Institute for Environmental Solutions

SCIENTIFIC SOLUTIONS FOR A BETTER ENVIRONMENT

stakeholder connection

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Sixth Graders will Become Blue Crew Water Stewards at Mitchell Elementary in Golden

The Contaminants of Emerging Concern (CEC) Project Team completed a successful workshop demonstration at Mitchell Elementary School in Golden on November 30, 2012. The IES team worked with the entire 6th grade class to educate them about the dangers of CECs and taught them how to make CEC-free hand sanitizer.

The Mitchell students were engaged, excited, and participated energetically during the workshop. The 6th graders showed strong comprehension of the subject. In their student evaluations many students noted that their "favorite part of the workshop was making hand sanitizer that didn't pollute the water."

IES is eager to return to Mitchell Elementary in April to complete three additional Blue Crew Water Steward workshops. IES is designing a hands-on three workshop series where the same 6th grade students will get detailed lessons on specific CECs. Students will participate in scientific experiments, interactive discussions, and product creation that will further their knowledge about CECs and how to avoid them.

Students will count the number of containers with BPA found in their homes and will set their own goals for reducing their chemical footprint. They will be encouraged to apply what they learn in their homes and will be empowered by the new skills they obtain through the workshops. This workshop series turns CEC education into action and gives each student the tools to become an informed water steward.

The CEC Project Team hopes to use this pilot workshop series to design workshops suitable for more Jefferson County schools and schools throughout Colorado to reduce and prevent CEC water pollution and improve health by reducing contaminant exposure. More information: Patrick DePriest, depriestp@i4es.org.

IES Awarded Colorado Tree Coalition Grant

IES was awarded a $2,000 grant from the Colorado Tree Coalition (CTC) for the Wheat Ridge Revive the Greenbelt! Tree Stewards project. The Tree Stewards project will develop a sustainable community volunteer program to engage and connect community members in an important environmental cause.

COLORADO TREE COALITION

The CTC has awarded 454 grants totaling just over $696,000 since 1991, thanks to support from the USDA Forest Service, the Colorado State Forest Service, due-paying members, and financial partners. These grants have been matched with over $7.6 million in community money and volunteer time. Over 68,600 trees have been planted throughout the state as a result.

IES's Wheat Ridge Revive the Greenbelt! Tree Stewards project will help to restore the tree canopy and improve riparian habitat along the banks of Clear Creek, a major tributary to the South Platte River. The IES Tree Project Team will use strategic tree selection, planting and maintenance to restore and revitalize the Greenbelt. The objective is to increase the survival rate of trees planted in the Wheat Ridge Greenbelt.

To increase survival on newly planted trees IES will enlist groups of volunteer tree stewards to maintain almost 200 trees and shrubs which IES and the City of Wheat Ridge will plant in the Wheat Ridge Greenbelt on April 27. IES is looking for groups or individuals interested in helping with this exciting volunteer opportunity to preserve the Wheat Ridge Greenbelt.

Advanced registration for the planting day and to become a tree steward is required. More information: Michael Haney, mhaney@i4es.org.

California Proposes Ban on BPA

According to the February 4, 2013 Chemical & Engineering News, California is proposing to list bisphenol-A (BPA) under state law Proposition 65. Proposition 65 or 'The Safe Drinking Water and Toxic Enforcement Act of 1986' "requires the State to publish a list of chemicals known to cause cancer or birth defects or other reproductive harm." If this proposal passes and BPA is listed under Prop 65, products containing BPA would have to display a warning label. This would however exempt products that provide exposures of less than 290 micrograms per day, which is the

maximum allowable dose set by the state.

BPA is an organic chemical compound used to make plastics in products like bottles, sports equipment, and DVDs, clear and tough; in coatings on the inside of food and beverage cans; and in making thermal paper for sales receipts. The U.S. Food and Drug Administration (FDA) warns of possible hazards of BPA to fetuses, infants, and young children.

In 2010, Canada became the first country to declare BPA a toxic substance. The European Union, Canada, and the United States have banned BPA use in baby bottles. (See the November 2012 issue of Stakeholder Connection for more information.)

The IES CEC project team has been researching the dangers of the common chemical, bisphenol-A (BPA), and developing lesson plans for the Blue Crew Water Stewards Program to teach sixth graders about BPA and how to reduce the amount of BPA they are exposed to. There are many ways to avoid and reduce one's BPA exposure. First, look for reusable water bottles and other bottles that are specifically labeled "BPA free." Buy and eat fresh or frozen food instead of canned food unless it is specifically labeled "BPA free." Avoid microwaveable meals that come in plastic containers. Choose beverages that come in glass containers over plastic or aluminum. Do not microwave food in plastic containers. Store leftovers in glass or stainless steel rather than plastic. More information, Bridgette Haggerty, Bridgette@i4es.org.

Willow Sticks to Begin Wheat Ridge Greenbelt Restoration

The initial phase of the IES Revive the Greenbelt! project has been implemented as willow stakes were along Clear Creek's banks. Willow staking is a stream bank bioengineering process of using live cuttings from riparian willows to stabilize banks.

IES team members sponsored by Denver Urban Drainage and Flood Control District gathered the willows from native stock in the Wheat Ridge Greenbelt. The willow stakes were driven into areas of the stream bank where the overall stream will benefit from stabilization.

Some of the benefits to choosing a bioengineering approach to stream bank restoration include: low cost; increased strength over time; and allowance for natural processes to occur. The willows will also increase shading and habitat for local plants and animals. Denver Urban Drainage and Flood Control District provided the contracting and labor costs of the willow-staking portion for the project. More information: Trevor Hammrich MLA, LEED GA, Trevor@i4es.org.

The Relationship between Tree Canopy and Crime Rates

In the June 2012 Landscape and Urban Planning journal, Austin Troy, Jarlath O'Neill-Dunne, and J. Morgan Drove conclude more trees equals less crime in Baltimore, Maryland. By looking at the relationship between urban tree cover and rates of robbery, burglary, theft and shooting, the researchers show a 10% increase in tree canopy is associated with a 12% decrease in crime. The drop in crime was three times bigger on public land even after other variables such as income, population density, and race were eliminated.

The study suggests planting trees on public lands such as parks, open space, and at government buildings and facilities is effective in reducing crime. One reason proposed by the researchers may be well-designed green space decreases crime by attracting people to spend time outdoors, and the presence of more people in public places means it is harder for criminals to go unnoticed.

Trees create many benefits for society. Based on scientific research by IES and many other groups, trees remove pollutants from the air and water, provide habitat for wildlife, and cool the Earth's surface by providing shade. They improve worker productivity and reduce stress and fatigue. In IES' Trees for a Healthy Community and Economy project in Broomfield last year, we demonstrated there are tangible monetary benefits to planting and maintaining urban trees. More information: Carol Lyons, Carol@i4es.org.

Look for IES at Arapahoe Libraries in April 2013

IES is presenting two Contaminants of Emerging Concern Workshops, "Do-It-Yourself – Clean and Green" at Arapahoe Libraries in April. Look for us at Koelbel Library on April 2 and Smoky Hill Library on April 11 in Centennial.

IES Institute News

IES welcomes new project team members: Trevor Hammrich comes to IES after completing his Master's in Landscape Architecture in 2010 from the University of Colorado. He has strong interest in exploring the rigor of scientific concepts as applied to design for the built environment.

Bridgette Haggerty graduated from Colorado College in 2010 with a BA in Environmental Science. Bridgette looks forward to continue learning about and working for environmental causes and organizations in Colorado.

Danielle Matthews joins the CEC team with a BS in Biology from the University of Virginia, and recently completed three years teaching math at the STRIVE Prep Charter School in Denver.

Rob Leteff is tackling development challenges for IES with an MA in Environmental and Natural Resources from the University of Wyoming. He also holds an MS in Library Studies from Florida State and a BA in English from Louisiana.

Joe Sexton joined IES's board in November and chairs the Marketing Subcommittee. He holds a BA from the New England Conservatory of Music and a Marketing MBA from the University of Colorado's Leeds School of Business. Joe is a marketing strategy consultant specializing in start-ups.

Board member Sarah Bourassa is a Marketing Coordinator at Hogan Lovells and has held various marketing and communications positions in the Denver area. She received her B.S. in News-Editorial Journalism with an emphasis in Public Relations and Spanish from the University of Colorado at Boulder.

The IES Board of Directors has two additional openings for energetic professionals who want to ensure the application of sound scientific solutions to our pressing environmental challenges. Please contact IES Treasurer Tiffany Joye, tiffany.joye@hoganlovells.com for a position description and application.

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IES is proud to be a member of 1% For The Planet, the Colorado Alliance for Environmental Education (CAEE), the Colorado Nonprofit Association, the Colorado Tree Coalition, the Colorado Watershed Assembly, and ColoradoGives.

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