

It Is Easy Being Green

With Tucson Clean and Beautiful's help, Tucson residents are making the city cleaner and more beautiful by preserving, developing and protecting public desert neighborhood environments by reusing street stormwater to make the city greener and more inviting to flora and fauna.

Tucson Clean and Beautiful (TCB) project manager Jenny Moscato said natural systems, including trees and vegetation, create urban environments that bring communities together, cool the environment, slow traffic and improve air and water quality. The mini-grant projects achieve these goals, one Tucson neighborhood at a time. The projects assist nature by building and collecting previously wasted stormwater in landscaped traffic circles, parks, medians and curb and non-curb basins.

Why mini-grants?

Tucson Water adds a small conservation fee to city water bills that adds up to \$3 million per year. The fee is based on customer water use at a rate of 13 cents per hundred cubic feet per month. For the average Tucson water user, the fee is about \$1 per month. The money funds TCB program manager and engineers, public outreach and water education, capital improvements and includes \$45,000 in green stormwater mini-grants for each of Tucson's six council wards.

TCB also serves as the mini-grant projects' steward. The pilot project ran from 2017 to 2019 as the Neighborhood Scale Stormwater Harvesting

program, reborn as the Green Stormwater Infrastructure Mini-Grant program, which will run until at least 2022, when the mayor and city council can vote to renew the mini-grant project.

Want to apply for a green stormwater mini-grant? Visit Tucson Clean & Beautiful's website.
<https://tucsoncleanandbeautiful.org/trees-for-tucson/gsi-mini-grants/>

TCB outreach efforts include attending neighborhood meetings and community events and working with council ward personnel to publicize mini-grant opportunities for Tucson's public spaces.

"A lot of people don't understand green infrastructure, capturing rain and growing plants," said TCB Green Infrastructure Program manager Nichole Casebeer. TCB is "building trust and building relationships to get projects off the ground."

Neighborhood basins

Brian Ellis left New Jersey, where water was plentiful, for the Arizona desert. In 2016, he took a rainwater harvesting class, discovering that the process required more than just tanks. "That

was my lightbulb moment," Ellis said. "That class really opened my eyes." He refers to himself as a "water harvesting enthusiast," and is now volunteering with Watershed Management Group to help others install rainwater harvesting systems.

In 2019, Ellis discovered TCB and Moscato during a planting event. Moscato explained the mini-grant program. Ellis "hit the ground running," developing an idea to add stormwater collection basins at Ft. Lowell Park, but there was already a city 20-year project plan in place, so Ellis needed a new idea.

Ellis lives on East Kelso Street, where there are no spaces for stormwater collection basins. One street to the north, East Alta Vista, there was ample space between sidewalks and curbs for small desert stormwater-collecting basins. Ellis set his plan in

Find out if a TCB mini-grant project is located in your neighborhood using this app maintained by the City of Tucson. <https://volunteer-tcb.tucsonaz.gov/apps/tucson-clean-beautiful-volunteer-app/explore>

motion, submitted a stormwater mini-grant plan to TCB, walking door-to-door on the 5500 block of East Alta Vista gathering input and approval from neighbors. Moscato joined him.

At first some neighbors thought he was asking for money, while others weren't sure how the project would benefit them. Others didn't answer the door. "I had to work on my 30 second elevator pitch," Ellis said.

In October 2019, Ellis' submitted his project to TCB, which approved and created the site plan, hired landscaping contractors and obtained city council

support. Construction of the self-sustaining stormwater collection basins was completed in May 2020. (picture from 5500 block of East Alta Vista project, below)

The median

Jerry Natale has a background in construction and an interest in architecture. After completing a 250-foot rainwater harvesting and conservation project on his own property, he decided that the three medians on 29th Street between Pantano Parkway and Camino Seco, close to his home, needed an

overhaul. "The project was fundamentally self-serving," Natale said. "The right-of-way



Curb-adjacent stormwater collection basin, 5500 block of East Alta Vista, Tucson, AZ, Oct. 26 (Photo by: Denise Meeks, 2021).



In-street median planting project, 29th Street, between South Pantano Parkway and Camino Seco, Nov. 8 (Photo by: Denise Meeks, 2021).

had become desolate. The project would improve everyone's life." It was good for the neighborhood and "calmed traffic."

Like Ellis, Natale went door-to-door, contacting neighbors living along the quarter-mile proposed project area to obtain support and signatures.

Because 29th Street borders both Ward 2 and Ward 4, Natale submitted TCB requests to both council offices, but Ward 2 funds were already exhausted, so Ward 4 staff helped with the mini-grant application process. The project was completed in June 2020 for \$18,000. It includes 25 large native, low-water-use trees, 85 desert shrubs and prickly pear cactus. It uses gravity to route street stormwater onto the median's foliage.

In the first year, the city provided water three times per week for the large plants. Natale and his girlfriend attended to weeding. Later, neighbors provided five gallons of water per week for each large plant and two-and-a-half gallons of water for each small plant until the site became self-sustaining earlier this year. (picture from 29th Street project, below)

The pocket park

Barrio Centro extends between 22nd Street, South Country Club Road, Aviation Parkway and South Tucson Boulevard. Hidden in this neighborhood is a dirt lot owned by Tucson Water and marked by a small water well. Flowers and Bullets, a grassroots community organization dedicated to cultural heritage and social justice, is working with TCB to convert the vacant land into a "pocket park."

Logan Byers, who has a masters degree from the University of Arizona in landscape architecture, is the contractor hired by TCB to turn the space into a neighborhood garden. She's grading the land to use stormwater runoff to support native plants, including velvet mesquites, ironwoods, foothills palo verdes and desert



Landscape architect Logan Byers levels the pocket park at South Palo Verde Ave. and March Place, Nov. 11 (Photo by: Denise Meeks, 2021).

willows. The park should be completed in about a month. "Neighbors are going to do actual planting," Byers said. (picture from South Palo Verde and March Place project, below)

From dump site to neighborhood park

In the 1970s, Tucson had planned to make the vacant lot behind Mel Dominguez and Melissa Brown-Dominguez's home a park. Instead, the lot became an illegal dumping site for couches, drugs and garbage. Dominguez took out his video camera, recording the illegal activity. "I saw flooding and fire coming," Dominguez said.

For more information on environmental benefits of using green stormwater:
https://www.tucsonaz.gov/files/water/GSI_Proposal_Final.PDF

In March, 2014 the National Charity League provided 60 volunteers and a dumpster to remove the trash. When they left, the dumpster was full. But the couple, urban foresters trained by TCB at Tucson Botanical Gardens, and a few neighbors spent the next six years trying to clean up the lot.

They applied for a mini-grant and in 2020, the land was converted by TCB and Byers from a neighborhood eyesore into a green haven. Dominguez and neighbors removed buffelgrass. Social media efforts provided 30 volunteers to finish the new park, which now includes a mini-library, installed with the help of a local Girl Scout troop and Tucson Parks and Recreation.



Groves II Park at South Prudence Road and Poinciana Drive, Nov. 14 (Photo by: Denise Meeks, 2021).

“We’re taking back all these trees and learning how to prune the proper way,” Dominguez said. “It’s about identifying space that needs some extra help,” Brown-Dominguez added. (picture at South Prudence Road and East Poinciana Drive project, below)

Getting a minigrant

Tucson community organizations, neighborhood and non-profit associations and citizens can apply for mini-grants, which require utilizing stormwater runoff that would normally evaporate unused, flow into culverts, or be absorbed by unvegetated ground. TCB landscape architects and certified arborists then help community members implement green infrastructure.

Mini-grant applications are reviewed in March, June, and November by a rotating panel of judges consisting of landscaping professionals, city planners, Tucson Parks & Recreation, Tucson Department of Transportation and Tucson Water staff. Applicants propose how stormwater runoff will help their communities. Once approved, TCB takes over the project, soliciting bids from local landscape architects and contractors,

managing the project timeline, and assuring that applicants will care for the project until it is self-sustaining, which usually takes about a year.

The decision process also looks at tree equity areas, each of which has a tree equity score. The scores are based on tree canopy and social variables, including poverty rate, minority population, unemployment rate, percent of child and senior residents and heat severity index,

ESRI provides a map and information on Tucson Tree Equity Scores.
<https://uagis.maps.arcgis.com/apps/dashboards/9d6de6f1a56d41d9af16729a6208ed2f>

the difference between neighborhood ground surface temperature and Tucson average ground surface temperature. The score is converted into a priority index. The higher the index, the more vulnerable the neighborhood.

“We’re here to support our community groups and volunteers in cleaning up public spaces. We’re boots on the ground, empowering the community,” Casebeer said.

Sources

Logan Byers, Green Cloud Landscapes contractor, 520-808-1672,
logan@greencloudlandscapes.com, in-person at Palo Verde & March Place
pocket park intersection 11/08/21

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collection basins 10/26/21

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