportation	84	72	156
	Postage, shipping	247	360	607
	Printing and reproduction	622	2,659	3,281
	Project and Technical Supplies	0	5,217	5,217
	Telephone services	45	140	185
	Total Direct Expense	**$2,693**	**$15,982**	**$18,925**
LABOR	Administrative expense	1,595	1,980	3,575
	Executive Director	0	6,700	6,700
	Graduate student interns	0	18,506	18,506
	Graphic Design	1418	4,597	6,015
	Research Associates	0	1,741	1,741
	Videographer	0	2,400	2,400
	Total Labor	**$3,013**	**$35,924**	**$38,937**
	Total Expense	**$5,956**	**$51,906**	**$57,862**
	Fund transfer to 2020			**$47,007**

In 2019 our volunteers, board members, interns, committee members and associates contributed over $135,724 in in-kind contributions. IES's primary source of monetary support comes from grants that we apply for from corporate and private foundations, and from local and state government agencies. Individual donors provide necessary operating funds. Over 87% of contributions and funding directly support projects, which includes project materials, trees, shrubs, grasses, outreach materials, technical equipment, educational and workshop materials, and modest stipends to project staff members. The 2019 IES Financial Report shows significant cash balance of funds that were transferred to 2020. The majority of this money is grant funding for the 2019 IES Sheridan Community Trail Improvement Project, which was carried forward to 2020 due to unforeseen and unavoidable project delays in the 4th quarter of 2019. The delayed project tasks will be completed in 2020, and the funds allocated to their original purpose.

Donors and Supporters

Donated contributions are 100% tax deductible and directly support programs that improve the environment and human health.

Thank you 2019 donors!
Donations help grow a community of environmental stewards. We could not be successful without you.

River Warrior ($1,000 to $2,499)
Elizabeth Gardener, Denver
Yves Parent, Golden

Alpine Advocates ($500 – $999)
Suzanne & Gale Biggs, Boulder
Michael Franko, Denver
The Mark and Nina Kuhl Family Fund
Mark & Diana Stucky, Castle Rock
La Storia LLC, Richard Walker, Erie

Tree Hugger ($250 – $499)
Floyd and Jackie Boyard, Denver
Lois and John Brooks, Wheat Ridge
Anne Farrell, Santa Fe
Briana Gunn, Denver
Hertel Living Trust, Wheat Ridge
Karen and Bob Lewis, Chicago
Susan Sherrod and Andrew Lillie, Golden
Billie Martin, Denver

IES Partner ($100 – $249)
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William Battaglin, Golden
Kristen Gray Bertuglia, Vail
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Susan Cuthbert-Peck, Littleton
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Sean Mangus and Marie Mutryn, Broomfield
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The Waltermire Family Charitable Fund, Castle Rock
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Julia Gray, Centennial
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Milly Nadler, Wheat Ridge
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Janice Ward, Windsor
Cindy Webreck, Butler, PA
Rosemary Wormington, Westminster
Yellow 7 Team, Mountain Ridge Middle School, Highlands Ranch

Grants and Sponsors

IES thanks our generous sponsors and grant providers!

AmazonSmile Foundation
Colorado Combined Campaign
The Colorado Trust
Community First Foundation
DaVita Inc.
H&R Block
HunterDouglas Window Fashions
King Soopers
The Ohana East Foundation
Patagonia Denver

In support of the Tree Project:
The Colorado Health Foundation
Colorado Tree Coalition
City of Wheat Ridge Outside Agency Contribution Program
National Environmental Education Found
Outdoor Happiness Project / McKee Foods
River Network
Xcel Energy Foundation
Xcel Energy Day of Service

In support of the Chemical Footprint Project:
Colorado Trust
Ocean First Dive Shop, Boulder

IES In-Kind Donors and Partners: IES partners and stakeholders make our programs successful!

City of Sheridan, CO
Fort Logan Northgate School, Sheridan
Kullerstrand Elementary School, Wheat Ridge
Lynn David Bird, Caplan & Earnest, LLC, Boulder
Mile High Youth Corps
Sheridan School District No. 2
South Suburban Parks and Recreation District
Wheat Ridge Parks and Recreation Department
Wheat Ridge Recreation Center Sun Camp

Thanks to the Daniels Fund (Patrick Kennedy, Chen-Pin Hu, and colleagues) for providing wonderful meeting space for all IES Board and Committee meetings!

Connect with IES on social media!

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twitter.com/Inst4EnvSoln

The 2019 IES Annual Report was edited by Mike Smith, IES Project Manager, and designed by Julia Smith, Propel Marketing & Design Inc.

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