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THE UNIVERSITY OF OKLAHOMA GRADUATE COLLEGE

COTTONWOOD PARK

A PROFESSIONAL PROJECT

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfilment of the requirements for the

Degree of

MASTER OF URBAN DESIGN

By

SHERRY MARIE SMITH

Norman, Oklahoma 2021 COTTONWOOD PARK

A PROFESSIONAL PROJECT APPROVED FOR THE

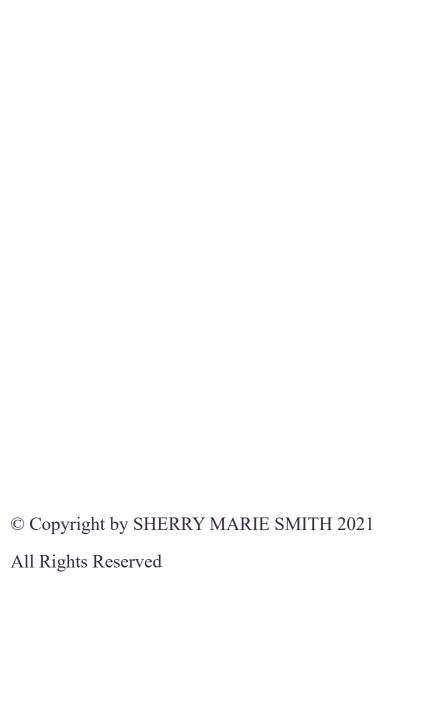
URBAN DESIGN STUDIO

CHRISTOPHER C. GIBBS

COLLEGE OF ARCHITECTURE

BY

Shawn Michael Schaefer, Chair David Boeck AIA Fracesco Cianfarrani, Ph.D. Shideg Shadraven, Ph.D.





I would like to thank the Coweta Steering Committee for allowing me to work with you on my thesis project. I thank you for your enthusiasm in accepting all the work I put into this. You have been a blessing. Thank you to the citizens of Coweta who took part in the survey to create this plan. It shows you care about your community. I hope this plan represents you well.

Sherry Marie Smith

Fig.1

PARTNER

City of Coweta

STEERING COMMITTEE

Roger Kolman - City of Coweta City Manager

Carolyn Back - City of Coweta Community Development Director

John Staires - City of Coweta Building Official and Floodplain Administrator

Mandy Vavrinak - City of Coweta Public Information Officer

Wes Richter - City of Coweta Public Works Director

Gage Fisher - City of Coweta Police Officer

Beckie Price - City of Coweta Employee

Naomi Hogue - City Councillor

Doyle Wilson - Coweta Office Broker at Chinowith & Cohen Realtors

Kellie Howard - Coweta Business Owner and Developer

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INTRODUCTION

INTRODUCTION

SCHEDULE

DEFINITIONS



INTRODUCTION

The 2020 - 2030 Comprehensive Plan for the City of Coweta was completed on October 5, 2020. Exactly one month, to the day, later I was contacting the City of Coweta to inquire if the city leaders would allow me to help them create a plan in an area that experiences frequent floods, for whatever the city needed. The city leaders were happy to oblige. The recently completed comprehensive plan indicated that the city should have a park at Cottonwood Acres, a 20 acre parcel of land that used to be a neighborhood. All of the houses in the neighborhood had been bought out with funds from the Federal Emergency Management Agency (FEMA). Community outreach results, conducted for the 2008 Park and Recreational Facilities Plan, indicated that the residents were interested in having a dog park at Cottonwood Acres, with fencing, cleaning stations, trash cans, signs, and ADA curb cuts for crossing the road (Ref.17). Both plans indicated a need for more trails and play areas for children. The comprehensive plan also indicated a need for community gardens and green spaces that are inviting to seniors (Ref.18). Through research, community engagement and design, the goal for this project is to create a plan for a park that not only meets the desires of the citizens of Coweta, but is one they can be proud of, will enjoy using, and aligns with the goals of the city.

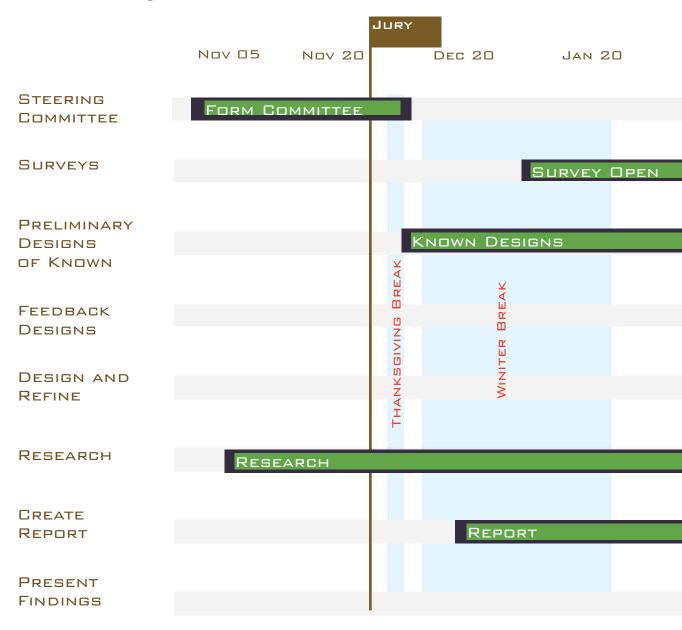
Future Cottonwood



Fig. 2

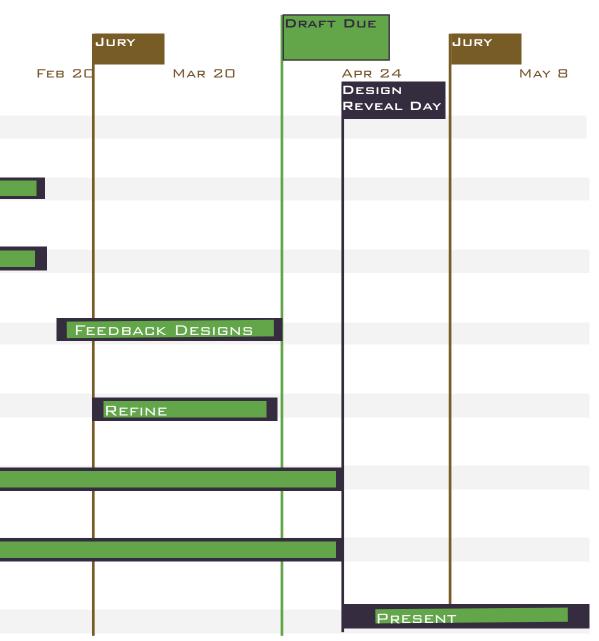
SCHEDULE

The project began with the city leaders forming a steering committee which included people who live near the proposed park. The next step was preparing for and conducting a community survey to glean an understanding of what the community would like to have in this park and how they would like to use the park. While creating the community survey and getting it out to the public, funding research began and preliminary designs were created from the information in the 2020-2030 Comprehensive Plan, the Park and Recreational Facilities Plan, and information from city leaders and steering committee.



INTRODUCTION

Once the data was collected, the information was presented to the steering committee for interpretation, and the preliminary designs were adjusted. The adjustments were made based on the desires of the community, FEMA requirements, design elements required for funding, and durability of products. The designs were revealed to the public on April 24,2021during a "Keep America Beautiful" "Trash Off Day" event. Pictures of this event can found in Appendix E. After the completion of the report, it will be presented to the City Council and the Planning Commission the first week of May.





DEFINITIONS & ABBREVIATIONS

Abiotic: Soils, hydrology, physiology, geology, climate, Physical rather than biological; not derived from living organisms (Ref.1).

Berm: An artificial ridge or embankment.

Bioswale: A channel or trench that is planted on both sides with plants of various water needs. The plants filter and slow down water as the water flows into the channel from nearby roads, parking lots, sidewalks and other sources. During the process of the water passing through the plants, some of the water is taken up by the plants. The channel should be comprised of absorbent material such as gravel or mulch. Berms may be within the channel to slow the water further, causing the water must pool to the height of the berm before it is able to flow over it. During this process polutants settle out of the water and some are broken down by plants. According to The Watershed Project, rain gardens and bioswales absorb 30% more water than a traditional lawn and stormwater pollution by 70% (Ref.2)

Biotic: Wildlife and vegetation: living things especially in their natural habitat (Ref.1).

Citizen Science: Citizen science refers to participation of the general public in scientific research.

Ecology: The study of living organisms and their physical environment.

FEMA:Federal Emergency Management Agency

Flood-plain: An area that has at least a one - two percent chance of flooding in any given year; also referred to as 100 year flood-plain or 500 year flood-plain (Ref.3).

Flood-way: A river channel and the land adjacent to it that must be reserved to accomadate peak water flow (Ref.3).

In-kind: Donations in the form of volunteering time or donating items.

HEC-RAS: Hydrolic Engineering Center's - River Analysis System: Army Corps of Engineers software that allows one to perform water flow and and sediment transport calulations (Ref.5).

Inclusive Design: Design for "all of us." This includes people with "permanent, temporary, situational or changing disabilities (Ref.4)."

Rain Garden: A garden of plants with varying water needs, that is watered by storm water. The garden is comprised of absorbent material and may have drains in it to take water to another location. Berms may also be in rain gardens to further slow the water, preventing flooding and allowing the plants more time to absorb water. Rain gardens also remove pollutants from the water as the water passes through the roots of the plants and some pollutants settle to the ground. According to The Watershed Project, rain gardens and bioswales absorb 30% more water than a traditional lawn and stormwater pollution by 70% (Ref.2).

INTRODUCTION

SITE RESEARCH

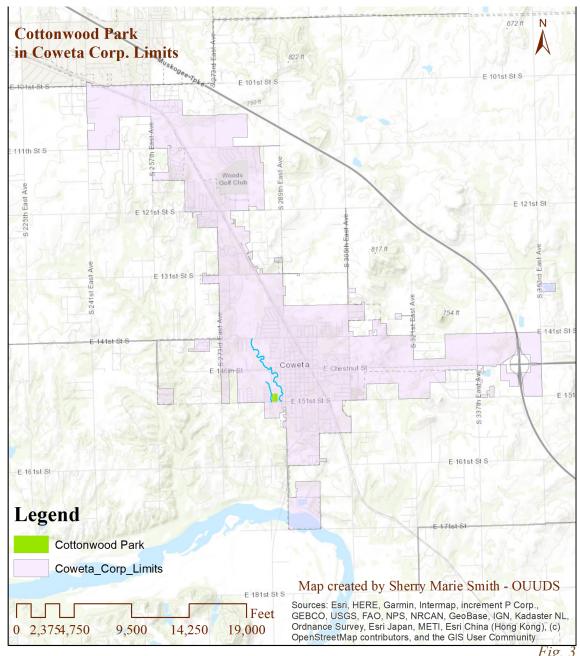
- VICINITY
- HISTORY
- ECOLOGY
- CONNECTIVITY



VICINITY

Cottonwood Acres is located on East 151st Street South and Cottonwood Drive. It is a 20 acre parcel of land. The lower 10.5 acres was a neighborhood through the year 2012, and, is the portion of the property the city is planning to convert to a park. Coweta Creek passes along the east side of the property and an un-named creek passes along the west side. The property is approximately two miles north of the Arkansas River.

Cottonwood Park's Location within Coweta's Boundary



VICINITY

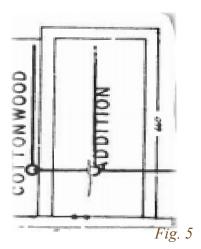
The map below shows the full 20 acre parcel of land, now known as Cottonwood Acres. This plan concerns the lower 10.5 acres of Cottonwood Acres, indicated as, "Current Planning Area." In the future, the city hopes to extend the park to the top 9.5 acres as well. A trail connection from Cottonwood Park to Roland Park is also planned for the future as part of the trail system recommended in the Comprehensive Plan. Because the property was once a neighborhood, utilities are present on the property. Electric lines are buried. The site has gas, water and sewer as well. Maps of water and sewer to on the site are shown below.

Current and Future Sites



The map on the left shows Cottonwood Acres outlined in brown with a line dividing the south 10.5 acres, the city has designated to be the focus of this plan, from the north nine and a half acres to be planned for in the future.

Sewer



Sewer line map (left), and water line map (right) for Cottonwood Acres, provided by the City of Coweta.

Water

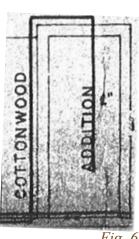


Fig. 6

HISTORY

Cottonwood Acres was recorded as a new subdivision in Coweta, Oklahoma on August 12, 1970. At that time, only the east 30 feet of the property was located within Coweta's City limits (Ref.6).

February 1995



The picture above shows the first year Google Earth Pro has pictures of Cottonwood Acres Neighborhood. There are no houses on the upper 10.5 acres or in the flood-way.

October 2006



This is the first year it appears houses are being removed from Cottonwood Acres.

August 2012



Google Earth does not have any pictures between 2012 and 2014. Only two houses remain in this picture.

April 2014



Fig.10

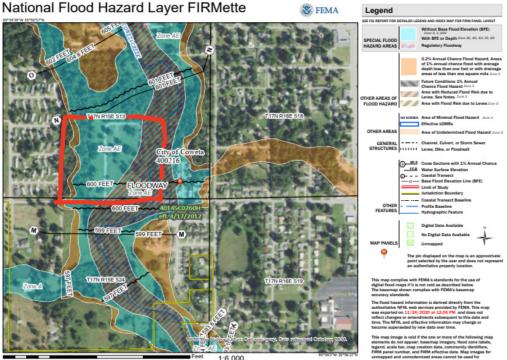
By 2014 there are not any houses left.

ECOLOGY - ABIOTIC

Flood Zones: Research was conducted to understand what can be built in a flood-plain or a flood-way. Civil Engineer Mike Williams of Crafton Tull, the engineering and architecture firm that created the new design for Roland Park, shared that everything in the flood-plain needs to be bolted down. Very heavy rocks would be an exception. The point is that nothing should be in danger of floating away and causing issues downstream. Overnight camping in a flood-plain would be dangerous and ill advised. He also stated that the ground elevation needs to stay the same. Currently the north end of the focus area in Cottonwood Acres is two foot higher than the south end. This should still be true when the project has ended. If any fill dirt is taken out in one area, elevation should be raised an equal amount in another area. If the criteria just mentioned is met, HEC-RAS software does not need to be used. Wood should not be used in a flood-plain and galvanized steel is best practice (Ref.7).

First Lieutenant Travis Wilsey, EI, CFM, of the U.S. Army Corps of Engineers added, after seeing the current plan adapted to follow Crafton Tull's advice; since there are no living structures in the park, Base Flood Elevation standards do not need to be met. And, Building in the flood-way would only be able to be done after a long, expensive process (Ref.8).

FEMA Flood Map



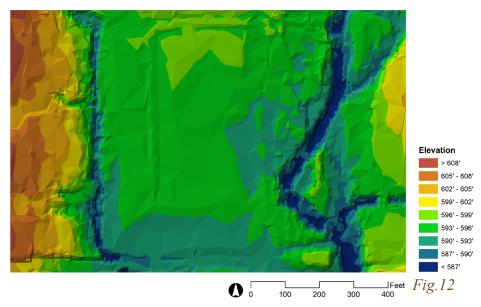
The map to the left shows Cottonwood Acres, with its notable staple shaped road. *It shows the property* as being fully located within the 100 year flood-plain (blue) and partially located *within the flood-way* (striped). Brown indicates the 500 year flood-plain. The lower 10.5 acres of Cottonwood Acres is surrounded by an orange box.

Fig. 11

ECOLOGY - ABIOTIC

If you look closely at the elevation map below, you should be able to distinguish Cottonwood Acres' staple shaped road. It is in the green area between the two creeks. The very light green at the north end of the map, covers the top (north) of the staple shaped road. East 151st Street South is located at the bottom of the map where the creek on the west turns east to before disappearing under the road.

Elevation Map



For reference, a 2015 map from Google Earth Pro, taken in the spring before all of the trees had their leaves on, is shown below. The creeks are drawn in to make it easier to compare the two maps.

Reference Map



SITE RESEARCH

ECOLOGY - BIOTIC

Coweta's Regions of Biodiversity: Coweta is located in the Prairie Plains and the Arkansas River Valley. This includes the Tallgrass Prairie and the Post-Oak and Blackjack Oak Forrest. These national treasures are diminishing, and not only is Coweta located within these regions, Cottonwood Acres still holds onto thick forests of Post-Oak and Blackjack Oak.

Cottonwood's Oak Forests



Fig. 14

Tallgrass Prairie

Fig. 15

By simply spreading seeds in the Cottonwood Acres flood-way, nature would take it's course and take this part of the park, where nothing can be built, back to its tallgrass prairie status. The creeks on either side of the property flooding from time to time will even be beneficial to the prairie.

Regions

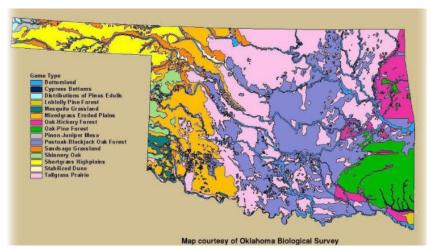


The above map shows Coweta, next door to Tulsa, in the Prairie Plains and the Arkansas River Valley.

ECOLOGY - BIOTIC

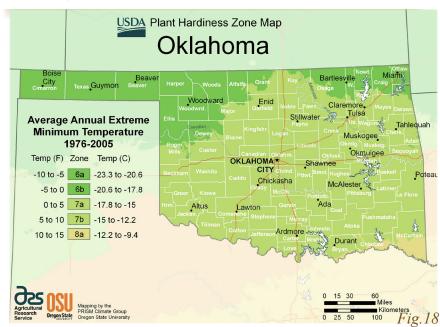
Vegetaiton: On the map below, the northeast "Oak Hickory Forest" in magenta aligns with the Ozark Plateau, which is outlined by the Neosho River on its west side, followed by the Verdigris River then the Arkansas River. Coweta fits nicely between these two rivers, in the pink Tallgrass Prairie and purple Post-Oak and Blackjack Oak Forests.

Biological Survey



Planting Zones

Fig.17



Coweta is located within planing zone 7a. However, it should be reasonable to assume that plants adapted for regions as low as 6a, that can handle a lower freeze point that what is listed for Coweta or as high as 7b, that are within freezing range listed for 7a. Recommended plants for Cottonwood Park is discussed in further detail in Appendix C of this report.

SITE RESEARCH

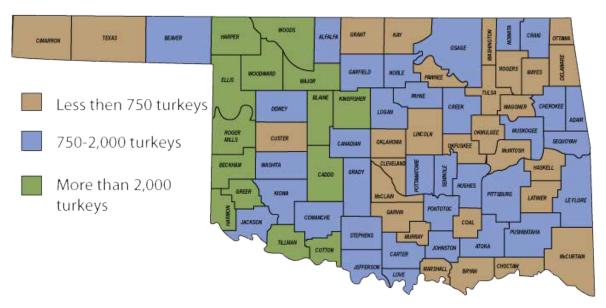
Coweta's Animal Diversity: Coweta, and more specifically Cottonwood Acres, has a well established forest, is located in rich river bottomland that floods periodically and has a big open field where nothing can be built, because it is in a flood-way. With this wealth of ecological diversity it is likely that the wildlife that is common to northeast Oklahoma, spends plenty of time in Coweta, and likely visits Cottonwood Acres.

Cottonwood Acres is already what many nature lovers would consider a paradise. It has water, forests, prairie, and it certainly has wildlife. Haven's such as this are diminishing. In the following pages you will catch a glimpse of what may already be common visitors to Cottonwood Acres, and what animals this park will help re-introduce.

Wild Turkey

Current Wild Turkey Population Estimates

Estimates based on winter flock surveys conducted by wildlife biologists, game wardens and other Department personnel.



This map from the U.S. Department of Wildlife shows Coweta is in an area where wild turkey populations are low. This emphasizes the importance of creating more parks and green spaces where wildlife populate and rest.

ECOLOGY - BIOTIC

Coweta's Bats: The joy of seeing a bat may not be what gets you out of bed in the early hours of the morning or keeps you out late at night, but they play an important role in our community.





According to BatsLive, a little bat can eat over 1,000 mosquitoes a hour. And, if she's nursing babies, around 4,500 an hour! When people consider the benefits of bats the list usually begins with pollination and ends with eating mosquitoes. But there are more bad bugs than just mosquitoes. Bats work behind the veil of night, not just to eat mosquitoes, but grasshoppers and similar insects that destroy crops. It is true that bats are important pollinators (Ref.9). However, other than tropical fruits, most that are generally found in pollinator gardens for bats are extremely toxic to humans and animals. Bats will plants as well, and any plant that is advertised as being a pollinator plant for bats, should be carefully scrutinized before being considered an option for the park.









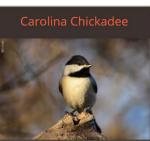


All bats represented on this page are known to be found specifically in Coweta's region of northeast Oklahoma. All pictures were provided by the U.S. Department of Wildlife.

Fig.20

Oklahoma's Birds: It seems far more likely that, when considering nature, birds will bring more people to the park than bats. Oklahoma has a wide variety of birds. And, Cottonwood Park with its diversity of river valley land, prairie, and oak forests is likely to attract a lot of them.





While some birds are as harmless as a Carolina Chickadee, it is important to be aware of birds such as the Brownheaded Cowbird.

Fig.21

The Brown-headed Cowbird is what is known as a brood parasite. While it is beautiful with its chocolate colored head against a black satin body, it is opportunistic. Brown-headed Cowbirds do not raise their own young. Instead they search out nests of song birds, and lays their eggs there. The Cowbird's eggs hatch faster. Once hatched, the Cowbird newborns destroy the songbirds eggs and any foster siblings. The songbird, then raises the Cowbird babies as her own. Cowbirds are considered a nuisance in the state of Oklahoma and can be terminated any time of year.



Fig.21

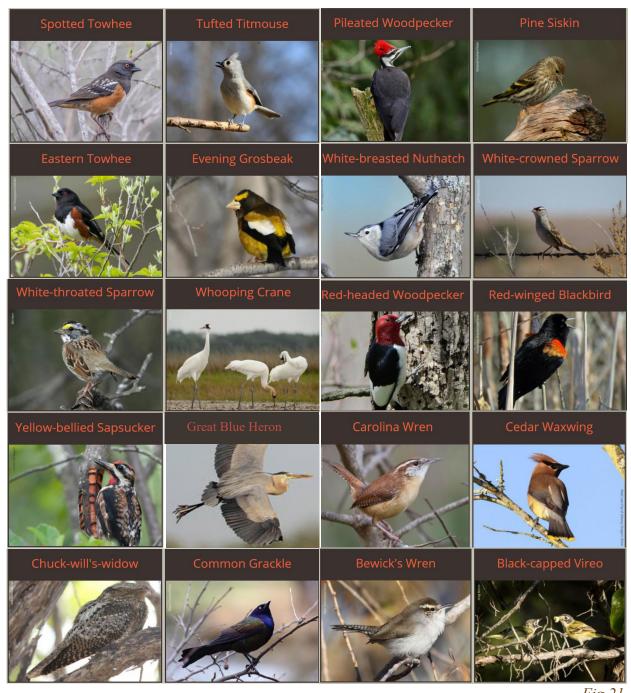
The scissor-tailed flycatcher is Oklahoma's State Bid. Their long tails help make the acrobatics needed to catch bugs, mid-air, possible. These birds can generally be found in fields, with scattered trees, near town. In late summer, they gather in large flocks referred to as a, "zipper," "pinking," or a "snip," and migrate south to Mexico or Central America for the winter (Ref. 10).

ECOLOGY - BIOTIC

Oklahoma has far too many beautiful birds to be able to portray them all on these pages. However, there should be enough listed here to spark excitement in Coweta's citizens about what they might get a chance to see if they take a stroll through Cottonwood Park.



All pictures of birds, with the exception of the Great Blue Heron, came from the U.S. Department of Wildlife. The Great Blue Heron was retreived from BirdWeb (Fig.22).



With Cottonwood Acres' tallgrass prairie, oak forest with trees of varying ages and stages of health, and mucky creek beds, it has everything needed to lure in any of the birds pictured on these pages.

ECOLOGY - BIOTIC

Hummingbird Migration Through Coweta: Although many hummingbirds cross Oklahoma's border, the Ruby Throated Hummingbird is the only one that visits the vicinity of Coweta. The pictures shown below depict a male on the left and a female on the right.





Fig. 23

Hummingbird Migration

Below is a migration map for Ruby Throated Hummingbirds. Although the map indicates the birds will be in Coweta around April 10, 2021 they could arrive as early as March 5th. The needs of hummingbirds are covered in more detail in the links provided in Appendix B of this report.



Fig. 24

Oklahoma Butterflies: According to the XERCES Society for Invertebrate Conservation, Oklahoma is home, at least part of the year, to over 170 species of butterfly (Ref.11)! Obviously, that is too many to list here. So, the State butterfly was chosen along with some other pretty ones, and some with interesting names. These butterflies are just a tease of what one might find when exploring the park. Butterflies are pictued below in rows running left to right: Top Row: Black Swallowtail caterpillar and butterfly (Oklahoma's State butterfly), Florida White Eastern Swallowtail butterfly and caterpillar, Florida White,. Second Row: Banded Hairstreak, Cassius Blue, Coral Hairstreak, Great Spangled Fritillary. Third Row: Eastern Tailed Blue, Giant Swallowtail, Great American Copper, Great Purple Hairstreak. Southern Dogface, Bottom Row: Creole Pearly Eye, Female (blue) and Male (Gold) Diana Fritillaries Zebra Swallowtail.



CONNECTIVITY

Monarch Life Cycle



Fig. 33

Monarch Migration Map

Monarchs come to our state in the spring to breed and in the fall to fuel up on milkweed before they head south for the winter. Both events require milkweed. As can be seen on the map below, areas without milkweed do not host monarchs. The needs of monarchs and other butterflies are covered in more detail in the links provided in Appendix B of this report.

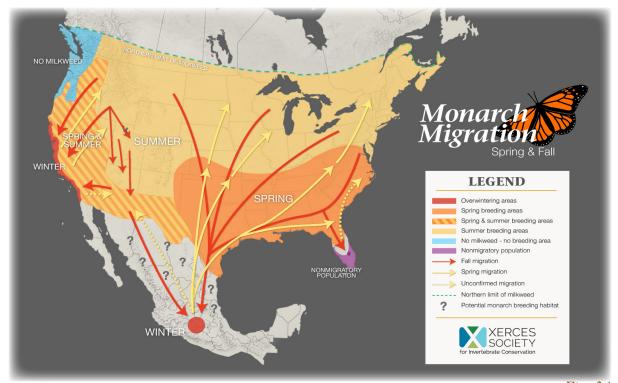


Fig. 34

Road Access Adjacent to Park: Cottonwood Acres is located on E.151st Street S. and Cottonwood Drive. It is .2 miles west of Coweta's Broadway District and 1.2 miles south of Roland Park Although there is a large population of people that live within walking distance to this future park, currently the only safe way to get there is by car, walking down or across a creek bed, or across land. However, This is a country road with little to no traffic on it for most of the day.

Planned Park



Fig. 4

West Side Bridge



Fig. 14

Google Earth Pro image of person riding bike over bridge that crosses the creek on the west side of Cottonwood Acres.

East Side Bridge



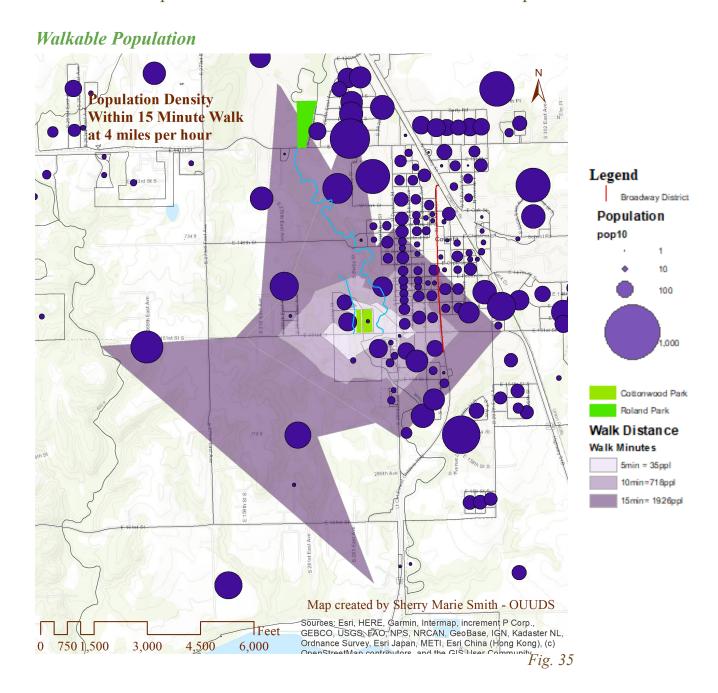
Fig. 14

Google Earth Pro image of bridge over Coweta Creek. Coweta Creek follows the east side of Cottonwood Acres.

SITE RESEARCH

CONNECTIVITY

Population Density & Walkability: The map below shows where the greatest amount of people live in relation to Cottonwood Acres, and the amount of people that can walk along the roadway to Cottonwood Acres current entrances. The Broadway District and Roland Park have been highlighted to demonstrate how accessible the park is to these attractions. The speed used to calculate walk time was four miles per hour.



Child Pedestrian Safety: According to Planning and Urban Design Standards, research shows that if a park has a playground, kids from within a quarter mile radius will walk to it (Ref.1). And, it is not guaranteed they will wait for their parents to come with them. Cottonwood Acres has some barriers that make creating trails or sidewalks to the park difficult. And, this plan only focuses on creating a park. However, the fact that children don't tend to wait for sidewalks and crosswalks to be built, before they commence with their travel plans, should make building safe connections to this park a priority. Children on the north side of E 151st Street S. will likely just walk across the creek when it is dry or cut across the 9.5 acres the City owns on the north end of the park. However, the children in the neighborhoods south of E. 151st St. S. should be considered as well.

Quarter Mile Radius

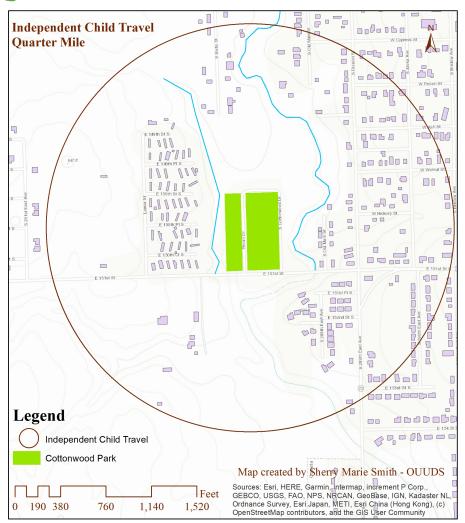
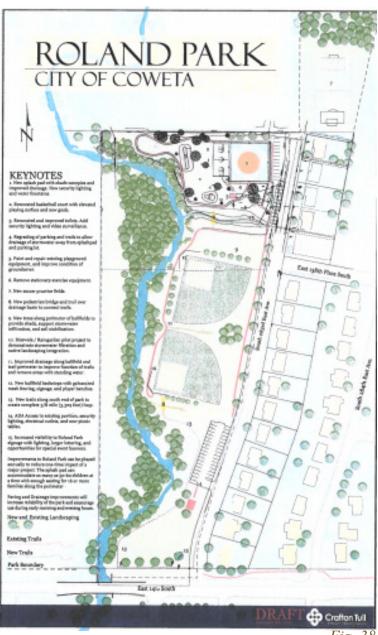


Fig. 36
The above map shows buildings within a quarter mile radius of the future Cottonwood Park, that children may travel from without the aid of their parents.

Roland Park: Roland Park is the only park within walking distance of the future Cottonwood Park. Although, there are a few small parks in Coweta's Broadway District that are just outside the walkable area. A plan was drafted in 2018 by Crafton Tull to update this park. However, the flood of 2019 and the pandemic of 2020 postponed these updates until mid to late 2021. The community is looking forward to these updates. The city hopes to eventually connect Roland and Cottonwood Parks via a trail along Coweta Creek and is proposed in the 2020-2030 Comprehensive Plan.

Crafton Tull Roland Park Plan



CONNECTIVITY

Proposed Trail 2020 - 2030 Comprehensive Plan: The map shown below is from the City of Coweta's 2020-2030 Comprehensive plan completed on October 5, 2020. It shows a trail beginning outside Coweta's boundaries to the west, and traveling northeast to where Coweta connects with the Arkansas River. The trail then travels north through Cottonwood Acres (proposed as a park in the Comprehensive Plan) before arriving at Roland Park on E. 141st St. S. Here, the trail splits, with a branch continuing north through Roland Park to E.131st St. S. and the other branch traveling west and out of the City's boundary.

Trail to Connect Cottonwood Park to Roland Park

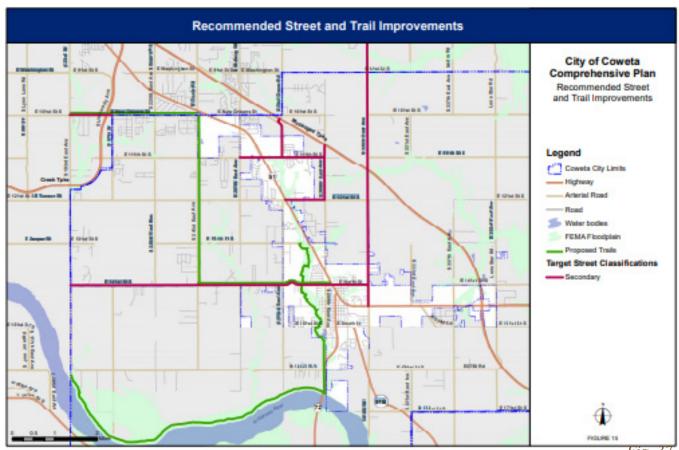


Fig. 37

CONNECTIVITY

Broadway District: Coweta's Broadway District is a treasure. With Cottonwood Acres only a 10 to 15 minute walk away, one could easily pick up lunch in town, stroll down to Cottonwood Park and absorb the peaceful nature for a while before walking back to town. The KATS shuttle bus is also located in the Broadway District. So, when events at Cottonwood Park are so popular parking becomes and issue in the park, visitors can always park in the Broadway District and do a little shopping while they await their turn to take the Kats bus to the park. They will not be disabppointed, as the Broadway District has charming and unique shops and restuarants only found here.

Roy's Barber, Carries Hair Company, and Dixies Cafe



Fig. 39

1843 Bar & Grill

Aliens sit atop Indigo Tie Dye Company



Fig. 39



Fig. 39

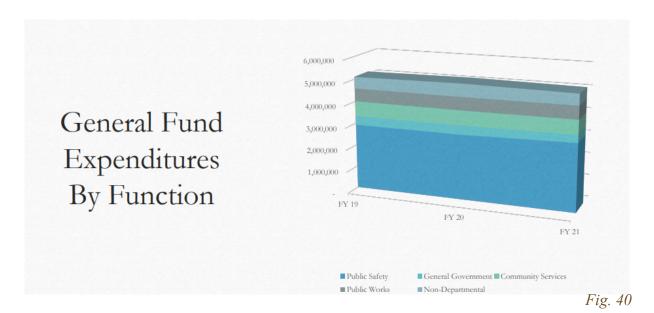
FUNDING RESEARCH

- STATE OF THE CITY
- GRANTS
- FUNDRAISING



STATE OF THE CITY

All of the slides in the State of the City section are directly from the City of Coweta State of the City Address conducted in April of 2020. Only slides with information relevant to the Coweta Park plan are included. The slides are catalogued here for reference, and the reader to interpret. No interpretation will be provided.



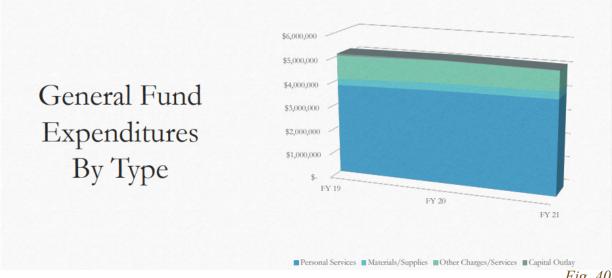


Fig. 40

All of the slides in the State of the City section are directly from the City of Coweta State of the City Address conducted in April of 2020. Only slides with information relevant to the Coweta Park plan are included. The slides are catalogued here for reference, and the reader to interpret. No interpretation will be provided.

Dedicated Sales Tax

- Proposed dedicated sales tax
 - · Infrastructure, buildings, equipment
- 1¢ would raise approximately \$ 1.3 million/year
- Costs of infrastructure borne by users rather than residents
- Requires voter approval election originally scheduled April 2020

Fig. 40

Project	Description		
Public Safety Facility	New 2 story police/fire facility in downtown		
111th Street	Additional lane, storm sewer Hwy 51 to 278th E Ave		
273rd E Ave	Additional lane, storm sewer 111th to city limits		
273rd E Ave	Shoulders and drainage improvements 121st to 151st		
Master Drainage Study	Identify areas/methods for improvements to storm water drainage and retention		
121st Street South	Paving Hwy 51 to city limits, drainage improvements		
121st Street South	Paving Hwy 51 to city limits, replace box culvert, drainage improvements		
141st Street South	Reconfigure Hwy 51 intersection		
141st Street south	Add shoulders 298th E Ave to 305th E Ave, replace culverts, drainage improvements		
305th E Ave	Hwy 51 to city limits widen add shoulders, drainage improvements and paving		
Downtown Area	Drainage improvements		
Coweta Sports Park	Fix drainage, add lighting, pave parking lots		
Hwy 51 (East)	Extend sewer improvements 305th to Muskogee Turnpike		
Parks	Locate additional public park north of 131st St S		

Fig. 40

GRANTS

Funding research was done for the project because plans do not become projects without funding. It is difficult to find funding that does not have requirements attached. This research provides the knowledge of how much money the city may be able to expect from different resources and what is required in order to receive funding. Doing this research early was extremely beneficial to the design process and it helped the decision making process be fast and efficient.



Fig. 41

PlayCore: PlayCore does not have any grants, however their website is a great place to look for grants for any kind of park. Just go to playcore.com, click on resources and select their funding tool (Ref.12).

Bark For Your Park: PetSafe has a charity called Bark For Your Park. Every year they have up to \$200,000 available (Ref.13). Applications open May 1, 2021. They will need a letter from a civic leader showing support for dog park project; photos of the space where the future dog park will be, blueprints of your ideal dog park, a summary of how the community will benefit from the building, maintaining or enhancing of the dog park and a brief of how your community has shown support for an off-leash dog park. All of this information is covered in this plan

with the exception of the letter from a civic leader. You can apply at https://barkforyourpark.petsafe.com/2018-apply

The link says 2018, but it is for 2021. If you have questions you can email barkforyourpark@petsafe.net



Fig. 42





Grant Award Issue and Payment Timing

Fig. 43

Fig. 44

The Funders Network: The Funders Network is a colaborative charity working with Partners For Places. This is actually a network of funders. They work towards giving out consistently. Both of these grants can be used for community parks. They favor projects that incorporate responsible and environmental water stewardship and building community. The major grants they give or the General Grant, and the Stormwater Grant. The amounts available on these two grants never change. They wait until they have the funding secured, before they offer the grants. The grants are from \$25,000 to \$75,000 for one year projects and or \$75,000 to \$150,000 for two year projects. The deadline for the Stormwater grant application has already passed for this year. It would be a good idea to keep checking their website to see when the General grant invitation to apply is out. This grant money, from the Stormwater grant or General grant, is allowed to cover just about any need to fulfil the project. This includes overtime pay for City employees, maternity leave as well as anything that directly goes into the project.

There are also micro-grants randomly available. This means it is a good idea to check back regularly. All of the grants are for building community or supporting the environment in some way. Although the deadline has passed for the Stormwater grant in 2021, the invitation to apply is in the Appendix A. TFN's website is difficult to navigate, and old information is left there in ways that it looks new. The best method to get information from them beyond the appendix in this report, would be to go to this link https://www.fundersnetwork.org/contact/ and put in your information (Ref.14). Or, you can contact them with more traditional methods, here:

The Funders Network 6705 SW 57th Avenue Suite 700 Coral Gables, FL 33143

305.667.6350

GRANTS

State Funding: In Oklahoma State money for parks is handled by TravelOK.com. The Statewide Outdoor Comprehensive Recreation Plan (SCORP), grant applications and contact information is all located at travelok.com/state-parks/get-involved. The information is organized and if there is a need to call and talk to someone, the people are friendly and helpful. Any park or trail project to paid for with State funds must align with SCORP. This basically means that there are five issues that need to be addressed.

- 1. Regarding water use & run-off; best management practices should be implemented.
- 2. Recreation Resource Managers (RRMs) must be present and active during all discussions and plan implementation of water quality, quantity and allocation.
- 3. RRMs must take an active role in educating the public about water quality, quantity and danger of introducing invasive species.
- 4. Increasing access, at the neighborhood level to parks and open space.
- 5. Consider how the project can help Oklahoma citizens engage in recreation, physical activity and healthy lifestyles

The state offers two grants for parks and trails. They are the Land Water Conservation Fund (LWCF) and the Recreational Trails Program (RTP) grant. With both grants all project costs must be incurred and paid for within the project period, identified in the project agreement. Both must align with SCORP. These two grants compliment each other well, with each one covering parts of the park and trail creation process that the other does not (Ref.15).

Land Water Conservation Fund:

The application is open now and is due July 31, 2021 4:00pm.

There are four main points to consider regarding this grant (Ref.15).

- 1. LWCF reimburses up to 50% of the project cost and there is no funding cap.
- 2. Everything in the project plan and boundaries must be ADA compliant.
- 3. All utility lines must be buried.
- 4. This grant pays for all of the parks facilities, play, roads, trails, restrooms, etc.

Recreational Trails Program:

The application opens in the fall and is due January 31, 2022 by 4:00pm. Listed below, are three aspects of the grant that will apply to Cottonwood Park (Ref.15).

- 1. RTP reimburses up to 80% of the project costs, with the state paying a maximum of \$300,000.
- 2. RTP Pays for infrastructure, permits, use of construction equipment, planning, etc.
- 3. RTP does not pay for facilities unless they are along the trail and for the trail.or for portions of trails along roads.

FUNDING RESEARCH

FUNDRAISING

Local Grants: Businesses within a 30 mile radius of a city or non-profit organization are generally willing to donate to them, if it is a cause they believe in. A lot of these businesses appreciate the tax write off. A few businesses that supply cities with grants for local parks are Coca-cola, ConocoPhillips and Waste Management.

Fundraising: Having events at Cottonwood Acres to raise money to transform it into Cottonwood Park will keep people feeling enthusiastic about the idea, trusting that it is going to happen, and give them a sense of pride for being a part of making it happen. Temporary fencing can be put up to facilitate dog competitions. The city can host virtual runs, where participants pay a fee to participate and can order a shirt if they like. They log their miles on their own time and at their own pace. Once they have completed their miles, they come to the city offices to pick up their metal. Another option is posting a meter in a known location for people who are excited about the park to donate to the cause. In-kind donations are arguably one of the best types of fundraising. For most grants, in-kind donations count toward matching funds. And, this donated time or supplies may help the people donating feel more connected to the park they are helping to create, than buying a t-shirt or competing in an event.

Virtual Run



In-kind Donations



Meter Donations



Weiner Dog Races



Disc Competitions



COMMUNITY OUTREACH

- STATE OF THE CITY
- COMMUNITY SURVEY



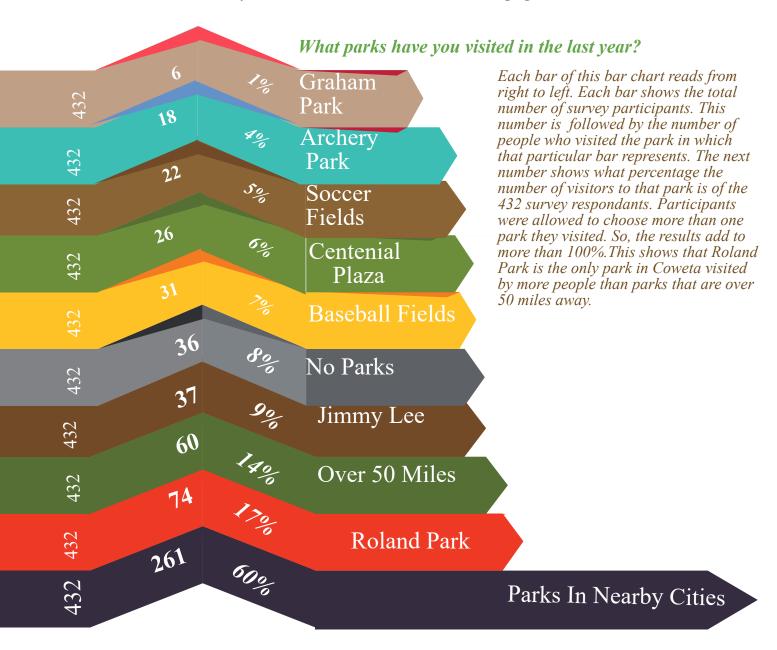
STATE OF THE CITY

All of the slides in the State of the City section are directly from the City of Coweta State of the City Address conducted in April of 2020. The slides below are the 2018 and 2019 results from a community survey Coweta conducts every year in April. In 2018 there were 530 respondents. In 2019 there were 353. The surveys show that public parks are high on the lists for types of development the citizens of Coweta would like to see. It also shows that the citizens are willing to pay for new parks and for park improvements (16).



COMMUNITY SURVEY RESULTS

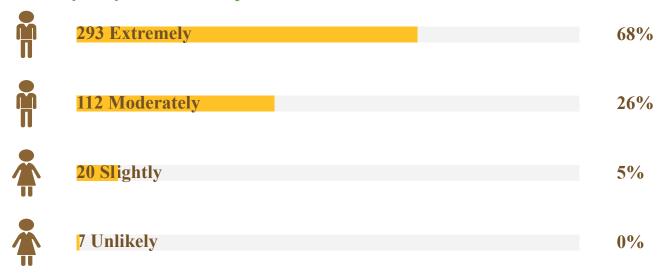
Links to a community survey were posted on the city's website, along with other sites, and throughout the Broadway District of Coweta from January 8, 2021 through February 8, 2021. 432 people participated in the survey. It is unique, in many cities for public projects to get this great of a response. It shows the community cares about their city. The results of this survey will be discussed here and on the pages that follow.





Park Visits: Together, the questions on this page give an idea as to how many people will visit Cottonwood Park and how often they can be expected to visit. It is also important to note, when flyers were being put up in Coweta's Broadway District with links to the survey for people to vote on what they would want in this proposed park; many people said they were not aware Coweta already has parks, and were excited they were going to get one. So, this park may get more visitors, because people are aware of its existence.

How likely are you to visit this park?



How often do you visit parks?



COMMUNITY SURVEY RESULTS

The survey indicated a large number of people will drive to the park and a little over nine percent will walk or bicycle to the park.

How will you get to the park? Choose all modes that apply:



Dog Park: Community outreach efforts conducted for the 2008 Parks and Facilities Plan indicated that the citizens of Coweta would like to have a dog park with fencing, cleaning stations, trash cans, signs, and ADA curb cuts for crossing the road; located at what is now Cottonwood Acres (Ref.17). This survey asked additional questions regarding how people would like the dog park to be designed. The survey indicated that there should be separate areas for large and small dogs. Both areas should have obstacles, as well as open areas for free play. And, they should have dog watering stations as well.





What would you like to be in the park?

Survey participants were asked if they would like certain amenities to be included in the park. The image below depicts each option that was offered and the percentage of people who chose the option as something that should be included in the park. Participants were allowed to pick more than one option, so the numbers add to greater than 100%. Other ideas people added in, are portrayed as loose puzzle pieces.





COMMUNITY SURVEY RESULTS

Survey participants were asked to prioritize what amenities they would like to have in the park. The items below were ranked first, second and third. The first column below shows items people chose as a first priority and the amount of people that chose each one of those items as a first priority. The second column shows the items people chose as a second priority and the amount of people who chose each item as a second priority. The rules are the same for the third column. *Place park amenities in order of importance.*

First Priority	Second Priority	Third Priority
Playground, 171	Playground, 56	Playground, 36
Trails, 89	Trails, 90	Trails, 63
Dog Park, 24	Dog Park, 23	Dog Park, 17
Shelter, 23	Shelter, 52	Shelter, 58
Food Trucks, 19	Food Trucks, 29	Food Trucks, 39
Picnic Tables, 17	Picnic Tables, 72	Picnic Tables, 92
RV Sites, 11	RV Sites, 10	RV Sites 12
Disc Golf, 11	Disc Golf, 18	Disc Golf, 25
Community Garden, 3	Community Garden, 4	Community Garden, 8
Guided Exercise, 2	Guided Exercise, 4	Guided Exercise, 8
BBQ Grills, 2	BBQ Grills, 12	BBQ Grills, 23
Pickleball, 0	Pickleball, 2	Pickleball, 2



- DECISION PROCESS
- DESIGNS



DECISION PROCESS

Deciding what elements and amenities would be put into the park was a complex process, many factors were considered.

Meet with City Leaders and Form Steering Committee: The process began with meeting with City leaders who explained, the property to be considered was in a floodplain. They indicated they that the park should include a dog park with fenced areas, lighting, parking, and trails. The leaders had heard a lot of talk in the community about disc golf and Pickleball, so these options needed to be considered. At this point the City leaders began the process of forming a steering committee of citizens which included some people who live near the proposed park.

Review Previous Plans and State of the City: The City handed over the 2008 Parks and Facilities Plan, the 2020-2030 Comprehensive plan that was completed in October of 2020, and the State of the City report from April of 2020. These reports showed that both the 2008 Parks and Facilities Plan and the 2020-2030 Comprehensive Plan indicated that Cottonwood Acres should be a park. The 2008 Parks and Facilities Plan had involved community outreach efforts that showed the citizens would like the park at Cottonwood Acres to include dog park with fencing, cleaning stations, trash cans, signs, and ADA curb cuts for crossing the road.

Flood-plain and Flood-way Constraints: Research was done considering what could and could not be built in a flood-plain, and if anything could be built in a flood-way. The result was, if approved by the local Flood Plain Administrator, buildings and structures could be placed in the flood-plain. And, as long as they are not structures where people will live, the land does not have to be built to a higher level to accommodate these structures. However, debris must be controlled during construction. Items should be made of galvanized steel. Anything light to enough to float away must be secured. Most importantly, the overall elevation of the property should not be changed. It is currently about five foot higher in the north central part of the property than it is on the south end of the property, The rest of the north end of the property is about two foot higher than the south end, although there is some fluctuation within a two to three feet range, throughout the property. Building anything in floodway, including putting a pole in the ground, requires approval from the Army Corps of Engineers and the U.S. Wildlife Department, then from FEMA. The process of getting this approval takes years and is expensive. The consequence of building anything in the flood-way without getting prior approval from these agencies is the flood insurance of everyone living in the area is negated. Therefore, no construction will occur in the flood-way.



Funding: Funding research was conducted to ease the burden of creating the park once the plan has been created. This research showed that the majority of money available in the form of grants has a lot of the same requirements. These common requirements are that the design should be environmentally conscious and friendly; made to conserve and protect water; include proper and environmentally friendly stormwater management; build community; promote nature; include trails; and, be connected to nearby neighborhoods. The Land Water Conservation Fund also requires that everything listed within the plan and included in the project area must be ADA compliant.

Trending in Parks: At the first steering committee meeting, a steering committee member suggested research be done on what is trending in parks, before creating the community survey. This research was done at the same time as the funding research and the flood-plain and flood-way research. The research consisted primarily of looking at surveys that other cities and states had conducted with their citizens to see what parks the citizens preferred and why. The data from these surveys cannot be combined because none of them asked all of the exact same questions. However, there were several common elements of parks that consistently ranked at the top of the list, no matter what list they were on. These items include parks with a theme such as a pollinator park, veteran's park, a specific plant or color scheme; dog parks; parks that plan for seniors as well as younger people; have community gardens; free WiFi; disc golf; Pickleball, and environmentally friendly water conservation.

Trending in Parks Research



Theme: Polinator
Theme represented



Fig. 15 Community Garden



Disc Golf



Dog Parks



Fig. 15 Free Wi-Fi

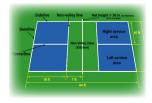


Fig. 46 Pickleball



MASTER PLAN Nature Trail Playground Restrooms Prairie Gardens Forest Shelters = Small Dog Parks **Pollinator** Channels Pay Kiosk-Food Trucks & RVs_ Circle of Life Gardens -Picnic Tables -Green Belt-Circle of Life Ğardens . Pickleball -Large Dog Parks_ Swallowtail Haven-Bee Line-Quarter Mile Trail Prairie Garden Gateway Garden & Sign_ Path of Pollinator Pollinator

Passage

Diversity

DESIGNS

Channels

DECISION PROCESS & DESIGNS

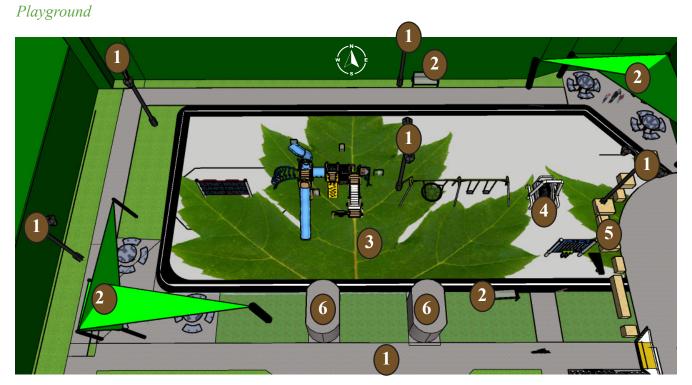
Decision Process

Steering Committee and Community Survey: The steering committee took part in creating the community survey, deciding how much the funding and trending in parks research should influence the design elements, providing needed contact information for various subjects, organizing where design elements should be placed on the property, and suggesting products to be researched for elements of the park. Overall, every element of the research, along with the community survey, were used in making the final design decisions for the park.

Designs

Playground: The community survey revealed that a playground was the highest priority for this park. The playground will be inclusive, meaning it will go beyond ADA requirements in assuring all people will be able to enjoy it. The surface will be rubber tiles that can be easily rolled on in a wheelchair. As part of this surface, there will be a black and white track that resembles a road for children in tricycles and wheelchairs alike to roll around as they play together. There will be an inclusive swing, such as the We-Go-Swing that allows up to two wheelchairs to swing, and three to four kids, or a couple of parents, to sit on the seat provided. The websites for the companies that sell these types of products generally have a page of places to contact in search of grants to help pay for them.

- Adequate lighting;
- Combination of benches and picnic tables provide view of full playground;
- 3 Inclusive surface with track for tricycles and wheelchairs;
 4 Inclusive swing;
- 5 Large rocks block cars from entering playground;
- 6 Nearby restrooms



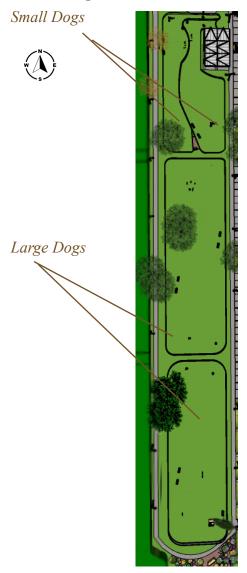
Trails: The item the citizens of Coweta listed second on their priority list was trails. And, the top three ways they said they would use the trails was for walking, running and nature viewing. It is these three uses that ended up shaping the whole park, as the trails, gardens, and existing forest (displayed more like green hedges around the park boundaries) naturally create outdoor rooms for all the other activities that will take place in the park. There will be two paved trails, not including the sidewalk around the play area, and un-paved paths to walk through gardens. The trail on the west side of the property is the Quarter Mile Trail, and will be exactly a quarter of a mile to make it easy for runners and walkers to track their mileage. It is pictured in orange below, and loops around the dog parks and shelter. The trail in the middle of the park is the Nature Trail, and is pictured in blue below. This trail is .35 miles and winds its way past and through the pollinator gardens to the Pickleball court, picnic tables, food trucks and various places to stop, rest, or play.

Paved Trails

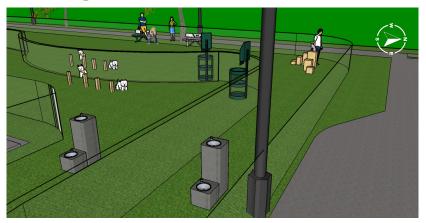




Dog Parks: Third on the list of priorities was a dog park. The park will have two sets of dog park areas, all on the west side of the property. Two fenced in areas will be for big dogs, and two fenced in areas will be for small dogs. This allows for one area to be used while the other area is healing from use. The dog parks will have obstacles such as weave poles and varying heights to jump to. However, these obstacles will all be made out of rock, so they will not rot, wear, or get stolen. There will be metal benches located under trees, within the fenced in areas of the dog parks. There will also be trash cans and dog sanitary stations. The fenced areas will have rounded corners and amenities, such as benches and sanitary stations, will not be placed near the fencing. This is to prevent dogs from being able to corner one another.



Small Dog Entrances



Above: Watering stations for humans and dogs.

Small Dogs



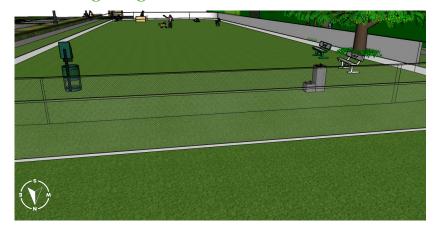
Rock pedestals for small dogs to jump to varying heights can be seen in both the upper and lower illustrations. In the top illustration weave poles made from rock, can also be seen.

North Large Dog Park



The large dog parks allow more area for large dogs to run and play sports more suited to large dogs.

South Large Dog Park



The large dog parks will have all of the same amenities as the small dog parks. As with the small dog parks, there will be benches under trees, trash cans and sanitary stations. Human and dog watering stations are also recomended here.

South Large Dog Park



In the large dog park the rock obstacles will be made out of bigger rocks than those in the small dog parks, weave poles will still be present but made from thicker, sturdier rocks and rock pedestals will be replaced with large rocks laying flat but forming a pyramid for dogs to be able to jump to varying heights on (pictured left).

Shelters: After dog parks, the next item chosen by citizens as a first priority was shelters. The park is designed to have three. All of the shelters will be sun sails such as these:

Sun Sail Options





Product quality and price vary greatly among sun sail suppliers. Many companies do not list their prices, because every item is custom. At least one company offers a 20 year warranty on the frames and 10 year warranties on the mechanical parts. These same items are also offered by other companies without a warranty.

Large Shelter

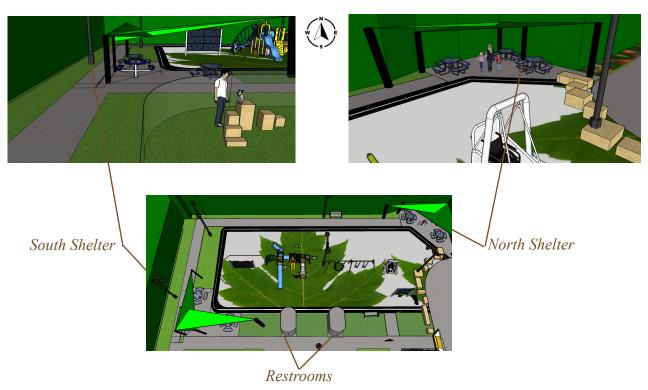


This is the view of the shelter you would see from the parking spaces in front of it. The large shelter is composed of three 15 foot by 30 foot rectangular sun sails. The dimensions of the shelter are 30 foot by 45 feet. The area under one of the sun sails is left empty for people to set up a birthday table or whatever they need. The parking for the shelters is ADA accessible and all of the shelters have some ADA picnic tables. The picnic tables will be a dark color to deter graffiti.

Food trucks and RV spaces are across the street to the east (where the red truck is in the picture below). The small dog parks wrap around three sides of the large shelter. The bathrooms and playground are across the sidewalk to the north of the large shelter. The other two shelters are at the playground.

Large Shelter





Food Trucks, RV Parking & Picnic Tables: The community prioritized food truck spaces, picnic tables and RV parking, in that order next. Since, neither food trucks or RVs will be at the park every day, they will share the same spaces. The images only show RVs but the spaces are for both RVs and food trucks. The picture below shows the food truck and RV parking as well as all of the picnic tables that are not in shelters.



Picnic Tables: There are 19 picnic tables in this design, not including those in shelters. The big shelter is across the street from the food truck to the west. There are nine picnic tables in it and three picnic tables in each of the two shelters around the playground. Some of the picnic tables in the shelters are ADA accessible. All of the picnic tables that are not in shelters are placed in the shade of trees. Three of these tables are in the garden area so people can find their own special place to themselves, in the park.

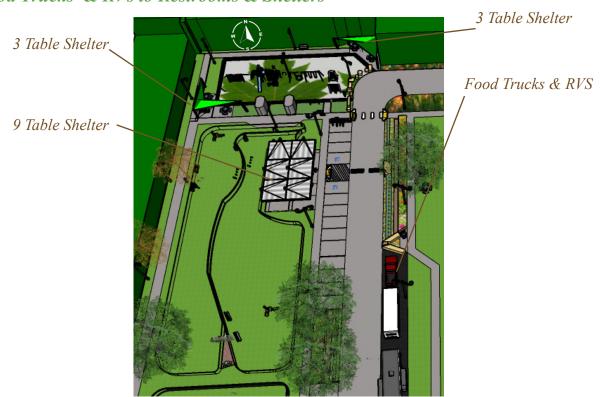
Food Trucks and RVs: These large vehicles are situated where they can parallel park on the road. They will have access to electric and water, but not sewer. The sidewalk comes in from the parking spaces from nine feet at the south end to 13 feet at the north end. At the nine foot end, there are trees between the large vehicles and the sidewalk. There are still a few trees in this area as the sidewalk travels north, and there is grass between the parking and the sidewalk. This is to prevent accidental injury to a pedestrian. When the sidewalk comes back in towards the road, there are large rocks. This is also where the large vehicle parking ends. The large rocks provide safety for the pedestrian and for the pay kiosk (for RV campers) that is located at this point.



Food Trucks & RVs Pay Kiosk



Food Trucks & RVs to Restrooms & Shelters



DESIGNS

Remaining Items Prioritized By the Community: The remaining items the community listed as priorities were: Disc Golf, Community Gardens, Guided Exercise On Trails, BBQ Grills, and though it was only a second priority, Pickleball.

Disc Golf: Disc golf goals cannot be placed in a flood-way. Adding disc golf to the areas not in the flood-way would not have provided a full course and would have created a danger of flying discs harming people.

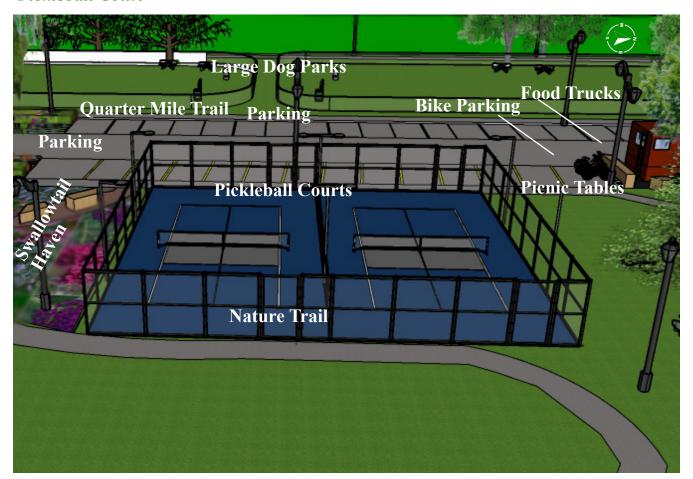
Community Gardens, Guided Exercise On Trails & BBQ Grills: These items did not rank high enough on the priority list, nor have enough tourism potential to be included in the final design of the park.

Pickleball: Pickleball did not rank as high on the priority list as any of the items listed above; however, it shows considerable potential for bringing people in from other areas to use the park. Pickleball has established clubs in Tulsa and Oklahoma City. These clubs compete with others at Pickleball events that Coweta could host. The citizens of Coweta could also start their own club to compete. This not only brings in people who play Pickleball, but their families and friends, and together they would potentially spend their money in the community.

Pickleball Play



Pickleball Court



Pickleball: The Pickleball courts are located near the west entrance of the park. The court can be entered from street-side or trail-side. Parking is located in front of the court. Bike parking and food trucks are parked immediately north of the Pickleball court with picnic tables under shaded trees beside them. Friends and family of Pickleball players can stretch their legs on either of the two trails. If they have dogs, the large dog parks are directly across the street from the Pickleball courts. Small dog parks are directly north of the large dog parks. Benches, in the form of large rocks, are provided for nature lovers in the Swallowtail Haven garden.

Everything to be known about Pickleball play, connecting with other teams, hosting tournaments and court construction can be found at usapickleball.org. For court construction, the site explains how it can be accomplished with various income levels, and for permanent or temporary use. Once the courts are created, city leaders can visit the site to list Coweta as a place to play and sign up to host matches. If the park does not offer enough parking for the anticipated crowd, guests can be shuttled in from the Broadway District, where people have a chance to shop while they await their match time.



Pollinator Theme: Findings from the many surveys states and cities have conducted across the United States, indicated that having a theme was high on the on this list of items that attract people to parks. The steering committee chose a pollinator theme. This theme ties in well with responsible water and natural resource management required for a majority of the grant money available.

Pollinators







Rain Gardens & Bioswales

Channel for Water Flow



The pollinator theme will be carried out through the use of rain gardens and bioswales. The bioswales are presented as pollinator channels in all of the designs. Rain gardens and bioswales are very similar. However, bioswales have an added gravel layer at the bottom and a channel in the center of the garden for water to flow. This makes them a good choice for ditches. According to The Watershed Project, the preferred soil mixture is 50% - 60% sand; 20% - 30% compost (not horse manure) and 20% - 30% topsoil. In both of these systems, water is slowed and filtered as it passes through or around rocks or berms, and plants and roots.



Pollinator Theme: All of the Pollinator Channels are bioswales. There are more than can be seen in the below picture angle. The flood-way cannot be excavated, so the only options are to leave it a grass field, or scatter native seed on it. To carry on the pollinator theme and encourage nature, wildflower seeds are spread in the flood-way. The north road is not in the flood-way. However, bioswales are not needed on the north end of the property since it has a dense forest on the north side of the road, and the north end of the property is higher than the south. Continuing wildflowers only on the sides of the road provides a nice contrast to the mowed grass around the Circle of Life Gardens.

Gardens & Pollinator Channels





Gateway Garden

The Gateway is located at the west entrance and includes an entrance sign, as well as a place to rest.

DESIGNS

Pollinator P assage



Path of Diversity

One can leave the Nature Trail to explore the Path of Diversity; between the wild, unmowed Prairie Gardens to the north and south, and the tamed Circle of Life Gardens on the east and west; befoe returning back to the Nature Trail



Prairie Garden Example



Lighting: There cannot be any street lights in the flood-way due to FEMA regulations, therefore the east entrance of the park will not be lit. Lighting outside the flood-way will be spaced according to the reach of the light, along the road, trails, and in the playground. All of those lights will be obtained from the local electric company. If new electric lines need to be put in they will be buried as required for the grant from the Land Water Conservation Fund. The grant from the Recreational Trails Program can pay for the burial of these lines, if the City is awarded it. Lights that have the road on one side and the trail on the other side, or have the trail on one side and picnic tables inside of gardens on the other, will have two heads. Each head will light one side. The electric company provides the city the cost of wooden poles, one head per pole and one string of above ground wire per pole, to be leased in monthly installments. Any other features must be paid for up front (32). The electric company does have galvanized metal poles as an option, which would have to paid for up front as well. Lighting on structures will be solar power lights such as the one pictured below.

Solar Light



Left: Low cost solar powered lights can easily be straped to any structure. These lights are easily installed and easily replaced.

Portland Loo





Restrooms: The restrooms will be Portland Loos. These restrooms were developed by the City of Portland, OR, in response to high vagrancy rates and high vandalization rates. The restroom are single stall, six foot wide by ten and a half feet long and eight and a half feet tall. They are galvanized steel with fixed louvres at the top and bottom to provide limited privacy. This helps illuminate restrooms and discourages people from using them for unseemly purposes. All attachments within the bathroom such as the toilet and the toilet paper holder are generic and easily replaced at low cost. The Portland Loo can either be hooked up to the city sewer and electric, or it can be self-contained with solar light. The interior light is blue so drug users cannot find their veins. The galvanized steel is treated so it repels graffiti. The bathroom is easily washed down with the hose that is in a compartment at the back of the restroom. Hand washing is accomplished by a spout on the outside of the restroom near the door (Ref.27).

The Portland Loo is a single stall restroom and cost about the same as a traditional two stall bathroom. However, the first Portland Loo was installed over 10 years ago and is still appears new, while traditional restrooms are locked down and unusable due to vandalism.

PARK PROGRAMMING

- NATIONAL STUDY
- PARKING
- FREE MARKETING
- EVENTS



NATIONAL STUDY & PARKING

National Study of Facilities: "In 2014, the *RAND Corporation* conducted the first national study of neighborhood parks (Ref. 19)." Sixty researchers sampled 174 neighborhood parks across the country in 25 major cities. The parks were visited 12 times per week, three times per day, which included two weekdays per week and both weekend days per week. Research was only conducted on days with nice weather. If weather was not pleasant on a given day, research for that day (Tuesday for example) was conducted on the same day the following week, to make up for the loss. The parks were about nine acres in size on average. The research team found that about 60% of park use is resting activities such as sitting on benches or the grass. The next most popular park use was use of trails that form a continuous loop (such as the two in the Cottonwood Park design). Not all of the parks sampled had trails, but those with trail loops had 80% more users than parks that did not. Furthermore, parks with trails loops had 90% higher levels of physical activity over the entire area of the park. The research therefore indicated that parks with trail loops not only draw people to the trails, while increasing the trail user's physical activity, but draw people to the park who do not use the trail increasing their physical activity levels as well. Other facilities such as playgrounds, basketball courts, or softball fields increased park use by about 2% per facility (Ref.19).

National Study of Marketing and Planned Events: According to the same study mentioned above, park use and physical activity also increased with the number of supervised activities and with marketing efforts. Supervised activities increased park use by 50% on average, and physical activity by 37% on average. Marketing existing park facilities with banners, posters and signs was attributed to a 62% increase in park use and 63% increase in physical activity at the associated park (Ref.19). This is the science behind the importance of keeping in constant contact with the community, regarding parks. Listed below, and on the pages that follow, are ways to acquire free marketing for the park, ways to keep the park in the communities thoughts, types of events that will encourage visitors and ways to physically get people to the park when parking space is an issue.

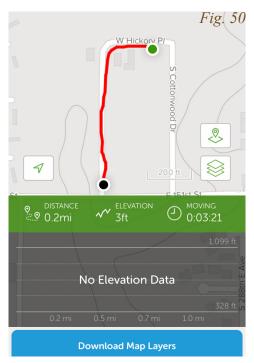
When Parking Is An Issue: Any event that requires more parking than the park can hold, is an opportunity to have visitors park in the Broadway District, where they can shop, until they can be shuttled to the park. The Broadway District is also within walking distance of the park, so once pedestrian routes are made available, people can walk from the Broadway District to the park. Every year, June through July, the University of Oklahoma Urban Design Studio in Tulsa has students looking for thesis projects to complete their Master's Degree in Urban Design. This is an opportunity for the city to reach out to the school to see if any students are interested in designing a walkable route from the Broadway District to the park. The student's work, would likely result in a design and a plan that can be used to acquire funding and cost estimates needed to make walking from the Broadway District and near by neighborhoods not only a reality for events, but also for local citizens.

FREE MARKETING

Bring Fido: On a recent internet search, for Roland Park in Coweta, OK, a link popped up for "Dog Friendly Hiking Trails in Coweta." The link was provided by, "Bring Fido," and showed a picture of a beautiful nature center. When followed, the information presented, stated the nearest dog friendly hiking trail to Coweta, was 20 miles away in Broken Arrow. Bring Fido is one of the free resources the city can use to advertise the many amenities this park has to offer. Bringfido.com is a search engine for dog lovers. Information can be "fetched" by destination, activities, events, and so on. Users can create an account or just search for what they are interested in. Users, with an account, can upload pictures of the destination, activity or event, with or without their dog. And they can rate their experience regarding the information they posted by giving it anywhere from one to five bones. Other people can review this post and rate the destination, activity or event as well. This provides an opportunity for Coweta to post pictures of the new dog parks at Cottonwood Park. Pictures can be posted of the new dog parks as they are being created, under destination. Anytime, anyone does any activity with their dog at the dog parks, it can be posted as an activity. And, when events are held at the park, and dogs are present, they can be posted as events. Bring Fido is also available in an app (Ref.20). Posting information to Bring Fido should be a priority, since the site is currently sending people who are interested in Coweta, to Broken Arrow.

All Trails: Alltrails.com is another search engine that is available as an app and is a free resource for advertising Cottonwood Park. In fact, I used this app last November to track the distance around the inside of the road within Cottonwood. The, map pictured below, can be found on the site by searching Coweta, OK and then selecting, "Community

All Trails: Cottonwood Park



Content," above the pictures of trails on the left. The app is used by trail enthusiasts and many people who just want a free app to find safe places to walk, keep track of the routes they take, miles covered, and calories they burn. City trails, or established trails, are the ones that are shown immediately when an area is searched. They are listed as, "Curated Trails." For instance, when one searches Coweta, OK., The pictures that are immediately shown on the left of the screen are, "Curated Trails." Anyone with a free membership can upload trail routes and rate them, as well as review trail routes of others and rate them (Ref.21). Anyone can post pictures they took along the trails as well.

FREE MARKETING

Pickleball Facebook Groups: All the information, connections and sharing of events that can be accomplished on usapickleball.org are great, and will be an important resource once the city starts building the Pickleball courts. However, there is a membership cost. This is fine for the City of Coweta if they need information regarding how to build the court, or how to hold different types of matches or touraments. However, the average person who just wants to play a round every once in a while, may not be willing to purchase the membership. This is where Facebook helps. Both, The Greater Tulsa Pickleball Group and The Greater OKC Pickleball Group, have Facebook pages where the City of Coweta or Coweta's citizens can make connections with others who are interested in the game and share information on events that will occur at Cottonwood Park. Coweta could also benefit from advertising the park as a place to play Pickleball for free, when the court has not been reserved by a league such as The Greater Tulsa Pickleball Group, which may charge a league fee.

Birds & Butterflies: The Tulsa Audubon Society shares information and events for both birds and butterflies. Their website and Facebook page are great resources for posting events, meeting fellow bird and butterfly enthusiasts and finding other places to market a pollinator themed park (Ref.22). The Oklahoma Ornithological Society has a Facebook page as well (Ref.23). Both societies are also good resources to offer the citizens of Coweta as a place to post information and pictures of what they find at Cottonwood Park and for the City of Coweta to share any events that might interest these groups. Another resource is Hummingbird Central. This is a national website where the city can post any hummingbird events that should be planned for the park (Ref.24).

Monarchs: Monarch butterflies have sites dedicated to them both regionally and nationally. At okiesformonarchs.org there is a community calendar on their events page anyone can use to advertise local events centered around this popular pollinator. The event does not have to occur during the time of year when monarchs are in our area and can simply celebrate the fact that monarchs exist (Ref.25). Another regional level resource for marketing Cottonwood Park's monarch habitat is the Oklahoma Friends of Monarchs Facebook group, which may be a good group to encourage Coweta's citizens to consider joining as well, in an effort to keep excitement up about all of the monarch related activities they could do at the park. Here monarch enthusiasts come together to share pictures resources, activities, and events such as those that may be held at the park in order to draw in more visitors. On the national level, monarchwatch.org has a registry for monarch way station habitats. These are pesticide free areas that provide milkweed, shelter and water for monarchs. The city can apply for the park to become a certified way station habitat and be put on a national registry so people can find the park by name of the park owner, name of the park and zip code (Ref.26). There are many other regional and national sites that will certify the park as a monarch way station, however, this is the only one that would put the park on a registry.



EVENTS

Nature Based Events: While the city gathers resources to make all of the other elements of Cottonwood Park a reality, the nature aspect of the park is already there. The city can keep excitement for the park alive by promoting nature hikes and exploration on the property, as it is. The Tulsa Audubon Society serves Tulsa's surrounding areas as well, and might be a good resource to get the first scheduled event or two started. The city can also post links to resources such as iNaturalist, eBird, Merlin Bird ID or Audubon Bird ID on the city website or on the city's Facebook page to encourage people to go out to the property, explore and share what they find. iNaturalist helps people identify natural elements such as flower species, insects, butterflies, birds and animals simply by taking a picture. The app uses artificial intelligence to translate the picture and tell the user what they are looking at (Ref.28). The other apps listed above do this for birds, and a few of them even play the bird's songs for the user, so the user can make a positive identification. These apps are used by National Geographic and the Audubon Society to encourage citizen science to create an inventory and maps of the numbers of species there are and where they are located. Every year during butterfly migrations, hummingbird migrations, BioBlitz, the Christmas Bird Count and the Backyard Bird Count, citizens get out their phones, take a hike, take pictures of nature, and send in what they see to iNaturalist (National Geographic) or the National Audubon Society. Citizen science is also used for monarchs, but a little differently. Citizens go to journeynorth. org and type in when and where they see a monarch, and what stage of life it was in, this can be done any time of year. Another option monarchs occurs every fall when the city can invite citizens to come to the park to tag monarch butterflies. Information for this can be found at monarchwatch.org. BioBlitz is a spring activity that citizens can enjoy at the park. It occurs about the third week of April every year and also employs citizen science. The BioBlitz for Oklahoma is conducted by OU using iNaturalist and eBird app (Ref.29). More information for BioBlitz can be found at biosurvey.ou.edu. The Christmas Bird Count is generally around mid-December through the first week of January. The Great Backyard Bird Count falls around the week of Valentine's Day. And, ruby-throated hummingbird migration can start as early as the first week of March and end as late as Halloween.

Fun BioBlitz Games





WITADRS WATCH TAG

How to tag a butterfly

Park Programming

EVENTS

Trail Events: Cottonwood Park's trails will add up to a little over .60 miles in combined length. This may not make it the best place to host large scale running events, where everyone is there at the same time. However, it may be perfect for virtual events. A new trend in running and walking events, even before Covid-19, is allowing participants to complete the distance at their own pace, on their own time. The participant pays a registration fee and possibly buys a t-shirt, then logs their distance as they complete it. When the participant finishes their distance, they are sent a medal. This provides people a way to work towards their goals and the city a way to make a little extra money. The trails would also be a good location for community night hikes. This gives the community an opportunity to connect with each other at a relaxed pace while experiencing all of the sights and sounds that go on in nature, at night. It may also give other users of the park a sense of security to have large organized events going on in the evenings. This is a good way to keep planned activities at the park, when the heat of summer days is unwelcoming.

Dog Events: All of the dog areas in Cottonwood Park are designed to have plenty of open space, providing the opportunity for dog competitions. Four common dog competitions performed at community parks are Hot Dog Races; K-9 Disc Toss and Fetch; Agility Trials and breed standard competitions such as American Kennel Club standards or Continental Kennel Club standards. Hot Dog Races have many names. The races line dachshunds up in a row to race against each other, and are generally short in distance. In winter a dachshund race might be referred to as a Dashing Dachshund Race. These races draw in crowds for their comic appeal, sometimes with the participants wearing costumes. Tulsa has two K-9 Disc Toss and Fetch Clubs that follow a regular tournament season. Links to both of these clubs Facebook pages can be found at TossAndFetch.com. These competitions are open to dogs of all sizes and abilities. The disc can even be rolled for older or less agile dogs. If the city would like to host breed standard competitions at Cottonwood Park, nearby connections for these types of events can be found by visiting tulsadogs.com. Connections for agility trials can be found nearby by visiting dogagilitytrials.com>oklahoma. There are clubs for this in Broken Arrow, and in Tulsa. Temporary obstacles are brought to the park for this type of event.





Pickleball Events: Pickleball could play a significant role in drawing tourism to Coweta even when there are not any tournaments going on. The Greater Tulsa Pickleball Cub has 1,200 members on Facebook, and they like to vary where they play in the Tulsa area. The Greater OKC Pickleball Club is not set up for members, but for likes. This page has 1,500 likes. If these numbers are an indication of the number of Tulsans who could play in Coweta semi-regularly and Pickleball players that might come to matches, could be of great benefit to Coweta.

Adopt-A-Garden: Caring for a garden can be a fun, fulfilling experience, particularly if

is done with a group of classmates, if it is how one comes together with their neighbors, or builds connections within their church. The gardens at Cottonwood Park will be native plants that need minimal care. However, a little care would insure they look their best. Therefore, it would be beneficial to have community partners that enjoy working in the garden who will pull weeds from time to time and relocate plants that escape their bounds. This opportunity should be offered to the community. Aside from churches, schools and gardening clubs, neighborhoods that surround the park would be an ideal place to look for volunteers to take on this role. Getting their hands in the dirt and taking part in building the environment for all of the pollinators and wildlife that will visit the park, may help them feel more connected to the park and want to protect it.

Taking an active part in the park's creation and care



Food Trucks: There are a lot of food trucks in the Tulsa area and it may be difficult to know where to start the selection process of which truck might be best for an event. If this is the case, it may be best to start by looking at roaminghunger.com. This is a catering site that works with food trucks. Once on the site, the process begins with selectiong your state. Then, select the closest city to Coweta listed, which is Tulsa. Scroll below the map and there is a long pictorial list of food trucks that service Tulsa and the surrounding areas. Click on any of the pictures to see what that particular food truck offers. Roaming Hunger's service is to book the food truck for whomever is hiring the truck, and in doing so, they offer some guarantees (Ref.30). Whether the City of Coweta has Roaming Hunger order the food trucks or hires them directly, their website is a good resource for seeing all, or most, of Tulsa's food trucks and what they offer, all in one place. Another option for seeing a variety of food trucks in one place it serching Yelp for food trucks in Tulsa. Here, they can be looked up by daytime food trucks or late night food trucks (Ref.31).

CONCLUSIONS



Cottonwood Acres is a 20 acre parcel of land steeped in the diverse ecologies of the Post-Oak and Black Jack Oak Forests, the Tallgrass Prairie and the Prairie Plains, and the Arkansas River Valley. This land being located partially in a flood-way and completely in a flood-plain reflects its location in the Arkansas River Valley. This rich bottom land, will aid in growing and preserving the gardens that will make up the pollinator theme and many outdoor rooms of the park that will be established here. Seeding the flood-way with native wildflowers will help make the future Cottonwood Park a jewel that shows clear representation of all of the regional ecologies in which Cottonwood Park is located.

Currently, the land is not connected, by trail or sidewalk, for pedestrian traffic, from any of the areas that are within walking distance. However, this is a point city leaders are aware of and plans for a trail that would connect Cottonwood Park to other areas of the city are in sight.

Decisions concerning what would or would not be placed in the park, were not taken lightly. Disc golf is the only item that ranked 2.5% or higher in the community survey as a first priority for Coweta's citizens, that did not get put into the design for the park. This element would have been included as well, if inability to build in a flood-way and lack of space had not made the task un-reasonable. Rules attached to money that could come from potential funding sources also played a significant role in making design decisions for the park. Because requirements to qualify for funding was researched early in the decision making process, the design process flowed quickly and this plan should aid the city in acquiring funding from many sources. Funding was also looked at from a long term perspective. Design elements were chosen that are less likely to be vandalized, and can be replaced with ease or minimal cost. The gardens are composed of plants that will require little to no care once established. The prairie areas will not require mowing as often as the land does now, and no pesticides or weed killers should ever be used in the park. All of these elements save money on future costs. Safety and inclusive design were other elements that were regarded with care. The park is designed for all crosswalks to be well lit, ADA accessible, protected by speed bumps with signs that read "Children At Play." Plantings near crosswalks are not to exceed two and a half feet tall, since the average height of a person in a wheelchair is three feet. The design provides for ADA accessible van parking, all shelters to have some ADA accessible picnic tables, and the playground is designed for inclusive play as well. Seating within the playground area is designed to be strategically placed for resting parents to have sight of their children at all times. The entire park is designed to be well lit and the park will be patrolled by the Coweta Police Department, as the rest of the city is. Sight lines for patrolling officers were considered as well.

This plan and the designs within it are intended to represent the desires of the citizens of Coweta. An engaged and thoughtful group of stakeholders came together in the form of a steering committee to ensure that this intention was met. They took part in the creation of the survey citizens responded to, interpreting the survey results, and every element of the decision making process. In all, this design was created for the people, by the people.



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All Designs for the park and illustrations of these designs were created by Sherry Marie Smith.

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APPENDICES

- A FUNDING
- B WILDLIFE
- C PLANTING HABITATS
- D PICKLEBALL
- E DESIGN REVEAL DAY



FUNDING

Bark For Your Park https://barkforyourpark.petsafe.com/



Land Water Conservation Fund

https://otrd-nfs-trav.s3-us-west-2.amazonaws.com/files/2020+Application+LWCF.pdf



Recreational Trails Program

https://otrd-nfs-trav.s3-uswest-2.amazonaws.com/files/ State+Parks/2021+RTP+Application.pdf



The Funders Network

https://www.fundersnetwork.org/ https://www.dropbox.com/s/l58vio452x7msrx/2.Partners%20for%20Places%20Round%2018%20Application%20 Form.docx?dl=0



PlayCore

https://www.playcore.com/funding



S.C.O.R.P

https://s3-us-west-2.amazonaws.com/otrd-nfs-trav/files/scorp-2017.pdf



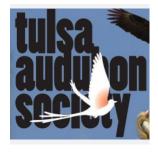
APPENDIX A

WILDLIFE

Oklahahoma Orinthological Society https://www.okbirds.org/



Tulsa Audubon Society https://www.tulsaaudubon.org/



iNaturalist https://www.inaturalist.org/



Monarch Best Management http://www.okiesformonarchs.org/wpcontent/uploads/2019/08/BMPweb-1.pdf



Oklahoma Hummingbirds

https://okc-audubon.org/oklahoma-hummingbirds/#:~:text=Three%20 species%20of%20hummingbirds%20 are,during%20the%20spring%20and%20 fall.



Wildlife Conservation

https://www.wildlifedepartment.com/sites/default/files/Oklahoma%20 Comprehensive%20Wildlife%20 Conservation%20Strategy_0.pdf



PLANTING HABITATS

Habitat Assessment Guide

https://xerces.org/publications/habitat-assessment-guides/habitat-assessment-guide-for-pollinators-in-yards-gardens



Native Plants for Native Pollinators

http://kerrcenter.com/publication/native-plants-for-pollinators/



Xerces Pollinator Checklist

https://xerces.org/sites/default/files/publications/19-050_01_Xerces-Urban-Habitat-Checklist_web.pdf



Monarch Butterfly Plant List http://www.okiesformonarchs.org/wp-

content/uploads/2019/01/EASTERN-OK-Monarch-Regional-Plant-List.pdf



ODOT Roadside Beautification

https://www.odot.org/beauty/wildflower/



PICKLEBALL

Pickleball History

https://usapickleball.org/what-is-pickleball/history-of-the-game/



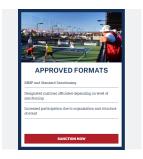
Pickleball Court Construction

https://usapickleball.org/what-is-pickleball/court-diagram/



Tournament Sactioning

https://usapickleball.org/tournament-sanctioning/



How to Play

https://usapickleball.org/what-is-pickleball/how-to-play/



Clubs

https://usapickleball.org/get-involved/communities-clubs/



Community Grants

https://usapickleball.org/get-involved/grant-program-rules/



APPENDIX D

DESIGN REVEAL DAY

Design Reveal on City of Coweta's Trash Off Day

Design Reveal Day was held April 24, 2021 in conjunction with "The Great American Clean Up" for "Keep America" Beautiful." This is locally known as "Trash Off Day." At this event, the citizens of Coweta lined up around Cottonwood Dr. at the property that will be Cottonwood Park. They stayed inside their vehicles as the Public Works Authority unloaded trash from their vehicles. The design boards were propped up against trees on the west side of the road, for citizens to view as they exited the property. The designs chosen for display were the Master Plan, Large Shelter, Dog Parks, Pickleball Courts, Trails, and the Playground.

Design Reveal



Above: View from design boards as people drop off trash.



Design boards set up for people to view as they leave.

