Institute for Environmental Solutions

KULLERSTRAND GREEN www.i4es.org

2019 IES Wheat Ridge Greenbelt Improvement Project

The 2019 IES Wheat Ridge Greenbelt Improvement Project is an exciting chapter of community-based environmental work in the Greenbelt. The Institute for Environmental Solutions (IES), partnering with Wheat Ridge Parks and Recreation Department (WRPRD) and Kullerstrand Elementary School, will improve the ecological health and quality of riparian and grassland habitat along Clear Creek while providing environmental science education for local students.

Students plant trees in the Wheat Ridge Greenbelt.

IES has worked with WRPRD since 2012 to reduce the negative impacts of invasive species and storm water runoff along the Wheat Ridge Greenbelt. The 2019 project will focus on improving both the riparian and grassland ecosystems by increasing native plant cover and diversity, stabilizing soils to reduce erosion, and filling in the canopy cover. With the help of WRPRD, Kullerstrand students, volunteers, and IES Tree Stewards, the 2019 IES Wheat Ridge Greenbelt Improvement Project will implement a 3-year maintenance program for the newly planted sites to ensure high survival rates.

The educational goals of the project are to teach children in Wheat Ridge about Colorado's ecology and how to care for and improve their community. These ecological lessons will be developed based on Colorado's current science curriculum standards. IES will partner with Kullerstrand Elementary Schools' Teaching Responsibility And Independence with Learning Supports (TRAILS) program to provide students with hands-on ecology education in two workshops and two planting days. During the summer, IES will partner with the Wheat Ridge Summer Sun Camp to provide kids with an outdoor naturalist program where they will learn about the environment and how to care for the planting sites.

2019 Objectives:

- Restore ecological health of riparian and grassland ecosystems by removing invasive species and planting 100 native trees, shrubs, perennials, and grasses.
- Provide a hands-on naturalist program for TRAILS students with special needs and children in the community to restore and care for the Wheat Ridge Greenbelt.
- Care for new plants to ensure high survival rates by implementing a 3-year maintenance program.
- Evaluate the successes of the program with a final report and video.

The Wheat Ridge Greenbelt

The Wheat Ridge Greenbelt is a 300-acre woodland open space for community members along Clear Creek in the Denver metro area. Approximately 66 miles in length, Clear Creek is an important stream corridor that supports a healthy ecological landscape. The Greenbelt has experienced ecological decline due to drought, extreme weather, and limited municipal resources. To restore the habitat along Clear Creek, the 2019 Wheat Ridge Greenbelt Improvement Project includes planting of native trees, shrubs, flowers, and grasses in the riparian and grassland areas. Kullerstrand Elementary School students will improve the Greenbelt and enrich their science curriculum through workshops and planting days.

Kullerstrand Elementary students participate in an interpretive activity with Wheat Ridge Parks and Recreation staff during an IES workshop.

The riparian zone is the land that borders Clear Creek. Plants play an important role here by conserving soil, improving water quality, and controlling erosion. The grassland area is responsible for renewing soil fertility, protecting watersheds, and maintaining biodiversity. Both zones are vital to the health of the Wheat Ridge Greenbelt. The 2019 Wheat Ridge Greenbelt Improvement Project includes removing invasive species and planting 100 native species such as peachleaf willow and thinleaf alder.

IES will provide educational workshops for the students to demonstrate the importance of a healthy ecosystem and to train them as successful environmental stewards. In alignment with state-mandated science curriculum, students will engage in hands-on activities to learn about Colorado ecology in the classroom and out in the field. These workshops provide an important link between the goals of the planting projects, science curriculum, and environmental stewardship.

Growing the Next Generation of Environmental Stewards

Working with Kullerstrand's TRAILS program educators, IES will provide students with real-world science education. The TRAILS program provides at-risk students with behavioral, emotional, social, and academic support with the goal of mainstreaming students into general education classes. The workshops will teach students about ecology in their community, the importance of trees, and how trees clean the air and improve water quality.

Workshops are developed based on the students' general education requirements. Lessons will focus on life cycles of plants and animals. Students will learn how to properly plant and care for trees in all phases of the life cycle. During the planting day, the students will apply what they have learned and obtain a tangible grasp of how they can be environmental stewards. They will have an opportunity to socialize with their peers and other community members. Through these workshops, IES and Kullerstrand Elementary School will grow a new generation of environmental stewards.

Students from kindergarten through grade 5 participate in environmental stewardship with IES.

Tree Ambassador Program

Planting the trees is an important first step. Providing regular care to the young trees is equally important for project success. IES will continue its partnership with the Wheat Ridge Parks and Recreation Summer Sun Camp to provide opportunities for community service and ecology lessons. Sun Campers in the IES Tree Ambassador Program will make bi-weekly site visits throughout the summer to water, weed, and mulch the sites planted by the Kullerstrand Elementary TRAILS students. The Sun Campers will also conduct monthly tree measurements with WRPRD

staff members to learn how trees grow thanks to their efforts. The Tree Stewards and Girl Scout Troop will provide weekly maintenance by watering, weeding, and mulching the new area.

A Wheat Ridge Summer Sun Camper measures tree growth.

Support Environmental Stewardship in the Greenbelt!

Become a Wheat Ridge Greenbelt Tree Steward

Your help is needed! Tree planting and maintenance in the Wheat Ridge Greenbelt is a community-wide effort. Through the IES Tree Stewards program, community volunteers help students on planting and maintenance days, and provide needed routine maintenance to the newly planted areas. Tree Stewards are responsible for watering, weeding, and mulching the planting sites on a regular basis and improve the survival rates of the plants during the first three years at the site. Stewards are trained community members vital to the success of the Wheat Ridge Greenbelt Improvement Project. Become a Tree Steward and help improve the Greenbelt this summer! Please contact IES at Solutions@i4es.org for more information and to volunteer.

Donate and Support the 2019 Greenbelt Improvement Project

Please support IES and the 2019 Greenbelt Improvement Project to create more environmentally sound and healthy communities by donating today. IES is a 501(c)(3) charitable organization and your contribution is tax-deductible.

You can donate by:

- Mailing a check to: IES, 761 Newport Street, Denver, CO 80220.
- Donate by credit card directly to IES at: www.ColoradoGives.org/i4es. Your donation at www.ColoradoGives.org/i4es is safe and secure!
- Become a Tree Ambassador or Water Steward! Sign up at www.ColoradoGives.org/i4es to donate $25 or $50 a month.

How your contribution supports IES initiatives:

Thanks to our dedicated Tree Ambassadors and Tree Stewards, IES planting projects have high survival rates in the Greenbelt.

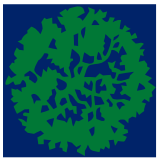
	Environmental	Educational
$50	Plant one large tree in the Greenbelt	Print student handbooks for workshops
$100	Plant three shrubs in the Greenbelt	Fund art materials and supplies to use during workshops
$500	Plant three large trees in the Greenbelt	Fund nature journals for the workshops and planting days
$1,000	Production of project video	Train volunteers to be Tree Stewards
$2,000	Plant 25 native shrubs	Host educational workshops for TRAILS students
$5,000	Planting materials: wheel barrows, soil, water tanks, t-shirts for volunteers	Host Summer Sun Camp outdoor interpretive program

IES Tree Project

The Institute for Environmental Solutions is an independent non-profit organization that delivers scientific solutions to improve our health and environment. The IES Tree Project's mission is to improve Colorado cities using tree science. Through multi-disciplinary partnerships and urban forestry programs, we:

- Improve the environment and community health,
- Educate children and adults to become environmental stewards,
- Engage community members to rehabilitate, improve, and maintain urban natural resources.

Contact IES by email or phone: solutions@i4es.org or 720-295-4437. Please visit our website at www.i4es.org.



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