

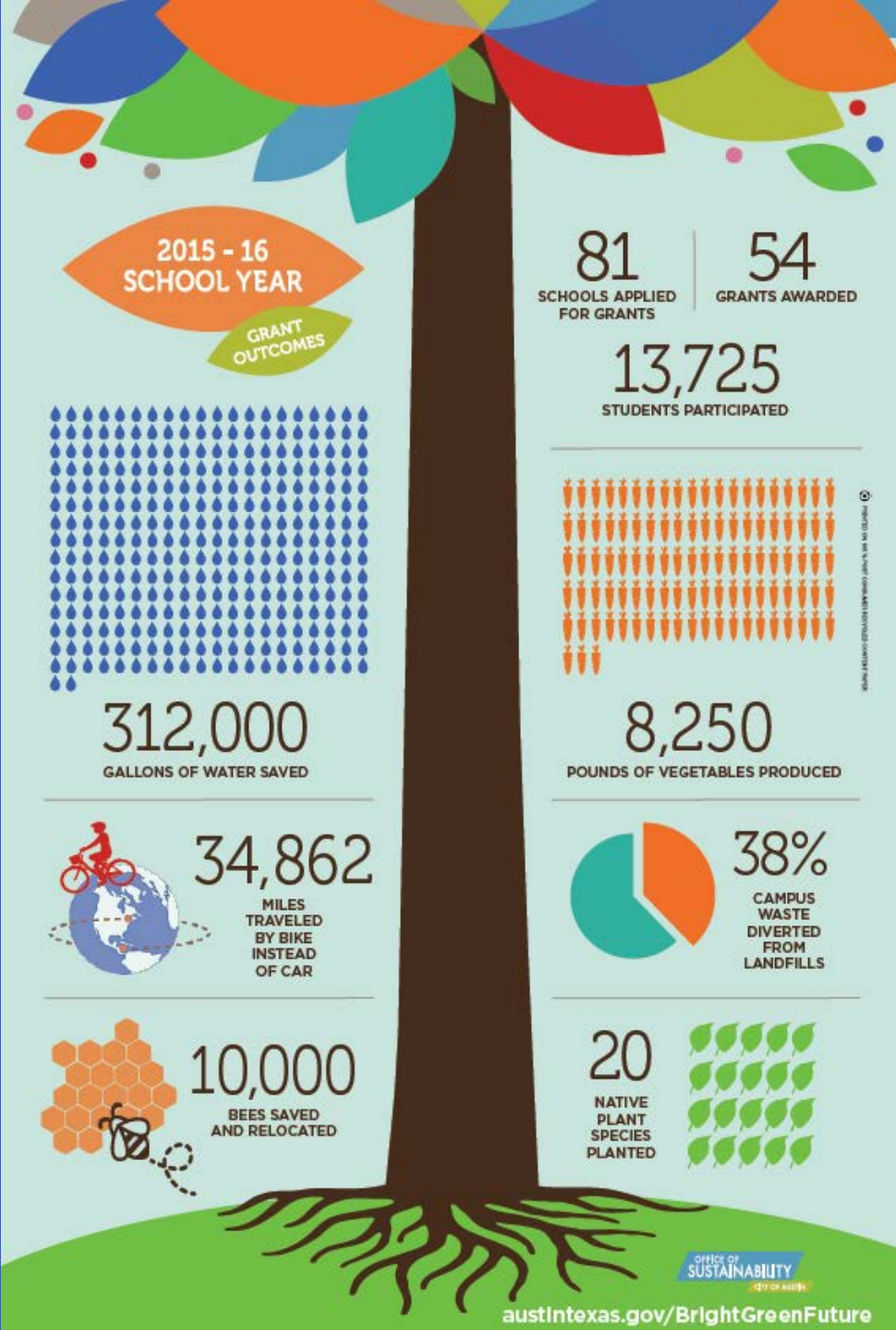


# OUTCOMES REPORT

School Year 2015 - 2016

# BRIGHT GREEN FUTURE GRANTS

2015-2016 School Year





## GRANT FUNDING PROVIDED BY:

Austin Resource Recovery  
Watershed Protection Department  
Austin Transportation Department  
Public Works Department  
Office of Sustainability



projects that protect water quality





*“This project did two things – it stopped the water from washing away the dirt and it waters the trees.”*

– Daniella, a student at Bryker Woods Elementary School

**Project Name:** Rainwater Harvesting System

**School:** Bryker Woods Elementary School

**Funded By:** Watershed Protection Department

**Project Description:**

Bryker Woods Elementary School is home to several great heritage oaks, but over time, flooding had caused severe erosion on campus. Rain gutters were installed to alleviate the flooding and erosion issue, but this solution cut off water supply to the trees.

With funding from a Bright Green Future Grant, students at Bryker Woods installed a water tank to capture rain. Rainwater is channeled from the tank to soaker hoses that water the trees and other vegetation. In addition, sunken gardens were constructed around the base of the heritage oaks to provide additional water to the roots so that the trees will thrive.



*Bryker Woods students show their appreciation to the Watershed Protection Department.*



*“It’s cool that we won’t be wasting water that we could use to water our gardens.”*

– Jay, a student at Clifton Career Development School

**Project Name:** Clifton Rainwater Collection

**School:** Clifton Career Development School

**Funded By:** Watershed Protection Department

**Project Description:**

Bright Green Future Grant funding supported a project to design, purchase, and install a catchment system that harvests rainwater from an existing 3,500 square foot building at Clifton Career Development School. The project also helps ease the stormwater runoff burden on the Colorado River and Edwards Aquifer.

Rainwater is captured from the roof of a metal barn on campus and stored in a 2,500-gallon storage tank. The water is then transported via an inline electric pump and drip irrigation lines to an adjacent garden, fruit orchard, and turf grass project, as well as a planned gourmet mushroom cultivation project.

The project was completed in May, 2016.



*Just some of the plants that benefit from Clifton’s new rain water catchment system.*



*“That area of the school used to be scary and gross, but now it is pretty cool to walk through and see the plants and animals”*

– Derek, a student at Covington Middle School

**Project Name:** Native Texas Plants and Animals

**School:** Covington Middle School

**Funded By:** Watershed Protection Department

**Project Description:**

Covington Middle School solved two problems with one solution and transformed an overgrown, unused area into a sustainable pathway.

Problem one – erosion from flooding. Planting native plants along a pathway helps control surface water run off and provides year-round access to the school’s nature and wildlife habitat.

Problem two – frequent drought conditions and hot temperatures. With extreme weather patterns becoming the norm in Central Texas, this project provides a more consistent supply of water to the native plants and wildlife on the school grounds.

Covington Middle School’s native plant and animal trail was completed in June 2016.



*Bees and other wildlife have benefited from Covington’s makeover.*



*“This project has the potential to address issues that have plagued this campus for decades.”*

– Diana McMillan, a teacher at Mathews Elementary School

**Project Name:** Water Catchment – Godzillas Go Green

**School:** Mathews Elementary School

**Funded By:** Watershed Protection Department

**Project Description:**

Recognized as an Eco-School, Mathews Elementary is expanding efforts to provide outdoor educational experiences for students.

In the process of relocating vegetable gardens, adding a pond, and creating a pollinator garden on the Mathews campus, students realized they needed to identify a means of providing water to these areas. A Bright Green Future Grant funded Mathews' creative solution to use rainwater for watering. Water catchment – Godzilla style – captures rainwater from the roof through a series of gutters and pipes and stores it in a large rain barrel.

Mathews Elementary began installation of the system in September, 2016.



*Rainwater collected from the roof will water garden beds at Mathews Elementary School.*





*“This project will not only benefit the school, but the community as well.”*

– Cindy McKittok, a teacher at Sunset Valley Elementary School

**Project Name:** Solar Powered Rain Harvesting

**School:** Sunset Valley Elementary School

**Funded By:** Watershed Protection Department

**Project Description:**

A Bright Green Future Grant supported this project to help educate students and the neighboring community about solar power, water conservation, and climate change.

Classes at Sunset Valley Elementary will learn about rainwater collection and water conservation using a rain cistern. Students will work together to install a solar panel kit that will pump rainwater from the harvesting tanks to the school's gardens. And to monitor and reduce water use, Sunset Valley will re-use the collected water in 'Treegators' to water new trees on campus.

As a Title I AVID (Advancement Via Individual Determination) campus, part of the school's mission is to prepare students academically and socially for college. This project helps support AVID goals by giving students exposure to tangible actions that reduce impacts due to climate change, as well as potential sustainability career path options.



*Sunset Valley's solar-powered rainwater harvesting system will be both functional and educational.*



*"I wanted to make a difference for other kids affected by hunger and food insecurity."*

– Ian McKenna, former student at Sunset Valley Elementary School

**Project Name:** Hacienda Community Giving Garden

**School:** Sunset Valley Elementary School

**Funded By:** Watershed Protection Department

**Project Description:**

When he was only eight years old, Ian McKenna decided to help kids less fortunate than himself. After some of his classmates were teased that "Santa didn't like poor people, and it was their own fault they went to bed hungry," he decided to do something.

With funding from a Bright Green Future Grant, Ian started the Giving Garden at Sunset Valley Elementary School. Organic fruits and vegetables are grown there and distributed to families in need. To date, Ian and his classmates have provided food to over 50 families.

The program also holds cooking demonstrations, teaches about healthy eating habits, and shows people how to prepare produce grown in the garden.

KXAN featured Ian's story in February 2016:

<http://kxan.com/2016/02/04/local-kid-starts-gardens-to-donate-fresh-food-to-families-in-need/>



*Ian McKenna accepts a Bright Green Future Grant for Sunset Valley Elementary School.*



*“Installation of the rain garden is only the beginning and not the end of this project.”*

– Phillip Egan, Changing Expectations

**Project Name:** Rain Garden Maintenance

**School:** Gus Garcia Young Men’s Academy

**Funded By:** Watershed Protection Department

**Project Description:**

Gus Garcia Young Men’s Academy and Bertha Sadler Means Young Women’s Academy partnered together to develop a community outreach and maintenance plan for the rain gardens installed last year with Bright Green Future Grants funding.

Students wrote and developed outreach materials such as brochures, flyers, door hangers, and posters to inform the community about their rain garden project.

This project was installed to benefit the community, and students worked diligently to inform the public about all that it offers, as well as the hard work involved to maintain the rain garden.



*Informational material used to educate the community about rain garden maintenance.*



cycle academies



*“The City of Austin has a goal to increase trips made by bicycle by 2020 for both transportation as well as environmental concerns.*

*This project will help achieve that goal.”*

– Christopher Stanton, Director of the Ghisallo Foundation

**Project Name:** Cycle Academies

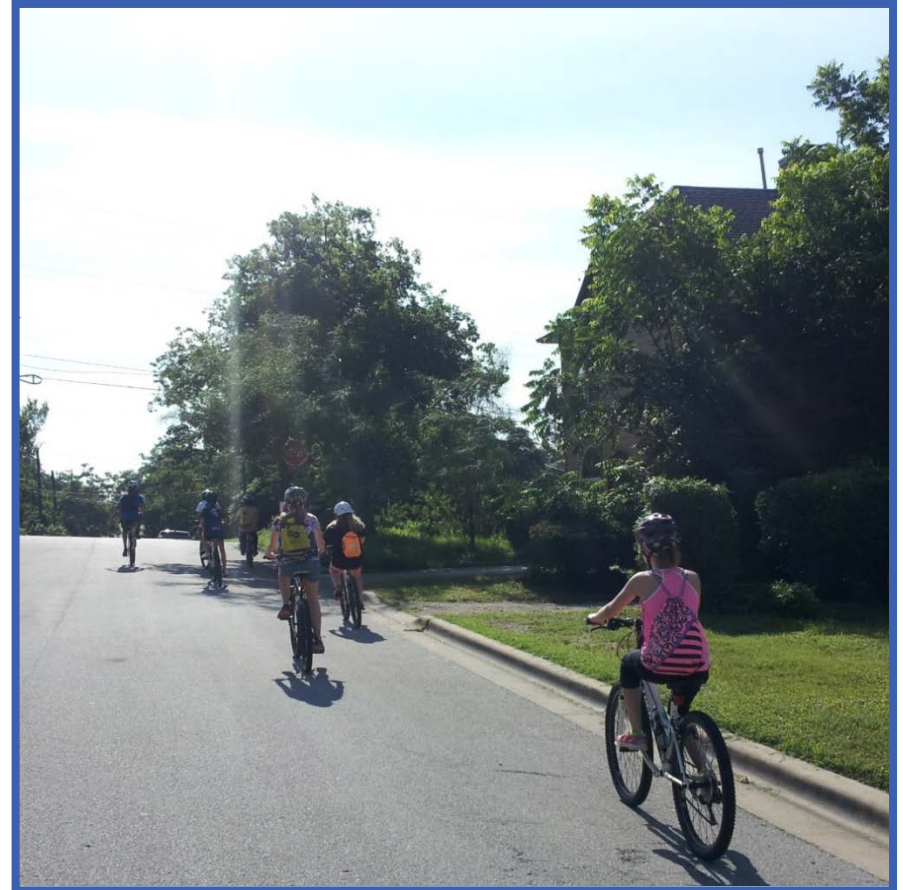
**Funded By:** Austin Transportation Department

**Project Description:**

Cycle Academy is a structured educational program geared toward youth cyclists that concentrates on teaching bicycle riding, safety, and maintenance skills. The program focuses on learning by doing, self-sufficiency, developing a healthy lifestyle, and community service. The curriculum is split into discrete education modules that track individual student achievement and measure progress in becoming subject matter experts. The goal is to develop youth cyclists to become teachers within their peer groups and families.

Students develop a well-rounded lifestyle and become recreational cyclists through a culture of ridership at schools. The aim is to create cyclists who not only use their bicycle for fun and recreation, but as a viable transportation option as well. Students acquire safety skills and learn to teach others to be safe as well. Encouraging bicycle transportation reduces carbon emissions produced by motor vehicles, improves air quality, and reduces resource utilization.

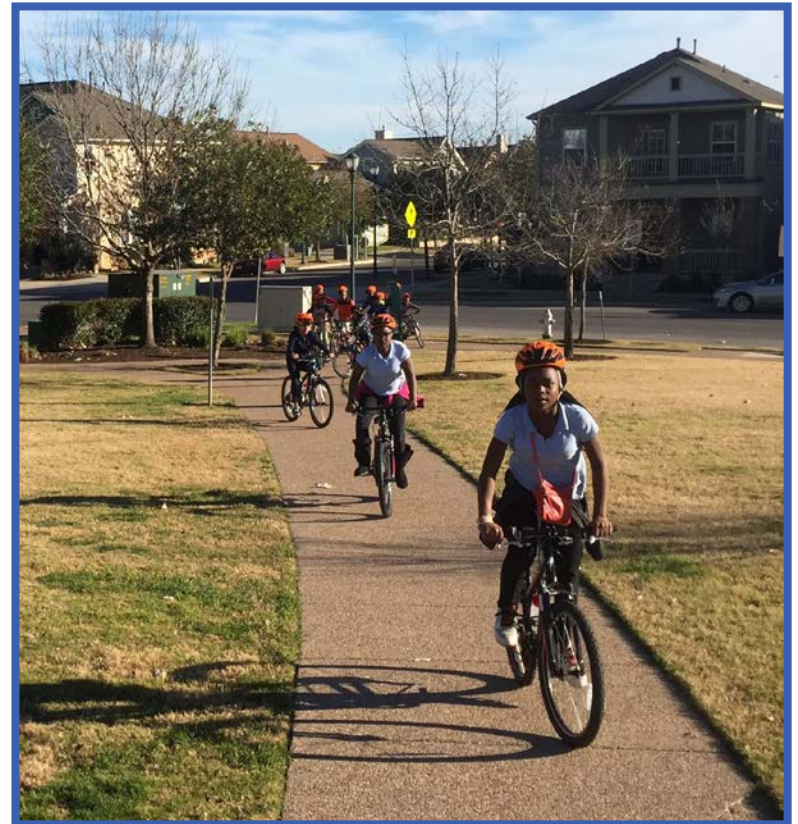
This year, eight cycle academies at elementary and middle schools were funded by Bright Green Future Grants.





*"I hadn't ridden a bike since I was little and I forgot how much fun it can be."*

– Desiree, a student at Kealing Middle School Cycle Academy



*"If you know the rules of the road, it isn't scary to ride near the cars. But you have to pay attention."*

– Geneva, a student at Dobie Middle School Cycle Academy



*"My favorite part is when we would do the obstacle course."*

– Bianca, a student at Reilly Elementary School Cycle Academy



*"My mom told me she rode her bike everywhere when she was a kid."*

– Irma, a student at Mendez Middle School Cycle Academy



*"We got to ride to where the Mayor works."*

– Landon, a student at Metz Elementary School Cycle Academy



*"I never rode my bike across the lake before!"*

– Bernadette, a student at Perez Elementary School Cycle Academy





*"It was really fun riding with a big group."*

– Daniel, a student at Widen Elementary School Cycle Academy



*"The class was fun because when it rained real hard, we just brought our bikes to the gym."*

– Anthony, a student at Zavala Elementary School Cycle Academy



bike repair 101



*“The average vehicle in the US produces 432 grams of carbon dioxide per mile driven and takes far more natural resources to produce than a bicycle.”*

– Christopher Stanton, Director of the Ghisallo Foundation

**Project Name:** Bike Repair 101

**Funded By:** Public Works Department

**Project Description:**

Bike Repair 101 provides materials and training at schools for students to learn how to perform basic and preventative bicycle maintenance. The program allows students to have safe and functional bikes to ride to school, and also helps keep bikes that can be refurbished or repaired out of the landfill. Students also learn about the environmental impact of motorized vehicles compared to bicycles.

Participating schools collect bicycles that are loaned to students; the students can also access the maintenance facilities. This program dovetails with the City of Austin’s efforts to design and install bicycle facilities that are accessible to novice and youth riders.

This year, Bright Green Future Grants funded five bike repair classes at local elementary and middle schools.





*"It was so cool to fix a bike  
someone threw in the garbage, and  
then ride it on the trails."*

– Dustin, a student in Burnet Middle School  
Bike Repair 101



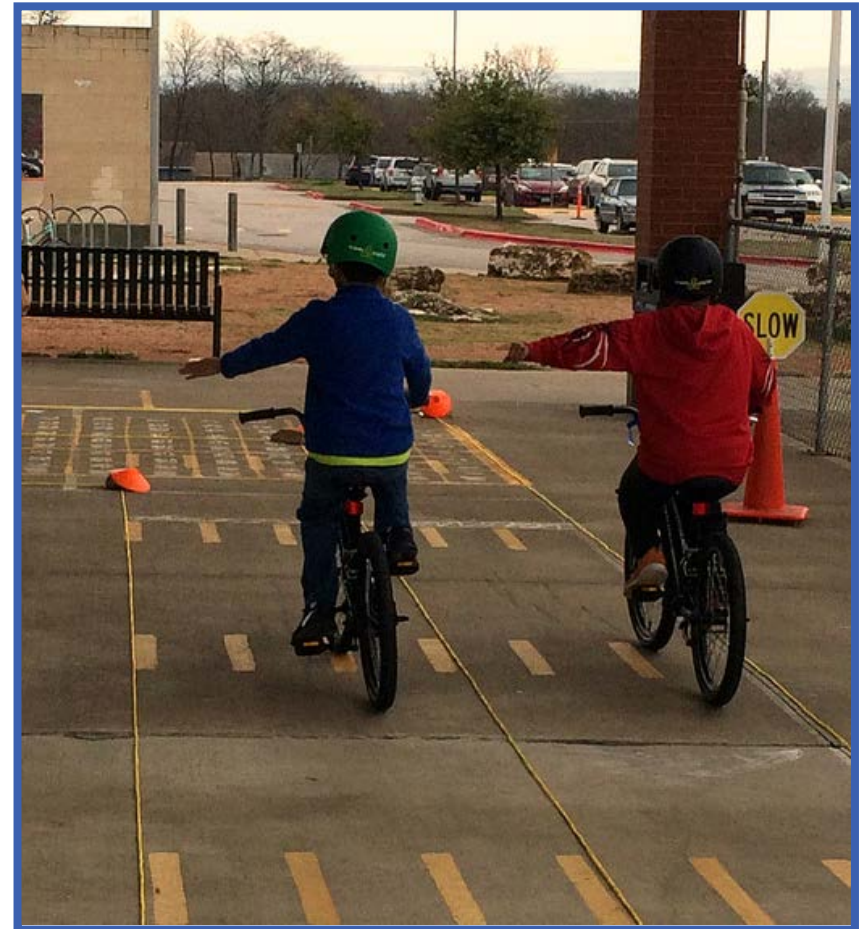
*"I like that I am learning to fix my  
own bike. Now I don't have to wait  
for anyone if it breaks ."*

– Damian, a student in Gullet Elementary School  
Bike Repair 101



*"I love this class because we learned to fix bikes and ride bikes and how to be safe."*

– Madison, a student in Joslin Elementary School  
Bike Repair 101



*"It would be bad if I got a flat, but now I can fix it myself."*

– Michael, a student in Maplewood Elementary School  
Bike Repair 101



*"It was fun learning to fix my bike with my friends."*

– David, a student in Langford Elementary School  
Bike Repair 101





**projects that minimize waste**



*"If properly cared for, the honey bee hive will easily pollinate around five acres of native plants for more than a decade."*

– Valarie Campbell, American Honey Bee Protection Agency

**Project Name:** BEEeducated

**School:** James Bowie High School

**Funded By:** Austin Resource Recovery

**Project Description:**

Under the guidance of the American Honey Bee Protection Agency (AHBPA), Bowie constructed a sanctuary for rescued bee hives, and learned how to maintain and care for the bees.

The project is unique because rather than killing already vulnerable populations of bees, AHBPA removed hives from unwanted locations (like the side of a home), and placed the hives onto the Bowie campus, so that students would be able to observe the life of pollinators in an urban setting where bee habitats are crucially needed.

In addition, the biweekly, AHBPA-certified BEEeducated course teaches the positive environmental impacts of local food sourcing, pesticide-free gardens, and compassion towards our honey producing friends.



*Bowie students don bee keeper apparel while tending the hive.*





*“We must increase awareness of the importance of recycling in order to modify behaviors on campus and at home.”*

– Amanda Mortl-Walker, a teacher at Eastside Memorial High School

**Project Name:** Zero-Waste!

**School:** Eastside Memorial & International High Schools

**Funded By:** Austin Resource Recovery

**Project Description:**

Eastside Memorial and International High Schools recognized the need for a zero-waste campaign after analyzing both schools' waste diversion rates. In September 2015, students studying Environmental Systems conducted a waste audit of the schools, which happen to share campus space. Custodians collected landfill waste from all classrooms and common areas (excluding the cafeteria and restrooms). The students sorted and weighed everything and then recorded the results. When all types of plastic were included, 82% of the waste these schools were sending to the landfill could have been recycled or composted.

At the conclusion of the project, Eastside Memorial High School reduced their landfill waste from 82% to 54%, and a Bright Green Future Grant made it possible for both schools to purchase additional recycling bins.

As a result of this project, on October 1, 2016, Eastside Memorial was recognized by the National Wildlife Federation as the first Green Flag High School in Texas!



*Eastside's mascot raises the National Wildlife Federation Green Flag over the school.*



*"The City of Austin has a zero waste goal by 2040, and Small Middle School has accepted the challenge of helping achieve that lofty goal."*

– Dr. Sherry Lepine, former teacher at Small Middle School

**Project Name:** Zero Waste Lunch Bunch

**School:** Clint Small Middle School

**Funded By:** Austin Resource Recovery

**Project Description:**

During a recent waste audit at Clint Small Middle School, it was discovered that one-third of students eat in classrooms as part of the "Lunch Bunch." Classrooms are not equipped to handle that volume of waste and do not separate waste generated from the cafeteria.

With new landfill/recycling bins costing more than \$500, the Zero Waste Lunch Bunch and the Green Building Class decided to design and produce their own receptacles. Reducing costs allowed more bins to be placed in other areas of need, such as lounges, the gymnasium, and common area wings of the school.

Promotional ads supporting the Zero Waste initiative were placed throughout the school, and Green Tech Academy reported a substantial increase in recycled materials placed in the bins.



*Small Middle School's Green Tech Academy teaches students about all aspects of sustainability.*



*"We have to stop littering. If we help the Earth, then the Earth will help us!"*

– Meseret, 2nd grader in Foundation Communities Summer Program

**Project Name:** Green and Healthy Kids

**School:** Foundation Communities

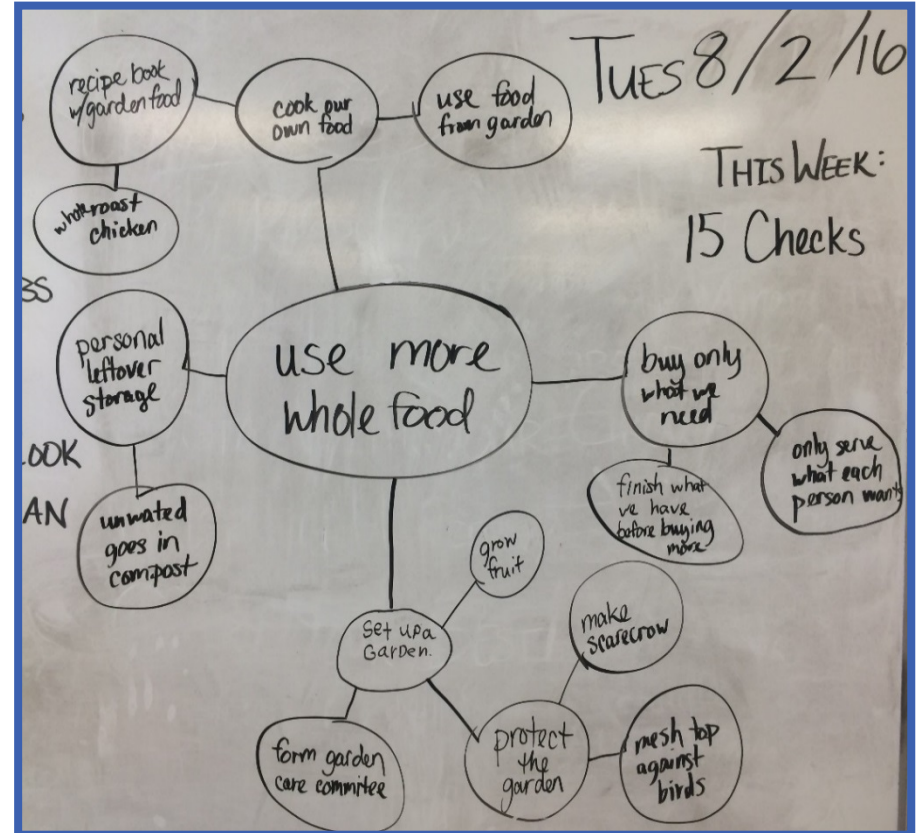
**Funded By:** Austin Resource Recovery

**Project Description:**

Foundation Communities is an affordable housing developer that provides homes to over 2,800 individuals and families in Texas. In addition to housing, on-site supportive services are designed to empower families toward stability and success. One way to accomplish this goal is through on-site community learning centers. These sites provide access to free afterschool and summer programs where families live.

The Green and Healthy Kids program was designed to equip children and, by extension, their families, with literacy that promotes sustainable habits and behaviors. Staff teach a variety of 30-minute lessons that help students recognize and modify certain behaviors, such as separating waste into different streams, turning off the lights when leaving a room, and eating a balanced meal. Fun and engaging activities encourage students to share the conservation and healthy education with their families.

A Bright Green Future Grant provided funding for the program to be integrated into all seven learning centers in time for the Summer 2016 session.



A Green and Healthy Kids session on healthy and sustainable food.



*"People have got to stop being so lazy and not just throw things away because it is easy. I don't want to grow up in a planet full of trash."*

– William, a student at Sunset Valley Elementary School

**Project Name:** Zero Waste Green Team

**School:** Sunset Valley Elementary School

**Funded By:** Austin Resource Recovery

**Project Description:**

The Zero Waste Green Team at Sunset Valley Elementary School has five key goals that are supported with funding from a Bright Green Future Grant:

- 1) **Analyze Waste Diversion:** The school performs a waste audit to evaluate current waste diversion efforts and identify ways to improve.
- 2) **Reduce Waste:** The school's Green Team implemented strategies to reduce the amount of paper sent home to families.
- 3) **Eco-stations:** The school purchased bins to create eco-stations in place of trash cans.
- 4) **Re-use/Recycle Center:** Sunset Valley will create a primary re-use and recycle center, which will serve as the zero waste hub for the school.
- 5) **Education:** A team of student leaders serve as the Zero Waste Green Team to help educate the rest of the student body.



Sunset Valley's "Green Day" educates students and parents about what it takes to be green!



*"I pay way more attention to my teacher when we have class outside."*

– Bianca, a student at Metz Elementary School

**Project Name:** Green Classroom

**School:** Metz Elementary School

**Funded By:** Austin Resource Recovery

**Project Description:**

The Green Classroom project at Metz Elementary School created a more diverse, interactive community space and habitat in the school patio area. Taking an overgrown area with little to no seating capacity, volunteers cleared the space and expanded it to accommodate two picnic tables constructed with repurposed wood.

This added flexible seating for academic work, as well as community space, shade, signage for vegetable and native plant beds, and additional flower beds to attract pollinators.

Metz hopes to add additional garden beds and bee hives in the future.



*Metz Elementary School students helped construct their outdoor classroom.*



*“Conventional gardening uses 90% more water than aquaponics. With our uncertain future, we must look for more ways to conserve water.”*

– Christine de la Torre, a teacher at Crockett High School

**Project Name:** Aquaponics Garden

**School:** David Crockett High School

**Funded By:** Austin Resource Recovery

**Project Description:**

Crockett High School constructed their Aquaponics Garden in May of 2015, and the garden became fully functional with a 2016 Bright Green Future Grant.

Located in a central courtyard that is a focal point for students and visitors, the greenhouse and outdoor classroom enhances the Crockett High campus and provides opportunities to incorporate nature and science into traditional education curricula. This area also encourages people to spend more time outside.

Using the Aquaponics Garden, Crockett plans to educate students and the local community about farming and gardening in Central Texas, where drought is occurring more and more frequently.

For more on the project, view their YouTube video at:

<http://youtu.be/6t0tOcVIURk>



*Crockett students are filmed for a story that was featured on the Central Texas Gardener.*



*“What a great idea, now I can wash my hands after working in the garden.”*

– Isabel, a student at Kealing Middle School

**Project Name:** Garden Wash and Grow

**School:** Kealing Middle School

**Funded By:** Austin Resource Recovery

**Project Description:**

Having successfully developed raised beds for vegetables and herbs, a small orchard for growing fresh fruit, and a community garden for neighbors who would like to garden, the students at Kealing Middle School decided to tackle rainwater harvesting and composting to support the garden. In 2015, the school completed both projects with help from a Bright Green Future Grant.

Students then asked the community what they would like to see in the garden. The unexpected answer was an area to wash the freshly harvested produce.

Proving the adage of “ask and you shall receive” Kealing installed multiple washing stations, so people can clean their produce before taking it home. The greywater from the wash stations is circulated back to the garden to irrigate plant beds.



*One of the garden washing stations at Kealing Middle School.*



eco audit projects





*The Office of Sustainability partnered with EcoRise Youth Innovations to provide funding for 25 EcoAudit projects.*

25 projects

1,165 students directly engaged

21,434 students impacted

Project themes:

**Water**

**Waste**

**Energy**

**Food**

**Public Spaces**

**Transportation**

**Air Quality**





## EcoAudit projects:

- **Austin Discovery School** – trash audit
- **Bertha Sadler Means Middle School** – solar energy charging station
- **Cedar Park High School** – recycling campaign, garden essentials
- **Crockett High School** – farm-to-table field trip
- **Cunningham Elementary School** – waste management
- **Eastside Memorial High School** – campus energy reduction
- **Eden Park Academy** – compost system
- **Fulmore Middle School** – urinals are the goal!
- **Hill Elementary School** – think before we throw!
- **Integrity Academy** – rainwater collection tank
- **Lamar Middle School** – waste for worms, energy blackout day, scottie water, waste watchers, energy stickers for saving
- **Mathews Elementary School** – trash to treasure!, grover's great waste clean-up
- **NYOS Charter School** – water savers, reducing waste and composting
- **Patton Elementary School** – monarch heroes, energy audits, battery drives
- **Small Middle School** – succulent garden motion faucets, food garden at Mills Elementary School



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