

The Habitat Gardens at  
Sawmill Multicultural Art and Nature County Park

2020 Accomplishments and Plans for 2021



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## 2021 Summary

The 2021 gardening season (April 1 – October 30) was a great success! More visitors than ever appeared, and they stayed longer. The number of regular visitors and volunteers grew, enhancing our shared sense of community. American Conservation Experience (ACE) members worked alongside us throughout the growing season, always arriving at the gardens ready to work hard and have fun while doing it. Eagle Scout candidates initiated, completed, and maintained projects that would not have happened any other way. Volunteers contributed at least 1,432 hours, not counting those of long-time volunteer Norm Lowe and totals from some Scout projects. As always, The Arboretum at Flagstaff was a helpful partner, providing us with plants and advice, while the Coconino Master Gardeners Association included us in their activities and publicized our volunteer program on their blog. The Willow Bend Environmental Education Center Board of Directors honored us with a delightful reception featuring a string octet, which revealed the remarkably fine acoustics of the Ponderosa Ramada.

Although spring was typically dry and windy, we were able to sustain the gardens even before the reclaimed water was turned on this year, using rainwater captured in the tanks which Norm Lowe had restored to full functionality. To our relief, the summer rains were abundant and the gardens flourished. Volunteer Lynn Chandler kept the birds fed and the feeders clean.

This report will be briefer than in the past because most of the gardens are now thriving and require only ongoing maintenance. The exceptions are the Lizard Garden, the Pond, and the Seasonal Wetland.

### *Eagle Scout projects:*

- Made substantial improvements to the Garden Shed including a solar panel and shelving;

- Tilled compost made on-site into the Native Heirloom Garden, together with organic soil amendments;

- Amended the soil, repaired the rock borders, and planted the Kitchen and Herb gardens.

*Coconino County:* A dozen County employees volunteered on Earth Day, April 22. They weeded and spread wood chips between the parking lot and Sawmill Road as well as in the aspen area.

*NAU:* First Generations students and Blevins Scholars (graduates of foster care systems) began their semester with a volunteer day in the gardens. Such inspiring, hardworking young people!

### *Garden Volunteers:*

- Wrote and managed production of interpretive signs: two for the Orientation Kiosk, one for the Viewing Platform, one for the Outdoor Classroom, and 17 for each garden and feature.

- Co-taught a workshop on "Gardening for Wildlife" with a representative of the National Wildlife Federation. NWF representative spoke indoors about general principles. We gave a tour of the gardens with specific advice on microclimates, plant selection, and use of plants by wildlife. We are scheduled to repeat this program on May 21, 2022. The NWF representative requested plant lists for local microclimates, which we will provide.

Norm Lowe attempted to modify the irrigation system to provide reclaimed water to the western side of the gardens, mainly the Lizard Garden hill. This resulted in a bad leak from a break elsewhere in the system, which flooded the aspen area and parking lot. CCPR's Geoffrey Gross has offered to address the need for reclaimed water as he rebuilds the Pond and Seasonal Wetland. In the future, garden volunteers will not interfere with the old irrigation system.

### Plans for Winter of 2021 and 2022 Gardening Season

1. Interpretation: Develop online content for the interpretive signs. Post wildlife observations from trail cameras (work with Geoffrey on where to put cameras and with Moran on interpretation). Continue working with Jeff Balmat to share weather station data with the National Weather Service and the public.
2. Volunteer Program: a) Our volunteer group needs a new name to indicate that the gardens are part of Sawmill/Archuleta County Park. We would like to consult with CCPR about this. b) We held our first, end-of-year potluck for volunteers. We hope to add special group projects and celebrations, community-wide volunteer days, and possibly, bandannas or t-shirts once we have a new name. c) Create a hard copy and virtual notebook on timing and methods of garden maintenance .

### Wish List

1. People-counter to gather data which could be helpful in grant requests, volunteer recruitment, etc.
2. Access to a chipper to produce large quantities of chopped pine needles, which we used in 2021 and found they make great mulch which saves water, protects plants, and balances alkaline soils. Chopped needles are preferable to wood chips because they are finer, do not weigh down emerging plants, and present an attractive, even appearance. Our chipper is very small; chipping needles took forever. We have plenty of pine needles at our homes to use. Commercially available mulches are expensive and vary in quality. Using pine needles instead also keeps them out of the landfill.
3. Clear box similar to the boxes planned for the Kiosk to hold chalk for Outdoor Classroom chalkboard.
4. A "Pet Waste Station" would help keep the gardens pleasant for visitors and volunteers alike. Volunteers could maintain it and keep it supplied with bags from newspaper deliveries.



New Map of the Habitat Gardens  
(by Clair Baldwin)





## 2021 Report and Plans for 2022, Garden-by-Garden

### Orientation Kiosk and Wildlife Viewing Platform

**2022:** Coconino County officials will hold a community celebration to change the name of Sawmill County Park to Elizabeth "Liz" C. Archuleta County Park, in honor of former County Supervisor Liz Archuleta, who conceived the park and made it happen. Just before the rededication ceremony, CCPR will install signs designed by Julie Sullivan and illustrated by Claire Baldwin on the Orientation Kiosk and by the Viewing Platform. Signs for the Outdoor Classroom and individual gardens and features will also be installed. Installation of these signs is contingent on the weather being warm enough for the concrete to cure (concrete will hold each sign—except for the Kiosk and Outdoor Classroom signs—in place). Clear boxes to hold brochures will be installed on the Kiosk also.

### Orientation Kiosk



## Signs for Sides A and B, Orientation Kiosk

# WELCOME

## Elizabeth "Liz" C. Archuleta County Park

### A Multicultural Art and Nature Park



**Willow Bend Educational Environmental Center**

It all began when middle school science teacher Jim David and District Conservationist Jim Allen, of the Coconino Natural Resource Conservation District (NCRCD), proposed an environmental education center for Coconino County. In response, the NCRCD Board of Supervisors established the Resource Center for Environmental Education in 1988. Twenty years later, the Center found a permanent home in Elizabeth "Liz" C. Archuleta County Park and was renamed the Willow Bend Environmental Education Center. Ours was the first of over two dozen NCRCD-sponsored conservation education centers in Arizona.

Willow Bend is a 501(c)(3) nonprofit organization. Our mission is to build environmental awareness and an ethic of responsible stewardship of our natural and cultural resources by building connections between people and the natural world.

Willow Bend offers environmental education programs at local schools, outdoor field trips around Flagstaff, community events and workshops at the Center, and upon request, guided tours of our passive solar, straw-bale building and our low water-use native plant gardens. Our work is supported through grants, sponsorships, contract partners, organizations, members, individuals, and volunteers.

We offer internships and have an active garden volunteer program during the growing season. For more information or to make a donation, visit the Center, or schedule a program for your class or group, visit [www.willowbendcenter.org](http://www.willowbendcenter.org) find us on Facebook or Instagram, or contact us at [elizabeth@willowbendcenter.org](mailto:elizabeth@willowbendcenter.org) or (928) 779-1765.

### Habitat Gardens



Willow Bend is a conservation organization that exists to contribute to conservation through your education or other activities. We exist to help you learn about the natural world and to help you contribute to its conservation.

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**Coconino County Parks & Recreation**  
Connecting People, Cultures, & Communities

Welcome to Elizabeth "Liz" C. Archuleta County Park. Now a certified National Wildlife Federation Wildlife Habitat, the park is part of a revitalized brownfield where a sawmill operated from 1938 to 1993. When the sawmill closed, Liz Archuleta, then a County Supervisor, held town halls to learn what the community would like to have in its place. Musicians, artists, and families shared their vision of a park dedicated to celebrating the arts and diverse cultures of Flagstaff and to learning about nature. Since then, a culturally diverse group of local artists contribute to a rotating sculpture walk and art wall.

Business, service organizations, volunteers, and State, County, and City staff have worked together to create unique spaces for learning about the local environment—the park's Habitat Gardens, Wildlife Viewing Platform, Outdoor Classroom, and Ponderosa Barn—with its hand-hewn beams and browse wildlife trails. We encourage you to slow down, meander on the many paths, and enjoy the natural world around you.

Children of all ages are invited to explore, use their imaginations, learn, and have fun through activities in the playground and the Outdoor Classroom. See how a community can transform a former industrial site!

For information regarding volunteer opportunities, programs, and events at Elizabeth "Liz" C. Archuleta County Park, please contact:  
[perkins@coconinocounty.gov](mailto:perkins@coconinocounty.gov) or call (928) 671-8000. Find us on Facebook and Instagram or visit [CoconinoAZ.gov/Parks](http://CoconinoAZ.gov/Parks).

# USE YOUR SENSES

## Arizona Watchable Wildlife Experience




**Watchable Wildlife Sites within 30 miles of Flagstaff**

Use your senses to discover wildlife:

- Look
- Listen
- Touch
- Smell

### About Local Wildlife

Elizabeth "Liz" C. Archuleta County Park is an Arizona Watchable Wildlife site in the heart of Flagstaff. Three habitats meet here, bringing together an astonishing array of wild creatures. Animals you might see include at least seven mammal species, several birds and snakes, over 75 species of birds, and a host of insects.

 <p><b>Mule Deer</b> Mule deer are the largest deer in the state and are found throughout the state. They are often seen in the mountains and are a common sight in the park.</p>	 <p><b>Ring-necked Pheasant</b> Ring-necked pheasants are introduced birds that are common in the park. They are often seen in the fields and are a common sight in the park.</p>
 <p><b>Bobcat</b> Bobcats are the second largest cat in the state and are found throughout the state. They are often seen in the mountains and are a common sight in the park.</p>	 <p><b>Gray Fox</b> Gray foxes are the smallest fox in the state and are found throughout the state. They are often seen in the mountains and are a common sight in the park.</p>
 <p><b>Palmated Pigeon</b> Palmated pigeons are introduced birds that are common in the park. They are often seen in the fields and are a common sight in the park.</p>	 <p><b>Red-tailed Hawk</b> Red-tailed hawks are common in the park and are often seen in the fields and are a common sight in the park.</p>
 <p><b>Spotted Salamander</b> Spotted salamanders are common in the park and are often seen in the fields and are a common sight in the park.</p>	 <p><b>Blue-headed Vireo</b> Blue-headed vireos are common in the park and are often seen in the fields and are a common sight in the park.</p>



## Sign for Viewing Platform

### Diverse Habitats

Three habitats meet in Sinclair Wash. Each sustains its own community of animals, which mingle with the others as they seek water, food, and shelter. Many different trees, shrubs, wildflowers, and grasses offer leaves, berries, seeds, and nectar for food and provide cover, nesting sites, and perches.



#### Territories of Time

Animals sort themselves into different times of day and seasons of the year. Most mammals are nocturnal (active at night) or crepuscular (active around dawn and dusk). Most birds and reptiles are diurnal (active during the day). Turkey vultures and many songbirds migrate to the Flagstaff area in spring and migrate south in fall.

Animals born in the brisk and windy spring learn to fend for themselves among the flourishing plant communities of the warm summer months. Autumn brings colorful foliage and ripe berries; winter is leafless, dormant, and sometimes blanketed in snow.



Funded by the  
AZGF Heritage Fund

#### Ponderosa Forest

On the bluffs across Sinclair Wash, ponderosa pines host nesting songbirds, Albert's squirrels, porcupines, and bats. A many-layered understory of shrubs, grasses, and other plants sustains pygmy nuthatches, gray foxes, chipmunks, and ground squirrels. The bluffs face north, creating cool and shady conditions for the ponderosas, which also form stands in the deep and shady reaches of the wash.



Hairy woodpecker (*Dryobates villosus*)  
Albert's squirrel (*Sciurus aberti*)



#### Riparian Habitat

Willow Bend is named for the bend in Sinclair Wash, which is marked by a large willow tree. The wash is one of several streambeds which carry rain and snowmelt from all directions to the Rio de Flag. Animals move along it as they hunt for food, seek shelter, or travel between higher, cooler habitats and lower, warmer ones. Humans travel it, too, on the Sinclair Wash Trail at the foot of the FUTS trail to your right. Although water flows through it only part of the year, Sinclair Wash sustains riparian (Latin for "riverbank") trees and shrubs which are lively with songbirds. A half-mile to the east, year-round wetlands attract waterfowl and shorebirds.

Lazuli bunting (*Passerina amoena*)  
Raccoon (*Procyon lotor*)

#### Rocky Slope

The slope below changes from top to bottom. Reptiles and rock squirrels dash among the rocks and bunchgrasses of its steep, sunbaked upper reaches. Small rodents and birds rustle in the wild roses and threeleaf sumac of the gentler slope midway down, while songbirds flutter in clumps of Gambel oak and willows in the moist conditions near the bottom. Dark boulders tumble down the slope, eroded from a lava flow that filled an ancient streambed in the limestone bedrock about one million years ago. That ancient stream eroded a new bed around the lava, carving present-day Sinclair Wash.



Rock squirrel (*Otospermophilus variegatus*)  
Many-lined skink (*Plestiodon multivirgatus*)



Scan for more about the  
natural world of Willow Bend

## Example of Sign for Individual Gardens and Features (such as the Compost Station)



### Lizard Garden

**Background:** Rocks, long pieces of wood, soil, and gravel keep working their way down the hill. In some cases, yuccas and gravel create unsafe conditions on the trail. Weeds, grasses, and rogue rabbitbrush grow among the yuccas, agaves, cactus, and other desert plants, spoiling the appearance of the garden.

**2020:** CCPR determined the best course of action would be to stabilize the hill with large boulders and downed wood, arranged to create planting pockets for desert plants.

**2021:** Volunteers worked on it from time to time, but effectively stabilizing this steep, extensive slope is beyond our capabilities.

### Compost System

**2021:** Eagle Scout Mason Takeuchi maintained the compost system throughout the winter of 2020 and the following year, mixing in vegetable trimmings from his volunteer work at the Flagstaff Family Food Center. In April of 2021, Mason led his fellow Scouts in digging the compost into the Native Heirloom Garden together with organic soil amendments, including gypsum for moisture retention. The results were spectacular! Native Heirloom crops flourished, creating a jungle of sunflowers and yielding gourds and squash, three varieties of corn, several varieties of beans, amaranth and quinoa, devil's claw, Zapotec tomatoes, and more—including several vegetables from seeds in Mason's compost. From now on, this garden will be managed according to "no till" best practices.





## Native Heirloom Garden

The Native Heirloom Garden was featured on the August 2021 Master Gardeners Association's first "Flagstaff's Finest Vegetable Tour." We received lots of visitors, answered questions, and offered gardening advice about farming indigenous crops using the French intensive method :-).



Hopi Rattle Gourds



Zapotec Tomatoes

## Kitchen and Herb Gardens

The Kitchen Garden is basically a teaching garden, intended to teach that food comes from plants and can be grown at home, even here in Flagstaff.

**2021:** In June, Eagle Scout candidate Colin McAvoy led a team who dug compost and soil amendments into the Kitchen Garden and the Herb Garden (the strip of dirt between the sidewalk and the Ethnobotanical Garden). They repaired the rock borders before planting seeds and starts of plants used for food and seasoning.

Note: The revised Step Up Program will not return to plant or maintain the Kitchen Garden. Volunteers will do it instead.





## Shed Improvements

**2021:** In February, Eagle Scout candidate Jordan Shepard led a Scout team in making substantial improvements to the garden shed under the guidance of volunteer Norm Lowe. Outside, they installed a solar panel on the shed roof. Inside, they installed strip lights, an inverter for charging tools such as the weedwhacker, extensive shelving and pegs, and a small workbench with tools and supplies commonly needed for repairs and projects in the gardens (hammers, screwdrivers, nails, glue, drill, etc.).





## Seasonal Wetland

**2021:** Disturbance will occur when the pond is rebuilt. We rescued plants from the path of that project and potted and buried them to replant after the Seasonal Wetland is reconstructed. Once we know the schedule for this project, we hope to obtain a Forest Service permit and collect more plants for the Seasonal Wetland from natural wetlands on Coconino National Forest.



Along with a range of other tasks, NAU First Generation Students and Blevins Scholars helped rescue plants from the Seasonal Wetland for future replanting.