

# City of Flagstaff Sustainability Section

## Neighborhood Sustainability Grants

### *FY18-19 Final Report Summary*

#### **“Construct ADA Accessible Universal Pathway and Expand Sustainability Garden” – General Sustainability Grant**

*Museum of Northern Arizona – Colton Community Garden*

*In partnership with Kinlani Dormitory and volunteers from Northern Arizona University, Master Gardeners, American Conservation Experience, and others*

The goal of this project was to make the Colton Community Garden (CCG) an interactive and welcoming demonstration garden with traditional food crops and native plants to showcase sustainable gardening practices.

#### Accomplishments:

- 6 public events with hundreds of community members in attendance
- Constructed a wheelchair path through the garden
- Built garden structures from repurposed materials including:
  - Various types of garden beds with one wheelchair accessible bed
  - Season extenders
  - Potato tire tower
  - Zuni waffle garden
  - Gourd tunnel
  - Compost bins and vermiculture farm
  - Shade structure
  - Water feature with a solar fountain

#### Expenses:

Pathway materials - \$918.91 (budgeted \$1164)

Bed materials - \$557.11 (budgeted \$311)

#### Next Steps for the Colton Community Garden:

- Continue to provide hands-on educational opportunities with the living demonstration garden to multiple generations, ability levels, cultures, and interests
- Seeking partnerships with MNA Discovery Camps, Peaks Senior Living Community, local schools
- Create interpretive signage for each of the new garden features



*Above: Wheelchair path prior to final compaction with flagstone edging. Below: Constructed beds on July 13, 2019. (Jan Busco, MNA)*

**“Straw Free Flagstaff”** (previously “Flagstaff Doesn’t Suck”) – General Sustainability Grant

*The Azulita Project*

*In partnership with City of Flagstaff Master Recycler volunteers*

*Participating businesses: Altitudes Bar & Grill, Annex, Karma, The McMillan, Fat Olives, Criollo, Café Daily Fare, Lia Leaf Teahouse, Pizzicletta, Salsa Brava, Shift, Stronghold, Square Root Burger, Toasted Owl Café*

The goal of this project was to spearhead a campaign to help Flagstaff’s business community become more environmentally sustainable by reducing the consumption of single-use plastics.

Accomplishments:

- Worked with 14 businesses in the Flagstaff area who were provided:
  - Branded materials for marketing
  - Training for managers and employees
- Developed a Straw Free Flagstaff [webpage](#)
- Gathered feedback from business owners to improve future strategies for implementation

Expenses:

Printed materials - \$1,243.62 (budgeted \$1,980)

Sample metal straws - \$200 (budgeted \$0)

Next Steps for Straw Free Flagstaff:

- A business forum has been created and taken over by local business owners to ensure the campaign has a long-lasting impact
- Developing a partnership with Discover Flagstaff to market the campaign to tourists
- Worked with Mountain Sports to get a Patagonia Action Works grant that would fund a part-time Programs Manager who would oversee the Straw Free Flagstaff campaign
- Currently designing an internship to help oversee the campaign



Above: Green NAU and Master Recycler Training at NAU. Below: Volunteer Darren joining participating businesses at AZ Trail Days.

*Highlights from the Straw Free Flagstaff kit given to businesses:*



## “Precious Plastic Recycling Thesis Project” – General Sustainability Grant Tyler Linner

This project was for a Master’s thesis within NAU’s Sustainable Communities program. The goal was to identify and prototype plastic parts to be used to reduce the cost of small-scale recycling machines, considering Flagstaff’s inability to recycle most plastic materials.

### Accomplishments:

- Won Flagstaff’s Innovate Waste Challenge which funded his new business (with partner Fran Alvarado), Praxis Waste Solutions
- Presented prototype clipboards made from recycled sleds to City Council
- After facing many difficulties with the extruder that was purchased, shifted focus to diverting waste at 16 events in Flagstaff

### Expenses:

Precious Plastic Extruder - \$2000 (budgeted \$2000)

### Next Steps for Praxis Waste Solutions:

- Continue research with the Precious Plastic Extruder and eventually scale up to industrial recycling machines to offer in-house recycling/manufacturing
- Talking to Nackard Bottling Company about reducing their waste in operations
- Seeking partnerships with Resinate Remanufacturing out of Phoenix to process plastic waste that was already collected
- Considering taking over the rain barrel distribution program from City of Flagstaff Water Conservation
- Pursuing future funding from the Rural Community Assistance Corporation (RCAC)



*Above: Tyler Linner holding pelleted plastic from broken sleds for repurposing. Below: The Precious Plastics extruder.*



*The Praxis Waste Solutions team with the broken sleds and the finished product, clipboards.*



## “Flagstaff City Hall Landscape Conversion Pilot Project” – Water Conservation Grant

### *Terra BIRDS*

*In partnership with Ponderosa High School, Coconino County Accommodation School District, Coconino County Juvenile Detention Center, Marshall Elementary School, City of Flagstaff Water Services and Parks & Recreation*

This project was intended to make tangible progress on a City vision to transition the City Hall South lawn from an irrigation intensive turf landscape to a low water native grass and wildflower meadow by hiring and training local youth and community members. The purpose of this project was to prove the feasibility of the concept, demonstrate the aesthetics to the public, and work out best practices for the transformation of the remaining City Hall landscape.

#### Accomplishments:

- Converted 2,000 sq. ft. of lawn into meadow that will save about 124,967 gal. of water per year
- Education topics including:
  - Urban habitat restoration specific to Flagstaff
  - The role of native landscaping in water conservation
  - Composting yard waste and its uses in home landscaping
- Provided 3 weeks of employment for 8 youth, 3 additional weeks for 3 of those, and 5 weeks of community service for 8 additional youth
  - Many of these youth are at-risk, and the job opportunity provided them with a resume builder and positive references for future job searches
- 3 community workshops and 2 work/learning sessions with Marshall Elementary



*Above: Turf removal with youth interns. Bottom left: Pilot project area, before. Bottom right: Pilot project area, after.*

#### Expenses:

Supplies and tools - \$2,381.92 (budgeted \$1,750)

Plant materials - \$1,659.81 (budgeted \$2,800)

Travel, incidentals, accounting - \$971.27 (budgeted \$463)

#### Next Steps for Terra BIRDS:

- Planning additional lawn conversions, pending City Council approval

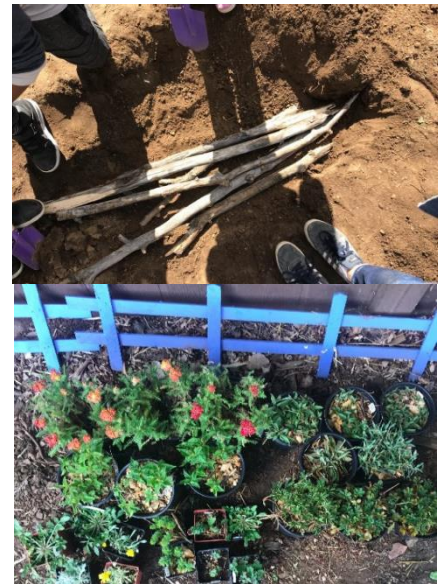
## “Water Conservation at Killip Elementary School” – Water Conservation Grant Killip Elementary School

*In partnership with FoodCorps, NAU Sustainable Communities, University of Arizona Cooperative Extension, local businesses, and others*

The goal of this project was to share the successes of the Killip Elementary school garden and make improvements to the garden to align with the City of Flagstaff Water Conservation Strategic Plan.

### Accomplishments:

- Presented at the Green Schools Conference in St. Paul, Minnesota and attended 8 different sessions covering:
  - Water conservation as a design tool and a district attitude
  - Student-driven energy evaluations
  - Physical space as a learning tool
  - Place-based and community-driven education
  - Zero-waste public schools
  - Plant-based cafeteria meals
- Installed water flow meters to track water usage in the garden
  - Water usage from 5/22-6/27/19: 500 gallons
- Installed a native plant rain garden



*Above: Hugelkultur bed, which is a type of native plant rain garden. Below: Native plants from The Arboretum.*

### Expenses:

Conference travel - \$330 requested  
Flow monitor - \$156.63 requested  
Plant materials - \$150.00 requested

### Next Steps for Killip Elementary’s school garden:

- Incorporate irrigation and water catchment
- Increase water conservation and native plant education
- Continue community collaborations around water conservation



*Left: Students transplanting during recess. Right: Completed rain garden area.*