2017-2018
IES Sheridan Quincy Trail Project

Final Report
January 2019

THE TREE PROJECT
ENERGY • WATER • AIR • CARBON

Institute for Environmental Solutions

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2. Executive Summary

The 2017 - 2018 IES Sheridan Quincy Trail (SQT) project took place along the Sheridan Quincy Trail between Federal Boulevard and Irving Street and on Sheridan School District No. 2 (SSDN2) property north of the west end of the trail. It was a collaboration among the Institute for Environmental Solutions (IES), the City of Sheridan, South Suburban Parks and Recreation District (SSPRD), the Fort Logan Northgate (FLN) School Leadership Class, and the Colorado State Forest Service Nursery. Funding for SQT was generously provided by the Xcel Energy Foundation and the Colorado Health Foundation.

The SQT project was based on a three-year design plan developed by DesignWorkshop. It was the third year of sustainable plantings to rehabilitate a non-motorized route and adjacent school district property. The project was designed to prevent stormwater runoff, improve trail aesthetics, and create an inviting community space, while giving leadership students the opportunity for hands-on environmental leadership education. It builds on the success of the 2015 IES Sheridan Quincy Trail and the 2016 IES Sheridan Quincy Trail Projects.

This report describes the project's origins, planning, processes, implementation, and outcomes. It provides the project goals, objectives, stakeholders, and stakeholder contributions. The report discusses the design and implementation of the SQT project in detail to serve as a replicable model for future projects. Finally, the report provides an evaluation and recommendations for future projects.

The 2017 - 2018 SQT project was different than past years because it was divided into two parts. The first part was the 2017 IES Sheridan Quincy Trail fall project, which took place along the trail. The second part was the 2018 IES Sheridan Quincy Trail spring community space project, which took place on school property near the 2015 tree planting site. This was a new endeavor for IES because it focused on community space development and installation, rather than just environmental improvements through planting of native trees and shrub species.

The FLN Leadership class participated in four workshops and two field project days. Students planted 154 plants along the Quincy Trail in the fall. In the spring, the students planted 34 trees and shrubs, installed two rock gardens, solar lighting, bee houses, and bat boxes during the community space building day. Throughout the school year, students visited the site on a weekly basis to provide maintenance to plantings on the trail and school property.

Students were engaged and excited about being on the trail to implement a project that would affect the community in a positive way. Challenges with the implementation of both parts of the project were resolved. Dividing the project into two parts was the biggest challenge, but with team collaboration and enthusiastic and flexible stakeholders, we were able to implement both parts successfully.

IES encourages comments and questions. Please contact IES at solutions@i4es.org.

FLN Leadership Class in front of the project banner

3. Introduction and Overview

This Report: 2017 - 2018 IES Sheridan Quincy Trail Project

This report explains the development and implementation of the 2017 - 2018 *Sheridan Quincy Trail Project*. The Institute for Environmental Solutions (IES) designed and implemented this project in Sheridan, Colorado to improve the ecological health of the Quincy Trail, while providing hands-on science education and leadership opportunities for Sheridan students. It is the first year of community space development along the trail, where the focus is to create a more inviting area for Sheridan residents to use.

This report documents the project's development, planning, implementation, outcomes, and suggestions for future projects. The project marks the third year of collaborative work between IES and stakeholders in the Sheridan community. This report and its appendices provide details about the ecological improvements to the trail, the first phase of community space development, and the participation of students from Fort Logan Northgate School's (FLN) Leadership Class. The project was developed to reduce stormwater runoff, control erosion, increase walkability and trail use, and promote the return of natural pollinators, while creating opportunities for students to learn real-world leadership skills. The project and report will be a model for future environmental education programs and volunteer planting and maintenance programs along Colorado's Front Range.

Institute for Environmental Solutions

IES delivers scientific solutions to improve health and environment. IES's vision is to create efficient ways of dealing with complex environmental problems. IES strives to prevent waste and unwanted side effects, provide opportunities to optimize environmental improvements and reduce energy consumption and green gas emissions through a unique multi-disciplinary approach. By engaging a broad spectrum of participants in examining these problems on a project basis, IES develops sound, cost-effective solutions.

The IES Tree Project

The IES Tree Project's mission is to improve the environmental quality of Colorado cities using tree science. The Tree Project helps communities, businesses, and individuals achieve multiple environmental improvement goals using one tool – city trees. Tree Project graduate interns and Institute Associates work on several initiatives to optimize the environmental, social, and economic benefits of urban trees. These initiatives include the development and implementation of community tree-planting programs, climate change mitigation through urban forest carbon credits, workshop presentations on the benefits of urban forestry, research on tree science, and outreach to achieve greater understanding of urban forestry benefits.

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The goals of the Tree Project are to:

- Improve the urban environment through strategic tree planting
- Facilitate collaboration among many community groups and individuals to find solutions to urban environmental challenges with trees
- Advance urban forestry science through increased collaboration with academic researchers and local experts

The IES Tree Project has completed nine planting programs. The first planting program, *Trees for Healthy Kids and Community Project*, took place in the fall of 2010 and spring of 2011 in Golden, Colorado. IES partnered with Mitchell Elementary School and the City of Golden to mitigate wind, noise, and air pollution by planting 40 trees on school property.

IES partnered with the City of Broomfield to implement the *Trees for Healthy Community and Economy Project* in 2011 - 2012. The project resulted in a plan to protect the environment while improving the local economy of Broomfield's new civic center through the use of urban trees.

During 2012 – 2013, IES initiated its first partnership with the City of Wheat Ridge with its *Revive the Greenbelt!* program. During the program, over 200 volunteers planted more than 200 trees and removed invasive weeds along Clear Creek in the Wheat Ridge Greenbelt to improve canopy cover and reduce erosion in the riparian habitat.

The *Preserve the Greenbelt Elementary Education Program* combined innovative hands-on workshops, educational planting days, and volunteer tree stewardship to engage students, educators, and families from Kullerstrand Elementary, Mountain Phoenix Community School, and Wheat Ridge High School. This resulted in the participation of 120 students in workshops and planting days, where over 200 native tree and shrub species were planted in the Greenbelt. The Colorado Alliance for Environmental Education awarded the *Preserve the Greenbelt* project with its 2014 Environmental Education Award for Excellence.

Tree Steward with Kullerstrand Elementary School student, IES Preserve the Greenbelt, spring 2014

In 2014 - 2015, IES continued its work in the Greenbelt and its collaboration with the City of Wheat Ridge and Wheat Ridge High School with the *Growing the Greenbelt Education and Environmental Health Project*. Students from Wheat Ridge High's Career Exploration Class learned about Colorado's ecology and careers in science through hands-on classroom workshops and an interactive planting planning event in which they prepared materials for a community planting day. The project culminated with the planting of over 150 new trees, shrubs, and grasses by community volunteers.

Since 2016, IES has planned and implemented a three-year environmental improvement project along a new trail section in the Greenbelt. The *Greenbelt Restoration and Environmental Education Network* (GREEN) program included three years of hands-on science education for students from Kullerstrand Elementary School, six planting days in the Greenbelt with over 800 trees, shrubs, and grasses planted, and a watering program supported by local children from the Wheat Ridge Summer Sun Camp.

Kullerstrand students planting, GREEN Project, spring 2017

As a result of these projects, the IES Tree Project has discovered that there are five critical factors that go into a successful environmental improvement project:

1. Collaboration with a full range of interested stakeholders
2. Careful planning of educational and planting components
3. Selection of planting sites and plant species to optimize survival
4. Good instruction on proper planting techniques supported by a well-organized volunteer stewardship program
5. Appropriate maintenance of planting sites for three years

The History of IES Projects in Sheridan

IES began working in the Sheridan community in 2014 with an initial partnership between IES and the City of Sheridan. Project stakeholders grew to include FLN, Sheridan School District No. 2, South Suburban Parks and Recreation District, Denver Water, and DesignWorkshop. IES met with all stakeholders to plan and implement a planting project along the Quincy Trail to help improve the environmental quality of the trail and support the City of Sheridan's plans to make the city more walkable. However, due to utility easements along the trail, IES moved the first year of the project onto school property north of the Quincy Trail with approval by the school district.

FLN students watering trees, fall 2016

The *Sheridan Quincy Project* was initiated during the 2015-16 school year. The first project, the 2015 *Sheridan Quincy Tree Project*, included 60 trees planted on school property and interactive hands-on classroom workshops that combined science and leadership activities. Students planted the trees in a spiral pattern created by DesignWorkshop. Species included catalpa, big-tooth maple, and hackberry.

During 2016 - 2017, IES designed and implemented the second year of the *Sheridan Quincy Project*. After careful review of the planting restrictions due to utility easements along the trail, IES and DesignWorkshop continued the spiral design from the previous fall into a series of shrub bands for the first phase of planting along the trail. Low-rooting native shrub species were selected to meet the easement restrictions and ensure plant survival along the trail. Students from FLN participated in two classroom workshops where they learned about Colorado's ecology and how to plan and implement community improvement projects. The students then planted three shrub bands along the trail including Wood's rose, mountain mahogany, and three-leaf sumac. Due to highly compacted soils, IES and South Suburban Parks and Recreation District finished the last band of rubber rabbitbrush during a second planting day. The planting included over 140 new shrubs along the trail.

Throughout the first two years of the project FLN students have been caring for planting sites during the school year. Students come to the planting sites weekly, weather permitting, to water, mulch, and pull weeds near the plantings. During the summer months, the IES Tree Stewards cared for the site.

Leadership Class Teacher Sharena Del Brocco and student planting, fall 2016

4. IES Sheridan Quincy Trail Project

Project Goals

The goals for the 2017 - 2018 Sheridan Quincy Trail Project were:

1. Improve the Sheridan Quincy Trail corridor by planting drought-tolerant native plants to improve storm water quality and reduce erosion. Other trail improvements include noxious and invasive species removal and trash pickup. These improvements focus on improving trail conditions so residents and visitors will enjoy using the trail more.
2. Provide Sheridan students with opportunities to plan and implement a planting project to improve their local community.
3. Engage community stakeholders to collaborate on trail improvements and implementation needs.
4. Build on the success of previous years of the Sheridan Quincy Trail Project to continue focusing on environmental improvement along the trail.

Project Objectives

The 2017 - 2018 Sheridan Quincy Trail Project was divided into two sessions; one for fall, and one for spring. The fall project focuses on planting native shrub, grass, and flower species along the trail to extend the native plant bands installed in 2016. The spring project began the development of a community space on the School District Property adjacent to the trail.

For the 2017 Sheridan Quincy Trail Fall Project, the following objectives were developed to meet the project goals:

1. Work with community stakeholders to plant 100 shrubs and native grass and flower seeds along the Sheridan Quincy Trail.
2. Conduct two workshops with the Fort Logan Northgate Leadership Class to learn about effective tree planting and care, local ecology, and planning community improvement project that emphasize student leadership and cooperation.

The objectives meet all four goals for the Sheridan Quincy Trail Project by giving local students the opportunity to collaborate with project stakeholders, to develop trail improvement recommendations and continues IES efforts to use native plants to address environmental concerns.

For the 2018 Sheridan Quincy Trail Spring Project, the following objectives were developed to meet the project goals:

1. Conduct two community space planning workshops where students gain career information from community stakeholders and learn how to plan and implement a community space.

This objective meets goals 1 through 3 by engaging students in developing a design plan for the new community space under the guidance of project stakeholders, which incorporates native plants and engaging features that promote use of the space.

2. Implement a community space building day to install an inviting space where Sheridan residents can enjoy the outdoors and use as an outdoor classroom for other Sheridan School District No. 2 students.

The second objective meets goals 2 and 3 as students conduct the work of installing the space with supervision and help from project stakeholders.

For both projects, the following objectives were developed. These objectives will be addressed together.

1. Plan and implement a three-year maintenance program to water, mulch and weed the planting and community space sites with Fort Logan Northgate students and IES Tree Steward volunteers to establish plants and grasses.
2. Evaluate the project and create project reports and informational videos with feedback from stakeholders on improvements for future projects.

These last objectives meet goals 3 and 4 for the project by providing additional care to shrubs planted along the Sheridan Quincy Trail and trees and shrubs planted on school property. Feedback on the project ensures the establishment and long-term success of the project through regular maintenance and project evaluation.

Education and Fort Logan Northgate Leadership Class

To prepare the students for the activities scheduled throughout the year, the IES Tree Project Team planned and arranged a series of workshops to coincide with each session of the project. The educational program focused on using the leadership and collaboration skills students learn in the classroom to develop community-based projects and address environmental improvements in the Sheridan community. Prior to the 2017 fall planting day, IES led a workshop with the students to teach them how to plant trees along the trail, safety rules and guidelines, and the differences between native plants and noxious weeds. After the planting day, IES conducted a second workshop to bookend the planting day events. The second workshop had modules to develop a banner about the projects to hand along the trail, a demonstration on stormwater runoff, and a chance for students to provide feedback on the project.

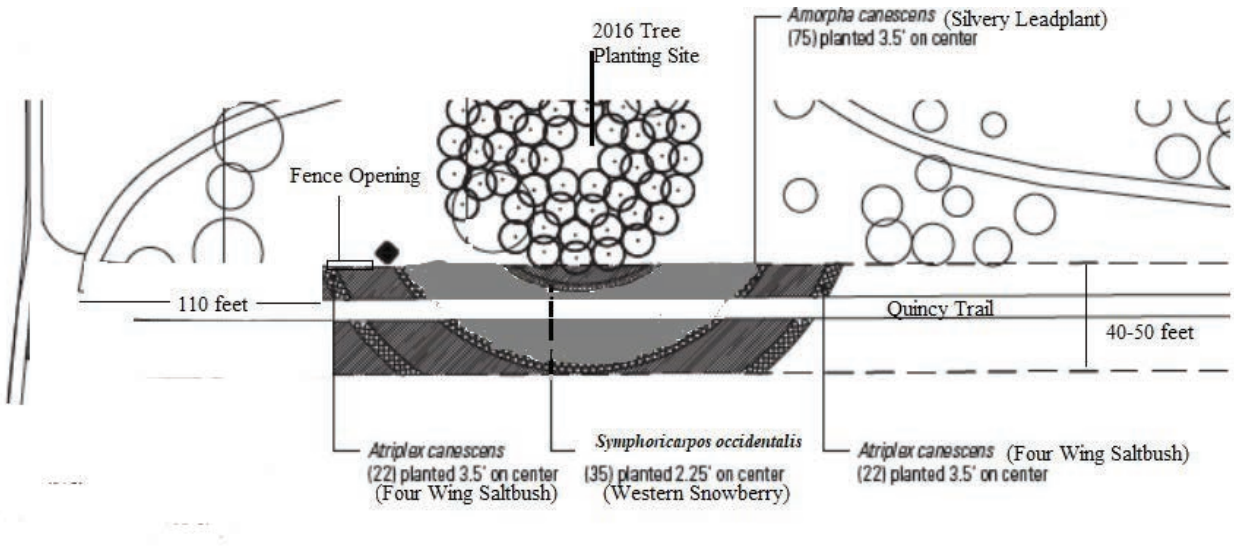
Two workshops were also conducted in the spring prior to the Community Space Building Day. These workshops invited stakeholders and community leaders to speak with the students about how leadership, education, and collaboration were important for their jobs and the development of the Sheridan Quincy Trail. During the first workshop, Cyndi Wright from SSDN2 spoke with the students about her job and helped the students develop some potential design plans for the community space. One feature from each student group was then chosen for the inclusion in the final design plans. During the second workshop, Jennifer Henninger from the City of Sheridan and Shawn Wissel from South Suburban Parks and Recreation were invited to speak with the students. Students painted rocks with pictures and inspirational phrases to use as part of the kindness rock gardens that would be installed in the community space. These workshops served as important opportunities for students to engage with their community leaders and make significant contributions towards the development of the community space. More information about the workshops can be found in the Project Events chapter of this report.

Cyndi Wright works with students to develop ideas for the community space during a workshop

2017 Fall Sheridan Quincy Trail Planting Day

The fall 2017 Sheridan Quincy Trail Project continued planting along the trail based on the planting design plan developed

by DesignWorkshop in 2015. The design uses native shrubs in a series of bands that radiate from a spiral grove of native trees planted adjacent to the trail as part of a project IES implemented in 2015, which consisted of 60 trees of big-toothed maple (*Acer grandidentatum*), hackberry (*Celtis occidentalis*), and catalpa (*Catalpa speciosa*) species. The second planting occurred in the fall of 2016 on the eastern section of the trail, which included mountain mahogany (*Cercocarpus Montanus*), Wood's rose *(Rosa woodsii)*, three leaf sumac (*Rhus trilobata*), and rubber rabbitbrush (*Ericameria nauseosa*).



Final fall planting design plan for the Quincy Trail in Sheridan

The 2017 Sheridan Quincy Trail Project addressed the second phase of planting, which continued planting from the 2016 project site to the opening in the fence at the west end of the trail. The plan was significantly modified from the original design as the number of plants proposed was too high for one planting day and some of the species used were either not permitted by the City of Sheridan or unavailable from the Colorado State Forest Service Nursery. The updated plan reduced the number of bands and changed some of the proposed species. Selection of the plants was based on a variety of factors. First, all the plants had low-rooting depths to meet the easement requirements along the trail for Denver Water. Second, all the species are drought-tolerant to improve their chances of establishment along the trail. These species are more tolerant of limited water availability, which is ideal as irrigation is not available. Lastly, all the plant species are native to Colorado and are adapted to the environment found at the site.

The site was prepared during several site visits by volunteers and IES Tree Project Team members. On September 9, 2017, Xcel Energy held a Day of Service event at the project site. IES and Xcel Energy invited the Sheridan community to participate in a community service project. Volunteers and IES team members weeded, watered, and mulched the existing plants along the trail from the 2016 planting project. They also marked the locations for the 2017 planting bands. Markings were used by SSPRD to pre-dig the planting bands, making digging and planting easier on the scheduled planting day. On October 6, 2017, the IES Tree Project Team finished

Volunteers removing weeds during the 2017 Xcel Energy Day of Service

site preparation by breaking up larger soil clods and creating more even terrain in the planting areas as a safety precaution.

One day of planting was planned and implemented for the 2017 Sheridan Quincy Trail Project. On October 12, 2017, students from Fort Logan Northgate Leadership Class planted more than 150 shrubs along the trail. Students planned four circular bands of dwarf leadplant (*Amorpha fruticosa*), fourwing saltbrush (*Atriplex canscens*), and western snowberry (*Symphoricarpos occidentalis*). Between the bands, a variety of native grasses and wildflower species were also seeded. More information on the fall planting days is provided in the Project Events chapter of this report.

2018 Spring Sheridan Quincy Trail Community Space Project

In 2018, IES began work to plan and implement a community space along the trail to invite additional use of the trail by community members and visitors. The first phase of the community space was planned for the property owned by Sheridan School District No. 2, that lies adjacent to the trail. To begin development of the community space, IES met with stakeholders from SSDN2 and the City of Sheridan to develop ideas and potential features for the space. Suggestions and ideas from the Leadership Class were also taken and incorporated into the final design plan. The IES Tree Project Team developed an initial design plan with trail, trees, and wildlife-friendly features to create an inviting and educational space for the community. The final design plan was reviewed and approved by SSDN2 prior to the start of the Community Space Building Day.

To prepare for the building day, IES started site preparation by marking locations for fence posts, lights, and large trees. Since soils on the property are highly compact, SSPRD dug holes for these features to make the planned building day activities easier for the students.

The 2018 Sheridan Quincy Trail Community Space Building Day was held on May 18, 2018. South Suburban Parks and Recreation arrived early to dig the holes before the students arrived. Students arrived at 10:00 am to begin work. They installed two bat boxes, a lighting fixture, and two fence posts to mount two mason bee houses. They also planted 34 trees and shrubs at the site and built a short, mulch-covered trail through the site. They dug spaces to install two kindness rock gardens and removed weeds from the space. More information on the spring planting day events is provided in the Project Events chapter of this report.

FLN leadership students install a light post during the Community Space Building Day

Sheridan Quincy Trail Maintenance Program

To maintain the site and ensure plant establishment, the Leadership Class made weekly visits to the site under the supervision of IES to care for plants along the trail. These weekly visits were conducted from September to the end of May, weather permitting. Students walked to the Sheridan Quincy Trail during their class period and spent 20 minutes during each visit to water, weed, and mulch the site. In the summer, while students are out of school, IES Tree Stewards continue to provide care for the sites twice a week. Care was provided to trees and shrubs planted as part of IES Tree Project efforts along the trail.

Project Donors

IES received funding for this project from Xcel Energy Foundation and the Colorado Health Foundation. The Xcel Energy Day of Service was a valuable contribution toward the SQT project as it provided much-needed site preparation prior to the

fall planting day. The day, which honors the memory of victims of the attacks that occurred on September 11, 2001, allows community members to engage in community service projects throughout the state. At the Day of Service, volunteers from Xcel Energy, IES, and the Denver metro area helped water, mulch, and remove weeds along the trail while also marking and measuring the site for the 2017 fall planting project.

5. Project Organization

Project Stakeholder Involvement

The Institute for Environmental Solutions worked closely with several stakeholders to plan and implement the 2017 - 2018 IES Sheridan Quincy Trail Project. They were instrumental in the planning and implementation of the project.

Fort Logan Northgate (FLN) School

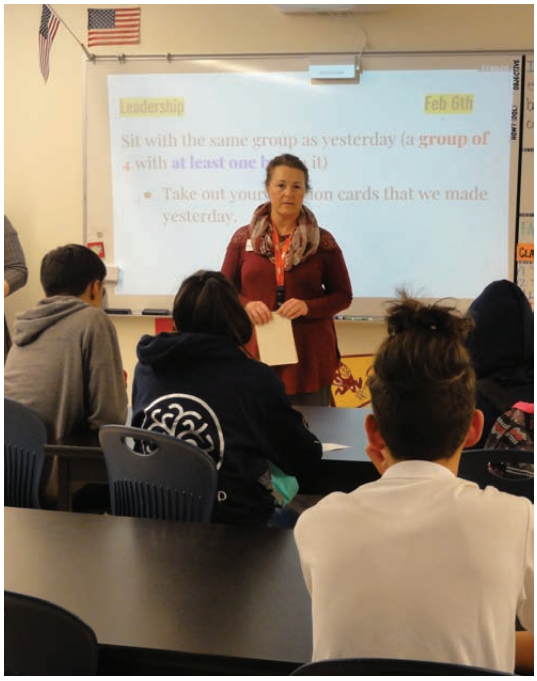
Fort Logan Northgate provided valuable in-kind contributions to the project as a project partner. Sharena Del Brocco, Leadership Teacher, attended planning meetings, reviewed education materials used in the classroom, and participated in weekly maintenance activities. FLN hosted four workshops during the 2017 - 2018 school year and allowed students to attend project events and work days for the planting and community space building days. Amy Kolquist, Vice Principal, provided school administration support.

City of Sheridan (COS)

The City of Sheridan is a key project partner. COS owns the trail and provided approval for all project plants and activities. Jennifer Henniger, City Planner, and Randy Mourning, Director of Public Works, reviewed planting plans and provided valuable feedback to ensure that project plans comply with utility easements and align with the city's goals for the Sheridan Walks program. Ms. Henninger spoke at a classroom workshop to answer students' questions about city planning and the role of leadership and collaboration in her job.

Sheridan School District No. 2 (SSDN2)

Sheridan School District No. 2 is another key project partner. SSDN2 reviewed project materials, allowed planting on school property, and provided water for the maintenance program both on school property and along the Quincy Trail. Cyndi Wright, Chief Operations Officer and Maintenance, provided valuable insight on the plan for the community space. Ms. Wright attended a classroom workshop in the spring to discuss the school district's role in the project and the importance of building community spaces on school property. The SSDN2 staff has provided in-kind hours and materials to fill three water tanks on school property and along the trail, ensuring that plants survive and that students and IES Tree Stewards can care for the trees and shrubs.



Cyndi Wright of SSDN2 talking with students during a classroom workshop, spring 2018

South Suburban Parks and Recreation District (SSPRD)

South Suburban Parks and Recreation District is the project partner responsible for the paved portion of the Sheridan Quincy Trail. SSPRD provided materials and in-kind contributions for he project, including mulch and tools for planting, and pre-dug holes for the planting and community space events. Shawn Wissel, Trails and Natural Open Space Manager, ensured that IES had the materials and heavy equipment needed to complete planting along the trail and on school property for the fall and spring events and attended a workshop where he talked with students about his role in the SQT project and the skills and collaborative efforts his job entails. Mr. Wissel also spoke at a classroom workshop to discuss SSPRD's role in the project, and how he collaborates with the various stakeholders in his job.

The Tree Project Steering Committee

IES also drew from the expertise of the IES Tree Project Steering Committee throughout the project. The Tree Project Steering Committee is a group of dedicated volunteers with backgrounds in a variety of professions that aid the Tree Project. IES Tree Project members took advantage of quarterly meetings with Steering Committee members to discuss ways to improve the project. A list of Steering Committee Members can be found in the Authors and Acknowledgements chapter and the meeting agendas from quarterly meetings can be found in Appendix A.

Shawn Wissel of SSPRD talking with students during a classroom workshop, spring 2018

Funding

SQT was funded through grant support and in-kind and material donations from project stakeholders. Funders for the project were Colorado Health Foundation and the Xcel Energy Foundation. The Xcel Energy Foundation generously funded the project and provided volunteers for the 2017 Xcel Energy Day of Service. The Colorado Health Foundation's Activating Places and Spaces Grant provided additional financial support.

IES worked diligently to secure funding for the program. IES Tree Project team members wrote grant applications, implemented a business and community outreach program, and sought personal donations to increase the scope and effectiveness of the project to meet project goals.

Volunteers during Xcel Energy Day of Service

Project Plan

The Tree Project developed two Project Plans to manage project activities and guide team members for the fall and spring portions of the project. IES Project Coordinator, Patti Venneman, developed the plan for the fall portion of the project, and Sabrina Kleinman, IES Associate, developed the plan for the spring. For guidance, the IES Tree Project Team presented the plan to stakeholders and the Tree Project Steering Committee. The fall Project Plan can be found in Appendix B and the spring Project Plan can be found in Appendix C.

Project Timeline

The project had two phases: the fall trail planting and the spring installation of the community space. The fall timeline was developed independently, while the spring timeline included items from the fall timeline, such as the project evaluation, final report, and video production. The fall project timeline can be found in Appendix B and the spring project timeline can be found in Appendix C.

The project had six major components:

- Project organization and scheduling
- Planting organization and implementation
- Education program organization and implementation
- Site maintenance program
- Public relations/ communications
- Project documentation

IES Associates prepare the planting site, fall 2017

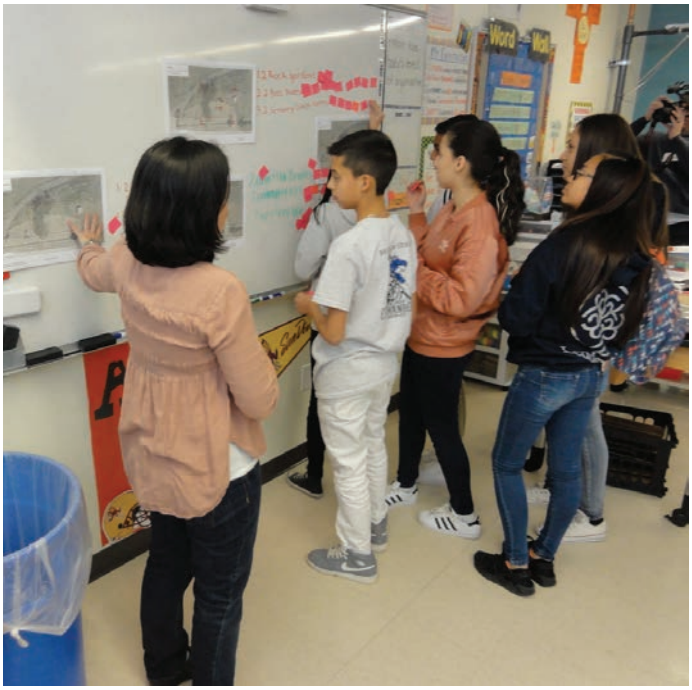
The initial 2017 - 2018 SQT Project Plan was developed for the planting of shrub bands in the fall. It focused on creating interactive classroom workshops for students to learn more about ecology and implementing environmental improvement projects. Students were introduced to the project and given tips on tool safety and tree planting during the first workshop before implementing them during the planting day. After the planting day, students participated in a second workshop to work on a project banner, provide project feedback, and learn about stormwater runoff. They also visited the site (weather permitting) during the rest of the school year.

The second phase of the project was developed in the spring after IES received funding from the Colorado Health Foundation. The phase was new to the IES Tree Project as it focused on the development and implementation of a community space along the trail. IES again met with key stakeholders to discuss ideas and planning for a new community space implementation event. The Tree Project also planned new workshops for FLN students that involved learning about community space development and interacting with key stakeholders to learn about the ways that municipal agencies work together to create projects. Students participated in two extra classroom workshops where students developed ideas for the community space and spoke with stakeholders about the contributions to the project. Students also participated in a community space building event, where they installed design elements they had chosen during the first workshop and planted new trees and shrubs on school property.

IES Executive Director Carol Lyons planting with students

6. Community Collaboration

The success of the Sheridan Quincy Trail project depended on the support and feedback IES received from a wide variety of stakeholders in the Sheridan community. Several organizations and groups were vital to the development, implementation, and maintenance of the Sheridan Quincy Trail project (SQT). These groups provided much needed input on the project based on their expertise and familiarity with the project area and community. Many of these partnerships were first established in 2015, when the City of Sheridan first approached IES to develop a strategy to address runoff and erosion concerns along the trail. That partnership includes the participation of the City of Sheridan, Sheridan School District No. 2, South Suburban Parks and Recreation District, Fort Logan Northgate School, and Denver Water.



FLN students vote on what features to include in the community space during the a workshop.

Importance of partnership between IES and FLN

The partnership between IES and Fort Logan Northgate School (FLN) is an important component to the success of the SQT project. The 2017-2018 project marks the fourth year of partnership between IES and the school. IES's partnership with the school focuses on students from the school's Leadership Class, who learn about civic engagement and leadership in environmental issues. Sharena Del Brocco, the Leadership Class teacher, and Assistant Principal Amy Kolquist are valuable partners for this project as they provide guidance and feedback on workshop activities and coordination for project events. Ms. Del Brocco reviewed all project materials, including workshop content, planting day agendas, and all proposed project activities. Her input ensures that workshop materials align with topics covered in the Leadership Class and that necessary safety measures are in place when students work along the trail. Ms. Del Brocco and Ms. Kolquist also provide valuable feedback on project successes and improvements. Their support allows the projects to occur by providing school facilities as needed, assisting with scheduling project activities, and organizing the students during project events.

Importance of partnership between IES and SSDN2

The partnership between IES and Sheridan School District No. 2 (SSDN2) provides IES with much-needed feedback and input on project planning, implementation, site maintenance, and compliance with school district planning. Cyndi Wright, Chief Operations Officer for the School District, reviews all plans and ensures that water tanks along the trail are regularly filled when FLN students and IES Tree Stewards are actively watering plants along the trail. Her staff members address repairs to the water tanks along the trail and the Cube, which is located on the SSDN2 property and stores IES maintenance equipment.

This year, Ms. Wright was integral to the success of the community space project by providing input as IES developed the design plan and approving all materials installed on school property. She was also the guest speaker during the first student workshop with the FLN students. During the workshop, Ms. Wright helped students understand the costs and installation requirements for features they wanted to include in the community space, which helped them develop feasible

options for the design plan. The support of SSDN2 has been essential to the establishment of native plants along the trail and to the development of the community space.

Importance of partnership among IES, COS, and SSPRD

The City of Sheridan (COS) and South Suburban Parks and Recreation District (SSPRD) are important stakeholders for the SQT project, as they manage the trail and associated easements. The City of Sheridan owns the trail itself and provides IES with valuable feedback on all project plans and designs. Jennifer Henninger, City Planner for the City of Sheridan, works with IES to ensure that all project plans comply with easement restrictions and city planning requirements prior to implementation.

Jennifer Henninger, COS, discusses the proposed community space plan with Sabrina Kleinman, IES

Devin Granbery, City Manager for the City of Sheridan, has also assisted IES by coordinating efforts with the City to address the vandalism along the trail. Mr. Granbery presented the June 2018 vandalism incident to the Sheridan City Council to obtain funding. Mr. Granbery has also helped coordinate efforts among project stakeholders to install better security features along the trail and replace damaged plants once the additional funds were granted.

SSPRD manages the paved portion of the trail. Shawn Wissel, Trails and Natural Open Space Manager, provides valuable help for the SQT project. Mr. Wissel coordinated the delivery of port-a-potties for both the planting and community space building events and extra planting equipment, such as mulch, shovels, and wheelbarrows. His team prepared the sites by digging holes for plants and other features prior to both event days, which enabled students to plant trees and shrubs in the allotted time for the project. Going above and beyond, Mr. Wissel and his team helped students plant large trees and much of the hummingbird flower plants during the community space building day. His efforts ensured that all project activities were finished on time and that students worked safely during the event.

Importance of relationship with CSFS Nursery and Alameda Nursery

The Colorado State Forest Service (CSFS) Nursery and Alameda Nursery are important sources for plants used for the fall and spring projects. During the 2017 Fall SQT Planting Project, IES Associates consulted with the CSFS Nursery on which plants would be available for the project and on potential substitutes for plants that needed to be replaced in the original planting plan. CSFS Nursery also provided the IES Team with regular updates on plant availability and coordinated delivery of the plants on the planting day. For the community space building project, IES ordered plants from Alameda Nursery. Alameda Nursery was used because it had stocks of larger trees and a wide variety of shrubs, which included those proposed for the community space. IES Associates worked with Alameda Nursery to select plants based on their current availability and coordinated delivery of the plants to the site for the community space building day. IES's work with both nurseries ensured the proper selection of plants for the space and their availability for the project.

Community Outreach: Banner, t-shirts, newsletters, and social media

Community outreach is an important component of the SQT project, which IES uses to introduce the project to the

community-at-large and to provide regular updates to project stakeholders and residents. Prior to the fall, IES developed a project prospectus about the history of the project and the year's proposed activities and focus. The prospectus was printed and distributed to local businesses near the SQT project and to IES supporters. IES Associates visited local businesses to talk about the project and invite community members to visit the site and support the environmental improvement efforts along the trail. Tree Project Associates updated the project prospectus with information about the spring community space events prior to implementing the spring aspect of the project.

IES prepared articles about the project in the IES quarterly newsletter and provided articles for the monthly Sheridan Newsletter. IES created posts on Facebook, Instagram, Twitter, and LinkedIn about the project, which included photos and brief updates. As part of the second fall workshop, FLN Leadership students provided quotes and ideas that were used to create the project banner that was hung along the trail during the community space building day. The banner provided an opportunity for students to present the project to the wider community and discuss the importance of their work along the trail. The banner design incorporated the spiral design from the planting plan, and student quotes about the project such as what the best part of the project was, why it was important to plant native trees and shrubs, and why they want to improve the Sheridan Quincy Trail. The banner design can be found in Appendix D.

IES created project t-shirts to thank the students, volunteers, and IES Associates during the fall planting day. The t-shirts included logos from all the project sponsors and partners and recognized the student's efforts in environmental leadership.

FLN Leadership students hang the project banner along the trail during the community space building day

Jesse Johnson, IOTK Media, interviews students during the community space building day

Project Video

To showcase the events of the fall and spring projects, IES hired Jesse Johnson of IOTK Media to develop a project video. Mr. Johnson attended and recorded all project events and conducted interviews with IES team members, key project stakeholders, and students from FLN in both English and Spanish. IES created a video plan that guided Mr. Johnson to create both a short promotional video and a longer full project video. The plan ensured that the videos accurately portrayed the project events. The short version serves as a promotional video for the project, showcasing the main project events and importance of the project to the broader Sheridan community. The long version provides an in-depth presentation of

the project. The videos are posted on IES's YouTube channel, social media platforms, and website, and a hard copy was given to all project stakeholders.

Importance of Community Collaboration

The success of IES projects rests on the effectiveness of the partnerships and collaborative relationships fostered among the community. IES uses community partnerships to increase awareness of the importance of the project and the overall project goals and objectives. The on-going success of the SQT project relies on maintaining support with key stakeholders through their continued investment and participation in science-based environmental improvement projects. Due to the strong partnerships and collaborative efforts with the project's stakeholders, the Sheridan Quincy Trail received much needed improvements through the planting of native shrubs, forbs, and grasses along the trail and the initial development of a community space on SSDN2 property. These improvements helped to further define the trail as a common space for the community. This year's project also continued to teach a new class of FLN Leadership Students about the value of leadership in environmental and community improvement projects through meaningful engagement during all phases of the project. The partnerships created between IES, COS, SSDN2, FLN, and SSPRD will ensure the continued success of projects in the Sheridan community for years to come.

7. Project Design and Events

2017 IES Sheridan Quincy Trail Fall Project

Project planning began in the summer of 2017, with a project plan and budget, which can be found in Appendix B and C. The project is based on the trail project designed by DesignWorkshop. The original design can be found in Appendix E. IES team members held preliminary meetings with the City of Sheridan, South Suburban Parks and Recreation District, Sheridan School District No. 2, and Fort Logan Northgate School. The initial planning meeting was August 22, 2017. IES held a follow-up meeting with Shawn Wissel of SSPRD on August 30, 2017. IES received feedback regarding workshop dates, planting dates, and schedules for the students returning to the site to water and mulch the 2016 SQT site. Meeting agendas can be found in Appendix F.

XEDOS group photo

IES applied and was accepted for the Xcel Energy Day of Service volunteer program in May of 2017. The Xcel Energy Day of Service is a volunteer event for Xcel Energy employees to give back to their community in memory of the victims of September 11, 2001. This was the second year IES participated. The event was held on September 9, 2017. Twenty employees from Xcel Energy along with IES and community volunteers participated to prepare the trail for fall planting. They weeded, mulched, and watered the 2016 site. They also assisted with measuring and staking planting areas for the fall 2017 planting. SSPRD provided materials for the event including shovels and wheelbarrows.

Students working during Workshop Two

The first Fort Logan Northgate Leadership Class workshop was organized by IES Graduate Intern Kate Brayton. The workshop was organized into three rotating modules: tools and safety, how to plant, and native and noxious species. Workshop One outline and modules can be found in Appendix G.

Workshop One was held on September 19, 2017 at FLN during the Leadership class period. Students were introduced to the project and to IES team members. They were then broken up into three groups and rotated through the modules. Tree Project Coordinator Patti Venneman ran the how to plant station where students were taught the basics of planting shrubs. She silently modeled the process, and then students worked together to repeat the process to demonstrate understanding. IES Associate Sabrina Kleinman led a module about Colorado's ecology where she discussed native plants and noxious plants and weeds found in the Sheridan area. Students played a game to identify if a plant was noxious or native. John Kelly, IES Tree Project Manager, went over tools and safety with the students, where they learned about the tools they would be using for the planting day and how to safely use them. They also discussed important safety rules to follow during the planting day. At the end of the workshop, students returned to their seats, and IES team members wrapped up the workshop and answered questions the students had. Workshop One photos can be found in Appendix H.

Workshop Two was designed by Graduate Intern Kate Brayton. It was organized into three modules: project evaluation, banner creation, and an interactive demonstration on stormwater runoff and erosion. Workshop Two outline and modules can be found in Appendix I.

Workshop Two was held on November 7, 2017 in the FLN Leadership classroom. It began with an icebreaker to allow IES team members to set up the modules. Students were broken up into three groups and rotated between each module. Kate Brayton led the evaluation module where she used mind mapping strategies to discuss what the students enjoyed about the planting day and what they thought they could do better. Mind mapping is a brainstorming technique where students have a main idea, and they come up with words or phrases that go with that idea. Sabrina Kleinman walked the students through the banner module. The students discussed the important parts of the project they wanted to share with the community. They then chose photos for a banner that would hand along the trail. Patti Venneman and John Kelly led the erosion module. Models were made with tin bread pans, forms, planting soil, and water so the students could see how plants help reduce storm water runoff. At the end of the modules, students returned to their desks and IES team members answered questions and thanked them for their hard work. Photos of the workshop are found in Appendix J.

The planting plan was originally developed by DesignWorkshop. The architectural landscape firm was unable to assist in planning the fall 2017 planting. John Kelly and Sabrina Kleinman adjusted the number of shrubs in the original design, so they could fit into the bands along the trail. Some of the proposed plants had to be modified. Buckthorn is not allowed in Sheridan due to the large thorns on the plants, and kinnickinnick was not stable enough to be successful on the site. New plants were selected based on availability with the Colorado State Forest Service Nursery. Due to the new calculations and the availability of the plants, IES changed the planting plan to have three shrub bands instead of the four originally detailed in the plan. IES worked with Colorado State Forest Service Nursery to purchase the plants and have them delivered to the planting site. Buffalo Brand Seed provided the native grass and wildflower seed mix. During preparation for the site for planting day, IES discovered the ground was too hard to dig by hand, so SSPRD pre-dug the planting bands. See Appendix K for the planting plan.

Plant Name	Number Planted
Four-wing saltbush	44
Western snowberry	25
Dwarf leadplant	75

The planting day event took place on October 12, 2017 along the Sheridan Quincy Trail. Students arrived at 10:45 am and had pizza for lunch. The students were broken up into teams, and then paired off with a list of shrubs they needed to plant. The students planted 154 plants.

The students did not have time to plant all the grass and wildflower seed areas as originally planned, so IES team members spread the grass and wildflower seed mixes. The mixes included 50 pounds of modified native grass seed mix and 15 pounds of western wildflower mix. The planting plan, agenda, and worksheet for students can be found in Appendix K. Planting day photos can be found in Appendix L.

Students planting during the 2017 SQT Planting Day

Once the weather warmed up around mid-April, students visited the planting site once a week to water, weed, and mulch the new and existing bands. The leadership class met with John Kelly on Tuesday afternoons, weather permitting. Tree Stewards took over the maintenance responsibilities once school was done for the summer months. IES Tree Stewards met at the site on

Wednesday evenings and Saturday mornings to water the planting sites.

Banner Design and Construction

The banner concept was introduced to the students during the second workshop. Students were tasked with discussing what they wanted the community to know about themselves and the project, and they picked out photos to put on the banner. Patti Venneman put the information together and created the basic design for the banner, which was a spiral design to match the overall trail planting design. The banner design concept was sent to the graphic designer. After the graphic designer completed the design for the banner, the text was sent to Amy Kolquist, FLN Assistant Principal, for a Spanish translation. The banner was sent to a printer for printing after the translation was completed. The banner was presented to the students at Workshop Four (see below) and hung at the site during the community space building event. The banner concept design and final banner can be found in Appendix M.

2018 Sheridan Quincy Trail Spring Community Space Project

The planning for the 2018 SQT Community Space Project began in late 2017 and early 2018. The community space was initially planned to be implemented along the trail, but due to easements and time limitations, the IES team and Sheridan School District thought it would be easier to complete a project on the adjacent school property. The community space was implemented on school property adjacent to the trail and west of the 2016 Sheridan Quincy Tree Project site. IES met with Cyndi Wright and Shawn Wissel to discuss strategy and plans. Sabrina Kleinman designed the space after input from the leadership class students, and with guidance from team members, Cyndi Wright, and Judith Ward. Meeting agendas can be found in Appendix N.

Students painting rocks during Workshop Four

Workshop Three for the Fort Logan Northgate Leadership Class was held on February 6, 2018 and was designed by Sabrina Kleinman. It was divided into two parts: a guest speaker presentation and a question-and-answer session, and community space planning activity. Patti Venneman opened the workshop and introduced Cyndi Wright of SSDN2. Ms. Wright talked a few moments about her job, her background, and working with stakeholders to meet school district goals. Sabrina Kleinman led the community space design segment of the workshop. Students were divided into groups and given different components of the community space, a price for the items, and a budget. Students worked together in groups to come up with a design for the community space based on a set budget. Students voted on which elements they preferred from each presented design. Ms. Wright stayed for the entire workshop to answer questions and help with the designs. The agenda, worksheets, and photos can be found in Appendix O.

Workshop Four was designed by IES Graduate Intern Kelly O'Toole. It was divided into three parts: student presentation, where they discussed the project and what it meant to them, guest presentations, and question and answer sessions, and a "take a rock, leave a rock" section, where students decorated rocks to leave as part of the community space. Shawn Wissel of SSPRD and Jennifer Henninger of City of Sheridan were invited to be guest speakers.

Workshop Four took place on April 17, 2018. Leadership teacher Sharena Del Brocco was out on Jury Duty, so there was a substitute teacher. Carol Lyons, IES Executive Director, opened the workshop and revealed the banner. She asked students to come up and talk about the project. Students spoke about the project, what they liked, and what it meant to them. Ms. Lyons then introduced speakers Jennifer Henninger and Shawn Wissel to talk about their careers, education, and working with stakeholders. Patti Venneman introduced the "take a rock, leave a rock" project and instructed students that they would be painting rocks for the kindness rock gardens that were going to be installed in the community space. Kelly O'Toole closed the workshop, thanked the students for their hard work, and reminded them about the community space building day. Agenda and photos are found in Appendix P.

Students gathering mulch during the 2018 IES SQT Community Space Building Day

The community space was designed by Sabrina Kleinman. Cyndi Wright provided input for the project, and Judith Ward, Tree Project Steering Committee member, provided professional feedback on the design. IES originally wanted to include a concrete slab for picnic tables and a shade structure, but it was too complicated considering the limited time, so IES decided to save it for a future date. IES worked with Alameda Nursery to acquire the plants, and SSPRD dug the holes for the plants, light post, and bee boxes, prior to the community space building event. The planting plan can be found in Appendix Q.

The community space building event took place on May 18, 2018. It was originally scheduled for 11:00 am to 3:00 pm, but due to weather concerns it was moved from 10:00 am to 2:00 pm. SSPRD was digging holes when IES team members arrived at 9:00 am. Alameda Nursery did not arrive with the plants until after the event started, around 11:00 am. It eventually worked out in IES's favor, because the holes were dug and SSPRD could work with the students to put the large trees into the ground. The students broke for a pizza lunch at noon. After lunch, IES unveiled the banner and hung it on the fence along the trail. Students installed two bat boxes, poles for two bee houses, a lamp post, and two rock gardens. The bee houses were installed at a later date. Students put mulch down for the path that runs through the community space, to a trail that goes to the Sheridan High School football stadium. The students also planted 36 trees and shrubs

Plant Name	Number Planted
Bur oak	2
Catalpa	3
Hummingbird flower	20
Silver buffaloberry	5
Wood's rose	3

The agenda and photos can be found in Appendix R.

Watering and Maintenance Schedule

Through the summer, IES Tree Stewards visit the site twice a week to water, mulch, and weed, weather permitting. Stewards use three tanks for watering all plant sites. SSDN2 fills the three tanks every week for the maintenance program. IES continues to recruit Tree Stewards to help water and mulch the site.

8. Project Evaluation

The project was a success. IES met all program objectives, including planning and implementing four classroom workshops and a community space building day. As the third year of the project, the 2017 - 2018 Sheridan Quincy Trial program continued to strengthen existing partnerships with the community and project stakeholders.

IES updated SQT goals and objectives for spring and summer of 2018 to include the community space, because it was awarded a grant from the Community Health Foundation. Below are the objectives and respective accomplishments for fall of 2017 and spring and summer of 2018:

Fall 2017 Objectives and Accomplishments

1. Work with community stakeholders to plant 100 native shrubs, grasses, and flower seeds.

IES planned and implemented a planting day on October 12, 2017. Throughout the day, IES Associates and FLN Leadership Class students planted the following:

- More than 100 square feet of native grasses and wildflowers
- 44 four wing saltbush
- 35 western snowberry
- 75 silvery leadplant

Frequent breaks for water and snacks were effective in keeping students motivated throughout the day. Students enjoyed the planting, the weather was clear, and the temperature was comfortable for planting.

Two FLN Leadership Class students mulching during the planting day on October 12, 2017

2. Conduct two workshops with the FLN Leadership class to learn about effective tree planting and care, local ecology, and planning community improvement projects while emphasizing student leadership and cooperation.

IES planned and implemented workshops on September 19, 2017 and November 7, 2017. The first workshop prepared students for the fall planting event with modules on planting, tool safety, and noxious versus native plants. During the second workshop, students learned how plants prevent stormwater runoff, evaluated the planting day, and prepared the project banner. The modular curriculum method was successful for both workshops, with students actively participating in all modules

Spring-Summer 2018 Objectives and Accomplishments

1. Conduct two community space planning workshops where students gain career information from community stakeholders and learn how to plan and implement a community space.

IES planned and implemented workshops on February 6, 2018 and April 17, 2018 as part of the Community Space Building event. IES invited guest speakers including Jennifer Henninger (City Planner, City of Sheridan), Shawn Wissel (Trails and Natural Open Space Manager, South Suburban Parks and Recreation District), and Cyndi Wright (Chief Operations Officer, Sheridan School District No. 2) to talk with students about their careers and how they work with diverse stakeholders to achieve desired goals for community projects. Students also helped plan the new community space and enjoyed the

creative aspects of the workshops, such as rock painting for the community space rock gardens.

2. Implement a community space building day to install an inviting space where Sheridan residents can enjoy the outdoors and that Sheridan School District No. 2 can use for outdoor education.

IES planned and implemented a community space building day on May 18, 2018, where students, IES team members, and volunteers installed the following:

Native plants (Total: 34)

- 2 bur oak
- 3 catalpa
- 20 hummingbird flower
- 5 silver buffaloberry
- 4 Woods' rose

Features

- 2 bat boxes
- 2 mason bee houses
- 2 rock gardens
- 1 light pole
- 85 feet of trail

FLN students helped install a solar light and plant several catalpa at the community space site on May 18, 2018

Students completed the installation of all construction elements of the project, and collaborated to install fence posts, dig out spaces for the rock gardens, and add mulch to the new trail. South Suburban Parks and Recreation District (SSPRD) staff members were helpful in planting the large heavy trees, as the use of their heavy equipment made it easier for students to place them. Students participated in a banner installation by hanging the banner along the fence next to the site. The banner was based on the design elements discussed during the second fall workshop.

3. Plan and implement a three-year maintenance program to water, mulch, and weed the site with FLN students and IES Tree Steward Volunteers to establish plants and grasses.

This objective is still in progress. Students visited the site and watered and mulched planting sites, weather permitting, during the school year. IES Tree Stewards cared for the sites along the Sheridan Quincy Trail during the summer of 2018. This schedule will continue for the next two years of site maintenance.

4. Evaluate the project and create project reports and informational videos with feedback to stakeholders on improvements for future projects.

The IES videographer, Jesse Johnson of IOTK Media, captured the workshops, planting days, and community space building day on video. Mr. Johnson will edit and put together two videos, one long and one short, to share with the community and stakeholders. This report includes details regarding the planning and implementation of the project, project evaluation, and future recommendations. Tree Project team members have met with stakeholders to discuss successes and determine areas of improvement. IES will incorporate stakeholder recommendations into future planning for the SQT site.

Challenges

The 2017-18 Sheridan Quincy Trail project was a productive and successful program, despite considerable challenges encountered while meeting our objectives.

SQT Planting Plan and Site Facilities

The Tree Project team had to alter the original fall planting plan to include three shrub bands instead of four, changing the number of plants originally in the SQT planting plan. The original plan included more plants than could feasibly be installed during a single planting day. The final planting plan eliminated two of the proposed bands on the western edge, including a planned band of rubber rabbitbrush and a band of Woods' rose on the western end. Selected plants were also modified due to planting restrictions and shortages at the Colorado State Forest Service nursery. Final plants were selected based on their drought tolerance, lack of thorns, and availability.

FLN students installed a rock garden at the SQT site during the community space building day

The SQT site has hard, compact clay soil, which made it extremely difficult to dig holes for the planting and community space building days. During the first planting day, the IES team had SSPRD dig up bands prior to the planting day, which made it much easier for students to install plants. Due to easement restrictions along the trail and lack of infrastructure on school property, there is no irrigation on the planting sites, making regular watering and watering before planting days more difficult. All watering must be completed by hand using three 275 gallon tanks. The Tree Stewards also have a difficult task during the summer, and they put in many hours of hard work to complete all watering.

Fall Planting Day

While students helped IES meet the objective of planting 100 native shrubs, grasses, and flower seeds, there were a few issues regarding the timing and efficiency of individual activities throughout the fall planting event. Students needed more clearly defined roles and responsibilities from group leaders, and rotations between planting assignments were often not clear to students. The planting day did not include general explanations of how students would rotate through activities or complete their planting assignment, which would have been helpful in addressing any student confusion or questions. Students would have also benefited from an additional tool safety reminder before the event began. IES lacked additional volunteers to help supervise students, and volunteers in attendance were not briefed beforehand on assigned roles or addressing student behavior. Students also struggled with class paperwork and were confused about expectations from their teacher, Sharena Del Brocco, and IES team members.

FLN students installed two bat boxes during the community space building day

Community Space Building Day

The IES team and project stakeholders encountered several challenges while designing and implementing the community space building day. It was the first project of its kind that the IES Tree Project has undertaken, incorporating student participation into planning, construction, and installation of features like rock gardens, bat boxes, and a trail. As such, there were some unforeseen challenges that will help inform future community space projects along the Sheridan Quincy Trail.

The Tree Project team initially planned to install a shade structure with tables and benches. However, installation and planning for these elements required additional stakeholder review, potential permitting, and site preparation, which would have created other issues with the project timeline. Stakeholders and Tree Project team members agreed to consider incorporating the shade structure, tables, and benches into future plans.

For the day of the event, the IES team had a skeleton plan for activities and tasks to be accomplished. The team would have benefitted from having specific team member assignments to specifically designate what would be done, when it would be done, and by whom. Activities were delayed by the late delivery of plants to the site, and no port-a-potty was present due to miscommunications between SSPRD and the port-a-potty company. Similar to previous planting days at the site, more volunteers would have helped with completing all project activities, proper planting of all trees and shrubs and managing students. In addition, the bee houses and rock gardens required more steps or different methods to install than originally planned, leaving more work for IES team members to be done after the event.

Workshops

The second community space building workshop did not run as smoothly as previous workshops because of Sharena Del Brocco's absence. The Tree Project team was still able to meet workshop objectives due to a strong, established relationship with students and a well-planned lesson.

Vandalism

Between June 13, 2018 and June 16, 2018, a serious act of vandalism occurred along the Sheridan Quincy Trail that impacted past and recent plantings in the 2017 - 2018 and 2016 sites. A riding lawnmower was driven through the planting site. Many of the shrub bands were seriously damaged, including the rabbitbrush, mountain mahogany, leadplant, saltbush, Woods' rose, and three-leaf sumac bands. Stakeholders were contacted immediately, and an official police report was filed. The IES Tree Project, COS, and SSPRD are currently developing a plan to deter future acts of motorized vandalism along the trail. IES team members and Tree Stewards will continue to water the affected plants throughout the summer and fall of 2018.

An example of the vandalism impacting the leadplant shrub band at the SQT site

Recommendations

SQT Community Space Plan

Julia Dullien, University of Colorado Denver Master of Urban and Regional Planning (MURP) student, developed community space design ideas and recommendations for the Sheridan Quincy Trail sites for her spring 2018 capstone project. Below are some examples of recommendations from her report that IES may consider in future projects:

- Focus on do-it-yourself mentality that fits into non-profit capacity.
- Incorporate elements to make the trail more bike-friendly and create more opportunities for bike use along the trail.
- Install fixtures such as trash and recycling receptacles and dog waste stations.
- Focus on interventions to improve runoff conditions and reduce channelization along the trail through structures such as Zuni bowl rock pads, rock channels, rain gardens, and log drops.
- Encourage beautification of existing structures such as the chain link fence and paved trail through student

decoration.

- Install more consistent, unified signage to draw people into the trail and make it a more inviting space.
- Create more cohesive entrances at South Irving Street and South Federal Boulevard to reduce confusing signage and parking.
- Place barriers, such as boulders and logs, at the Irving Street entrance to deter vehicle use on the trail while still allowing storage and parking for utility and construction vehicles.

Planting Days

More volunteers are needed to supervise students and facilitate smoother transitions between activities during the site planting and building days. Volunteers should be briefed prior to future events on their roles and how to handle potential student behavioral issues. Clear explanations and expectations should be given in future planting days regarding supplementary student paperwork and how this will tie into students' grades and participation. IES should ensure that students and volunteers could plant the number of plants as planned during the allotted time for an event.

Community Space Building Day

The new community space installed on May 18, 2018 offers many opportunities for expansion and continued work for the IES team, associates, and stakeholders along with FLN students. Fixtures that were originally incorporated into the community space plan, including a shade structure and benches, are planned for future community space projects.

IES would benefit from directly contacting delivery services, including port-a-potty companies, to reduce miscommunications and ensure deliveries are done in a timely manner for any future events on the Quincy Trail. IES members could call a week before the delivery is planned to ensure there is no confusion regarding when and where to deliver items.

Due to the hard, compact soil at the site, IES would benefit from giving SSPRD a deadline to visit the site and dig holes a week prior to a planting event. While pre-digging holes on site the morning of the event ran smoothly, allowing more time in the future could help IES team members and stakeholders mitigate potential issues.

A FLN student displays two rocks she painted at the second spring workshop for the community space rock garden

Workshops

An emphasis on equal group sizes would be beneficial, since one group was significantly larger and one was significantly smaller in the first fall workshop. Equal groups would allow more participation and discussion within groups.

An IES team member can lead an interactive icebreaker activity with the students at the beginning of each workshop for a couple of minutes, allowing other IES team members to focus on setting up the modules.

IES should reschedule workshops if Sharena Del Brocco is not going to be in the classroom. While the workshop with the substitute teacher ran smoothly, students were not as involved and focused as when Ms. Del Brocco is in the classroom.

Vandalism

Since future vandalism cannot be foreseen, the recommendation to deter future incursions along the trail and project materials is to complete the proposed vandalism action plan with the City of Sheridan and SSPRD. IES should continually monitor the site to ensure that the current measures are working and re-evaluate the plan as needed. Future actions may include adding more protective fencing and collapsible bollards, installing more

lighting or cameras along the trail, or placing signs with phrases such as “do not walk on the grass” or “this site is being monitored.”

Plans for Printing, Binding, and Distributing this Report

This report will be available electronically via the IES website, www.i4es.org, through its publications login. A limited number of printed and bound copies will be distributed to project stakeholders. If you would like a printed copy of the report, please email Solutions@i4es.org.

Appendices (available on request and at the IES website, www.i4es.org)

A. 2017-2018 IES Tree Project Steering Committee Meeting Agendas
B. Fall 2017 Project Plan
C. Spring 2018 Project Plan
D. Banner Design
E. DesignWorkshop Project Plan
F. Fall 2017 Planning Meetings Agendas
G. Workshop One Outline and Modules
H. Workshop One Photos
I. Workshop Two Outline and Modules
J. Workshop Two Photos
K. Fall 2017 Planting Plan, Agenda, Students Worksheets
L. Planting Day Photos
M. Banner Concept and Design
N. 2018 Community Space Meetings Agendas
O. Workshop Three Agenda, Worksheets, and Photos
P. Workshop Four Agendas and Photos
Q. 2018 Spring Community Space Planting Plan
R. 2018 Spring Community Space Building Day Agenda and Photos