

OFF-LEASH DOG PARK

A COLLABORATIVE REPORT OF
ARIZONA STATE UNIVERSITY'S PROJECT CITIES
& THE CITY OF APACHE JUNCTION



This report represents original work prepared for the City of Apache Junction by students participating in courses aligned with Arizona State University's Project Cities program. Findings, information, and recommendations are those of students and are not necessarily of Arizona State University. Student reports are not peer reviewed for statistical or computational accuracy, or comprehensively fact-checked, in the same fashion as academic journal articles. Project partners should use care when using student reports as justification for future actions. Text and images contained in this report may not be used without permission from Project Cities.

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ACKNOWLEDGEMENTS

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On behalf of the ASU Wrigley Institute and the School of Sustainability, we extend a heartfelt thank you to the City of Apache Junction for enthusiastically engaging with students and faculty to confront difficult problems facing the community. Your real-world projects provide students with hands-on opportunities to apply knowledge that can create positive changes to Apache Junction's future livelihood and community wellbeing.



City of Apache Junction

300 East Superstition Boulevard • Apache Junction, Arizona 85119 • www.ajcity.net

February 20, 2018

Dear Apache Junction residents and community members,

On behalf of the City Council and the City of Apache Junction we wanted to let you know about our experience as the inaugural partner city for ASU's Project Cities program. We were extremely grateful for the opportunity to work on four projects with over one hundred-forty students, and eight university professors, in six courses. Each of the projects provided Apache Junction citizens with opportunities for involvement in community improvements.

As a smaller community, Apache Junction doesn't always have the resources to undertake every project that needs to be done. With a small investment in a Project Cities program, we can now work toward completing a few backlogged projects that have been identified in our city work programs and plans. The four projects that were undertaken in the Fall semester of 2017 (Positively AJ, Off-leash Dog Park, Sustainability and Solid Waste, and Understanding Homelessness), have been identified over a number of years as important issues in the Apache Junction community. By engaging with ASU on the four projects, the city has been able to advance each project more quickly than we otherwise would have been able to do with city employees alone.

The research and recommendations for each project gave the city objective insights into some of our ongoing challenges as a city and how we can better serve residents and visitors. The city is already using the report's findings and recommendations to take the next logical steps in moving the projects forward. We look forward to working with ASU and the Project Cities program on future projects!

With gratitude,

Jeff Serdy, Mayor



Bryant Powell, City Manager



ABOUT PROJECT CITIES

Arizona State University's (ASU) Project Cities program is a university-community partnership. For an entire academic year, faculty and students work with a single city to co-create strategies for better environmental, economic, and social balance in the places we live. Students from multiple disciplines research difficult problems chosen by the city, and propose innovative sustainability solutions that will help it achieve a better future. Project Cities is a member of the Educational Partnerships for Innovation in Communities Network (EPIC-N), a growing network of more than 30 educational institutions partnering with cities throughout the United States and world.

ABOUT SUSTAINABLE CITIES

Project Cities is a program of ASU's Sustainable Cities Network. This network was founded in 2008 to support communities in sharing knowledge and coordinating efforts to understand and solve sustainability problems. It is designed to foster partnerships, identify best practices, provide training and information, and connect ASU's research to the front-line challenges facing local communities. Network members come from Arizona cities, towns, counties, and Native American communities, and cover a broad range of professional disciplines. Together, these members work to create a more sustainable region and state. In 2012, the network was awarded the Pacific Southwest Region's 2012 Green Government Award by the U.S. EPA for its efforts. For more information, visit sustainablecities.asu.edu.

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Project Cities

Sustainability Through Local Action

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ABOUT APACHE JUNCTION

The City of Apache Junction is well situated on the eastern edge of Greater Phoenix, the twelfth largest metropolis in the United States, yet it has a small-town, Western feel. This is both intentional, and influenced by geography. Apache Junction sits at the base of the Superstition Mountains and Goldfield Mountains, and is near attractions such as the Lost Dutchman State Park, Goldfield Ghost Town, Superstition Mountain Museum, Canyon Lake, Tortilla Flat, and the historic Apache Trail. Home to 39,000 residents, the city has a population that nearly doubles in the winter, when seasonal residents arrive to enjoy its pleasant weather and unique setting.

It was named Apache Junction because it is located at the intersection of US Route 60 and the historic Apache Trail, which was used by Native Americans and later stagecoaches to traverse the Superstition Mountains, and for the construction of water-reclamation dams along the Salt River. The city also straddles Maricopa County and Pinal County. Incorporated in 1978, Apache Junction has arrived at another crossroads as it matures. While the city wants to retain its small-town character, it must prepare for an increasing population, and has set out to develop greater economic opportunities. In the spring of 2005, Apache Junction debuted the first LEED-certified city hall in Arizona. It is Apache Junction's aspirations and potential for sustainability, and the unique challenges it is facing, that form the basis of its partnership with Arizona State University's Project Cities.

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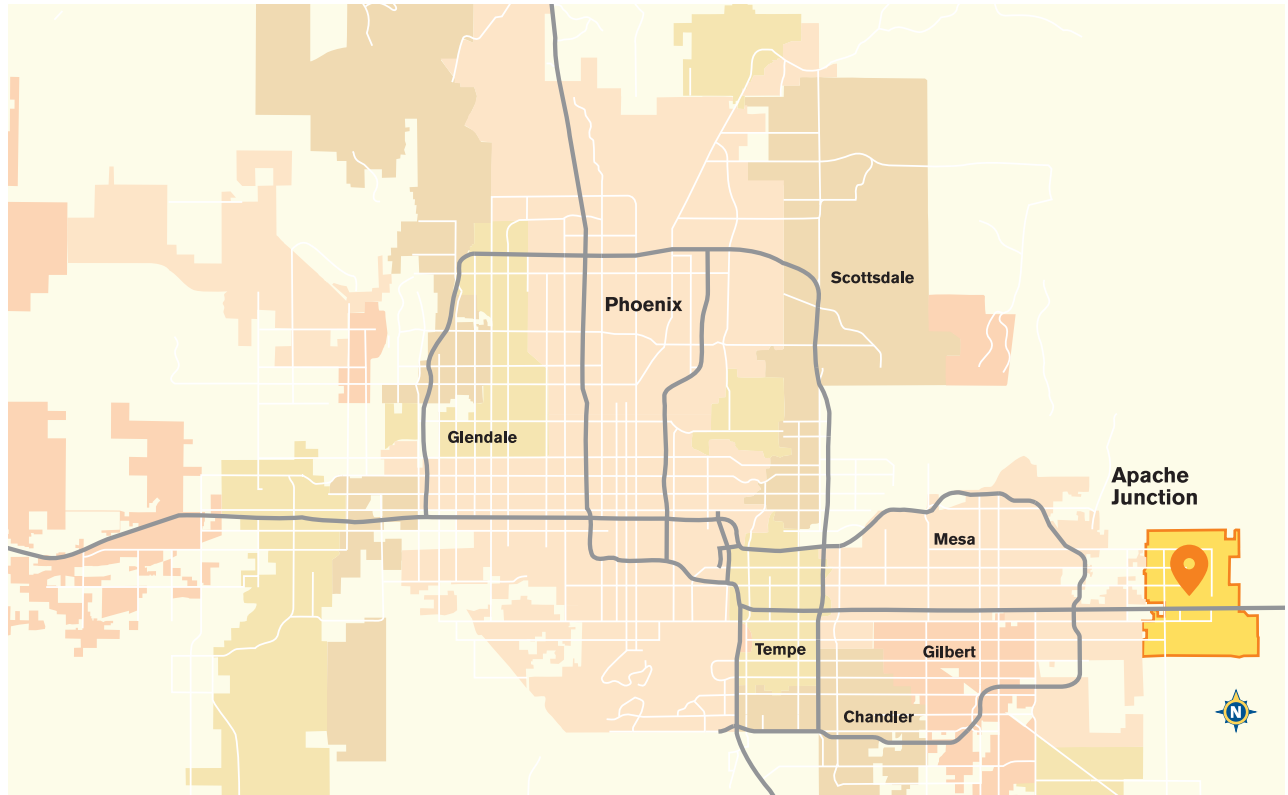
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Surrounded by Legends

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***Map of the City of Apache Junction
and Greater Phoenix, Arizona***



EXECUTIVE SUMMARY

As of 2009, approximately 39% of U.S. households owned at least one dog. Today, off-leash dog parks are the fastest growing types of parks in the country. At these facilities, which range widely in amenities, dogs are allowed off their leashes to play and interact, while owners also get the chance to exercise and build social capital. In tandem with this trend, Apache Junction has developed three plans for an off-leash dog park in the city since 2008.

Apache Junction's first off-leash dog plan was to be the fourth phase of Prospector Park, which is located on the north side of the city and has facilities including multi-use fields, restrooms, and playgrounds. Construction drawings were even made and approved in 2009 for this more than 5-acre extension. The second plan was created at the same time as part of a master plan for Silly Mountain Park, which is located in the southeast part of the city off U.S. 60 and includes a multi-use trail and botanical garden. The approximately 4.5-acre dog park portion of the facility was introduced as a result of public interest during hearings about plans for the greater park. However, these first two off-leash dog park plans came with price tags of at least \$3 million. Since both were unveiled in the midst of the Great Recession, a lack of funding halted their forward movement. The third conceptual plan, which was generated in 2015, was to be located on 1.5 acres of county property near City Hall. The cost to build it was much more modest, estimated to be nearly \$650,000, but it never received an official decision and therefore was not presented to city council.

For more than a decade, public support for an off-leash dog park in the city does not appear to have waned. However, the high costs of the two original plans are ongoing barriers to implementation. The city would like to find more affordable alternatives or new funding sources so that it can finally provide its residents and their pets with a public place to play. For this reason the fall 2017 PAF 509 Public Affairs Capstone course partnered with the city through Arizona State University's Project Cities program. Students in the course researched important elements of dog parks and alternative funding models to help Apache Junction persevere. Its graduate students performed surveys and field observations, dug through documents about off-leash dog parks and the practices of other cities, and compared plans and parks to provide this guidance.

PAF 509: The students in this course dedicated their independent master's degree capstone reports to Apache Junction's aspiration for an off-leash dog park. Each pursued their own angles on this topic, such as the potential of local public-private partnerships for funding, or which features are most important to the success of a park. Based on their research methods, the students generated their own findings and recommendations. Among these were: 1) that a dog park should be at minimum 1 acre and have a fence with a gate, benches, water sources, waste receptacles, and shade; 2) the facility could be financed with funds sourced from other delayed or under-budget projects.

The ideas and recommendations (see Table 1 and Table 2) presented by these students are kickoff points for Apache Junction. They are meant to support the city in making improvements through plans informed by research, demographics, and opportunities. The work is not comprehensive or totally cohesive, and any pursuit of the recommendations will require professional review and consideration. That being said, the course reports are meant to stimulate deeper conversations for managers, policy makers as well as staff, residents, and community groups.

Following this executive summary and the goals and recommendations of each report are introductory summaries of the final reports generated by students in the course. These cover the problem targeted, research methods used, research findings, resulting recommendations, and areas for further exploration. These are followed by select student deliverables in their entirety, which can be consulted for greater depth and more clarity on how the recommendations were reached.

OPPORTUNITIES FOR AN OFF-LEASH DOG PARK IN APACHE JUNCTION GOAL & RECOMMENDATIONS

Goal

The goal of this report is to determine how Apache Junction might fund the construction of an off-leash dog park, and what amenities a city dog park should have.

While Apache Junction has generated three plans for an off-leash dog park in the city and has strong indications of support from its citizens and officials to build one, the city has not moved forward on a facility in large part due to funding constraints.

OFF-LEASH DOG PARKS NEAR APACHE JUNCTION



Photos of off-leash dog parks near Apache Junction and their features. Clockwise from top left: Shawnee Dog Park in Chandler, Cosmo Dog Park in Gilbert, Deer Valley Dog Park in Phoenix, and Crossroads Dog Park in Gilbert. Photos by Katherine Brewer and Robert Valentine.

Recommendations for Off-Leash Dog Park Site Selection, Setup, and Amenities



Take Care with Site Size and Selection 	Include Select Amenities 
An off-leash park should be at least 1 acre in size to accommodate small and large dogs. If the park is only for large breeds, it should be at minimum a half acre. If the park is only for small breeds, it needs to be at least a quarter acre.	To start, pursue a dog park with basic amenities including fencing, a gate, shade, water, waste disposal, segregated dog pens, and seating.
Locate the off-leash dog park near a residential area, or an extension of a community park, based on the comparison of dog parks near Apache Junction.	Have signage that notifies owners of regulations and appropriate park behavior. (See Figure 7 for suggested signage language.)
The site should be on land that is flat and permeable.	The park's fencing should be at least 5 feet high.
Dedicate time and resources to ensuring an adequate surface for the facility, selected based on climate, terrain, and use patterns. Place harder surfaces in high-traffic areas.	There should be at least two sections of the park, one for smaller dogs and one for larger dogs. An alternative is sections for active and timid dogs. This helps prevent injuries and ease interactions.
	The park should have at least one water source for owners and dogs.
	Receptacles for waste should be distributed throughout the park to keep the facility clean and sanitary.
	Shading and seating should be available for dogs and owners. This could be in the form of trees, a ramada, picnic tables, or benches. Shade was the top priority of surveyed pet owners.
	If funding allows, also consider a water feature that dogs could use for bathing or cooling off. These range from kiddie pools to ponds.

Table 1. Student recommendations regarding site selection, site features, and amenities to prioritize.

Recommendations for Which Plan to Pursue and How to Fund an Off-Leash Dog Park

Which Plan to Pursue 	How to Fund the Dog Park 
Pursue a dog park with basic features to start, due to limited funds. It should have fencing, a gate, shade, water, waste disposal, segregated dog pens, and seating.	Allocate funding from other Parks and Recreation projects that can withstand a cut in costs, or from delayed projects.
Alternatively, use the County Complex Dog Park as a trial run. Its lower cost is a strength, as is its existing connection to water and electricity infrastructure. Through this trial run, the city can find out if an off-leash dog park is still in demand.	Consider approaching larger-scale businesses, like Banner Baywood Center, about a public-private partnership. Do not look to smaller Apache Junction businesses for significant partnerships.
If price were not an issue, Silly Mountain Dog Park would be most favorable. While it is slightly less convenient for Apache Junction residents, its somewhat isolated location would attract more dog owners to the city, and reduce public safety risks.	Include the park in an overall park project.
	Consider structuring a fundraising plan using bonds.
	Charge local animal services and businesses a fee for advertisements to help with upkeep costs while building community partnerships and awareness.
	Appeal to the public for minor costs or donations. This would compel businesses and citizens to take an active interest in the dog park's creation.
	Ask for donations for material items, such as water bowls, a kiddie pool, trash cans, and seating. This would help save a small amount of cost and build community investment.
	Consider implementing a dog park membership fee. This can be a protective barrier to dog-borne illness if membership requires proof of vaccination.
	Consider a partnership with resident volunteers who maintain the dog park through visitor hours and help fundraise for construction, services, and upkeep.

Table 2. Student recommendations for off-leash dog park plans to pursue and how to fund the chosen plan. Due to students generating individual reports, some recommendations are not directly aligned. It is up to the city to choose the most pertinent and preferred recommendations.

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FACULTY MALCOLM GOGGIN
SCHOOL OF PUBLIC AFFAIRS

509 PUBLIC AFFAIRS
CAPSTONE
FALL 2017

Opportunities for an Off-Leash Dog Park in Apache Junction

ACKNOWLEDGEMENTS

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INTRODUCTION



For the last decade, Apache Junction has aspired to build an off-leash dog park for its residents and their furry friends. While the city has developed three promising plans, funding issues stymied momentum in every case. However, the endeavor has ongoing support from residents and city council. Because of this, the students of PAF 509: Public Affairs Capstone in the School of Public Affairs at Arizona State University set out to assist Apache Junction in determining which dog park plan is most promising, what features and amenities should be top priorities, and how the city might secure funding to make this park a reality. This report describes the methods these students used and their results.

The seven students involved in this report worked independently, and each generated his or her own findings and recommendations in a capstone project for a Master in Public Administration or Master in Public Policy degree. Therefore, each student approached the topic from a different angle. All began their research by reviewing literature to gather data on Apache Junction and off-leash dog parks. Then the students proceeded to employ an array of research methods, including the qualitative methods of surveying and field observation, and document-based methods of comparison. Using these methods, the students generated findings on the most important aspects for the city to consider in off-leash dog park design and operation, and potential avenues for funding.

Through this project, the city wanted to understand how it might fund the construction of an off-leash dog park, and what amenities should be present at city dog parks. Accordingly, each student generated recommendations relating to their findings, including but not limited to: 1) ensuring the site is at least 1 acre in size and offers water, shade, and seating; and 2) securing funds via cost savings and delays on other city projects. Importantly, it is up to Apache Junction to identify which report and recommendations align best with its interests, or determine how to combine these results into a cohesive action plan. Students also had ideas to further explore that would require more outreach or assessment but might result in new paths forward.

The remainder of this “Opportunities for an Off-Leash Dog Park in Apache Junction” section explains the methods used by the students and their findings. It then delves into their recommendations. The report wraps up with areas for further exploration and a concise conclusion, followed by select student reports in their entirety.

PROBLEM

While Apache Junction has generated three plans for an off-leash dog park in the city in the last decade and believes it has the support of its citizens and select officials to build one, the city has not moved forward on such a facility, in large part due to funding constraints.

METHODS

To better understand the general requirements of off-leash dog parks, assess Apache Junction's proposals, and locate possible sources of funding, students in PAF 509: Public Affairs Capstone used a variety of research methods. These included the general method of literature review, which they used to gather significant background information like infrastructure considerations, potential issues presented by dog parks, and how other cities have generated funding. They also used community-based methods to research the realities of local dog parks and the proposed locations in Apache Junction, as well as explore the potential for financial support from interested citizens and local businesses. Finally, two students used their literature-based and community-based research to compare case studies as a way to assess nearby parks and the city's existing plans.

“What dog park features are essential to the function of a dog park? Which features are the costliest to implement and maintain?”

Before conducting their research, students identified background issues to explore, but also specific questions they wanted to answer. Such questions identified by one student were: “What dog park features are essential to the function of a dog park? Which features are the costliest to implement and maintain? Which dog park features do Apache Junction citizens desire the most?” (McCarter report, page 3-1) Another such focus was

“How did other Arizona cities apply different fundraising strategies to raise resources to construct their own dog parks?” (Brewer report, page 2-5) The research methods they used to answer such questions are explained below.

Document-Based:

Literature review: Literature review requires compiling and analyzing information and data related to a specific subject. In this case, literature means the broad scope of documents and written work. For this report, students reviewed academic papers; city resources; case studies; and educational and regulatory materials produced by city, county, and federal governments.



Community Engagement:

Survey: This human-centered research method involves gathering structured information from participants about a specific topic. For this project, a student surveyed visitors at the Veterinary Centers of America (VCA) Apache Junction Animal Hospital. The surveys were distributed to people in the waiting room by contacts at the animal hospital over the course of a week. Survey questions regarded overall interest in a dog park, what features of a dog park are most important, and if dog owners would be willing to pay a service fee. The student received 62 completed surveys.

Needs and Benefits Assessment: This research method involves engaging with a defined group to identify and assess needs or benefits regarding a specific topic. For this report, one student sent surveys via email to 21 for-profit and nonprofit organizations in Apache Junction to assess their levels of interest in partnering with the city to build and maintain off-leash dog park. The student also conducted follow-up calls to get feedback and encourage recipients to take part in the survey. Questions included length of time in business, yearly annual revenue, whether its current location was dog-friendly, if the business would thrive in a park environment, and if the business would commit to inspections to maintain the “upkeep of location.” The goal was to determine the level of local interest in public-private partnership. However, none of the target audience responded to the survey. Respondents may have been deterred by the survey's focus on the businesses or organizations being physically located in a city park, but why they didn't respond is unclear. This lack of response does provide insight, albeit limited, regarding the potential for partnership (Bowdren, page 4-1). This is explored in the findings section.

Field observations: This is an on-the-ground research method. It requires researchers to visit a location to gather situational information and document how the facilities are used. One student compared six dog parks in cities near Apache Junction by making field observations at each location. This student visited each for 30 minutes between late morning and early afternoon to watch how dogs used the space, how intensively features were used, and gathered background information like the park's size, context, parking availability, fencing, and amenities (Brewer, page 2-11). Another student visited the proposed locations of dog parks in Apache Junction to get greater contexts for each area, like physical features, frequency of use, and available infrastructure (Goodwin report, page 1-1).

Informal communications: While this isn't a formal research method, it is a valuable source of information. One student communicated with Apache Junction officials to get greater insight into the three proposed dog park plans. Another student communicated informally with Parks and Recreation officials from cities with existing dog parks that this student

Communicating with officials was an effective method for gathering information not available in documents, at the parks, or online.

planned to compare (see “comparative analysis” below). Doing so allowed the student to generate data about the kinds of fundraising strategies the cities implemented in order to build, and in some cases maintain, their dog parks. The same student inquired about the year the dog parks opened and their sizes, if this information was not available elsewhere. Communicating with officials was an effective method for gathering information not available in documents, at the parks, or online (Brewer, page 2-11).

Combined:

Comparative Analysis: This method involves comparing specific examples of desired outcomes as executed by other entities to gain greater insight. The idea is to look for inspiration for how to implement something or make changes, rather than having to “reinvent the wheel.” In this case, a student compared six dog parks located within 30 miles of Apache Junction in Mesa, Gilbert, and Chandler. (This student originally intended to include parks in Tempe but they were eliminated due to time constraints and the city's unresponsiveness.) The student compared funding models and facility features (Brewer, page 2-10).

SWOT Analysis: SWOT analysis is a practice used to determine something's “strengths, weaknesses, opportunities, and threats” by determining individual factors for each of these categories. In this case, one student performed a SWOT analysis of the three proposed dog park options for Apache Junction. To conduct the analysis, this student took information gathered through resource assessment and community engagement, and selected traits—also called factors—for each SWOT category of each plan. For example, for the SWOT analysis of the County Complex Dog Park proposal, a strength factor was “easily accessible” and a weakness factor was “will need constant upkeep” (Goodwin report, page 1-7).

FINDINGS

Through these methods, students were able to identify benefits and risks of off-leash dog parks, necessary features and desirable amenities, funding opportunities, and which plans are the most promising to pursue.

Benefits and Risks

The benefits of off-leash dog parks include that these facilities are perceived to enhance the socializing abilities of dogs and give owners opportunities to interact. These interactions lead to growth in a sense of community and provide increased social capital for residents. Further, off-leash dog parks allow dogs to exercise in safe environments away from the private space and property of other residents. **Increased exercise and interaction reduces problematic behavior in dogs like excessive barking.** Owners can also get exercise at the park with their pets. According to one student who grew up in Apache Junction, the opportunity to exercise pets is important to long-term visitors who bring their pets with them, as it is good for their health and that of their animals. However, these **seasonal visitors have little opportunity to exercise their dogs** due to limited outdoor space and surrounding infrastructure where they reside. An off-leash dog park would provide visitors and residents abilities to socialize and exercise their dogs while building social capital.

However, **off-leash dog parks also have potential risks that include parasites, odors, dog bites or fights, contaminated runoff, and noise pollution.** Such issues emphasize the importance of a well-planned and maintained dog park that is appropriately situated in the community. Further, the ability of owners to control their dogs can be affected by whether or not they can keep them in sight, a factor optimized by flat land. Also related to a well-planned park are **adequate surface maintenance, as well as appropriate signage and waste receptacles, which help prevent odor and parasites.** Requiring all owners to vaccinate dogs using the park is an additional risk-prevention method. Some parks have pods that enable a rotational-use schedule for surface maintenance, which also helps prevent wear that can contribute to runoff issues.


Necessary Features and Desirable Amenities

The issue of wear highlights the importance of two simple aspects of the park, which are its drainage and substrate choices. **Adequate planning and maintenance for dog parks are critical to their success.**

Without appropriate drainage, dog parks can quickly become muddy, unhealthy for pets, or unattractive, which will discourage users. The substrates used for the park's surfaces are also incredibly important, as they determine how much upkeep a park will require. If poorly chosen substrates degrade, leading to a park that looks dirty or neglected, residents will be discouraged from visiting with their pets. In contrast, **the use of durable materials for areas that will have high foot traffic may have a greater upfront cost, but will preserve the park's appearance and reduce maintenance costs in the long run.** High-traffic areas include entrances, exits, watering stations, shaded areas, benches, picnic tables, signage, and waste receptacles. (See figure 1 for an example.) Options for hard surfaces include concrete, pea gravel, or decomposed granite. Decomposed granite and pea gravel are also permeable for stormwater absorption, easy on dog joints, and environmentally friendly.



Figure 1. A bench with concrete slab within the dog park portion of Deer Valley Park in Phoenix. Photo taken by Robert Valentine.



Such elements are necessary for the success of a dog park. However, there are other features that improve the experience and success of a dog park. A student who surveyed visitors to VCA Apache Junction Animal Hospital got 62 completed surveys. Of those surveyed, 62 filled out portions of the survey correctly, while 29 filled it all out correctly, including the questions that required ranking items from one to ten. Of the 29 who correctly responded to the amenities ranking questions, **44% said shade was the most important amenity at a dog park. Water was the second in importance, and waste stations were third.** (See Figure 2 for how all ten of the amenities listed on the survey ranked.)

THE RANKING OF OFF-LEASH DOG PARK AMENITIES BY SURVEY PARTICIPANTS

- 1 Shade
- 2 Water
- 3 Dog waste stations
- 4 Segregated areas for dogs
- 5 Parking for patrons
- 6 Seating
- 7 Ponds for dogs to play or bathe in
- 8 Restrooms for pet owners
- 9 Dog play equipment
- 10 Lighting

Figure 2. The order of priority in which 29 survey responders ranked these ten amenities. Of all 62 responders, 68% had visited a dog park and 95% lived in Pinal or Maricopa counties.

The rankings from these survey respondents closely align with the results of the student who did field observations at six parks within 30 miles of Apache Junction (Brewer, page 2-1): Cosmo Dog Park and Crossroads Dog Park in the Town of Gilbert, Countryside Dog Park and Quail Run Dog Park in the City of Mesa, and Nozomi Dog Park and Shawnee Dog Park in the City of Chandler (see Figure 3). This student found that most of these parks were popular with dog owners. Cosmo Dog Park in Gilbert was the most popular, attracting visitors from up to 40 minutes away (see Figure 4), while Crossroads in Gilbert appeared the least popular.



Figure 3. A view of the active dog and timid dog areas within Shawnee Park in Chandler. The timid dog area is fenced off centrally within the active dog area. Photo by Katherine Brewer.



Figure 4. A view of the lake and dog beach found within Cosmo Dog Park. Photo by Katherine Brewer.

Regardless, each park had similar features: easily accessible parking, water sources, dog waste disposal materials and receptacles, a double-gate system (which requires one gate to be closed at all times to prevent dogs from escaping), perimeter chain link fences that were at least 5 feet tall, and posted signs detailing municipal rules and policies for appropriate behavior (See Figure 5). **Each also had lighting for after-dark park use**, which is desirable in Arizona when high summer temperatures limit daytime opportunities to go outside. **At these parks, most dogs were in “active dog” areas and made significant use of water resources.** Every park had a dual-use water fountain for owners and pets, which got significant traffic. However, these were typically located at entrances. If parks had widely distributed water bowls, dogs drank from these most. Another popular amenity was a kiddie pool where dogs cooled off, though only select parks had these. **Knowing the minimum amenities a dog park should have helps ensure the facility will be successful, and also provides insight into what unnecessary amenities can be excluded from plans to save the city valuable funds.**



Figure 5. A sign at Cosmo Dog Park detailing rules and regulations of the dog park. Mesa and Chandler each have their own variations of a “rules and regulations” sign. Photo by Katherine Brewer.

Funding:

As for fundraising, **three strategies were used to construct five of these parks. They were: 1) a capital improvement plan, 2) inclusion in larger park masterplans and development, and 3) park bond funds.** None made use of private funds. However, private partnerships have worked for other parks and recreation projects in Maricopa County, including Adobe Dam Regional Park, Estrella Mountain Regional Park, and Lake Pleasant Regional Park. The student who set out to perform a needs and benefits assessment hypothesized that businesses with strong ties to the community may want to contribute to an off-leash dog park in Apache Junction, or that such a partnership might provide more financial security. However, **the survey got zero responses, signifying no expressed interest from the organizations contacted in a public-private partnership** for building a multi-use venue or park. Organizations provided little to no engagement with the student (Bowdren report, page 4-12). Additional surveys may verify this or reveal other insights. If interest were expressed, Maricopa County does have Request for Proposal guidelines for creating such a partnership.

Even if local organizations aren't interested in supporting an off-leash dog park in Apache Junction, **a successful dog park does require a core group of residential stakeholders.** These residents can be engaged in a number of ways that also generate some funds for startup costs or maintenance. One example is inviting residents and businesses to purchase bricks that will be personally engraved prior to use for construction. Additionally, **76% of survey participants from VCA Apache Junction Animal Hospital indicated they would be willing to pay an annual membership fee to use an off-leash dog park,** with the most popular amount being no more than \$10. (See Figure 6 for a breakdown of the amounts survey participants were be willing to pay.) An additional 16% were unsure if they would be willing to pay such a fee and 8% would not be.

NUMBER OF SURVEY RESPONDENTS WILLING TO PAY A DOG PARK FEE

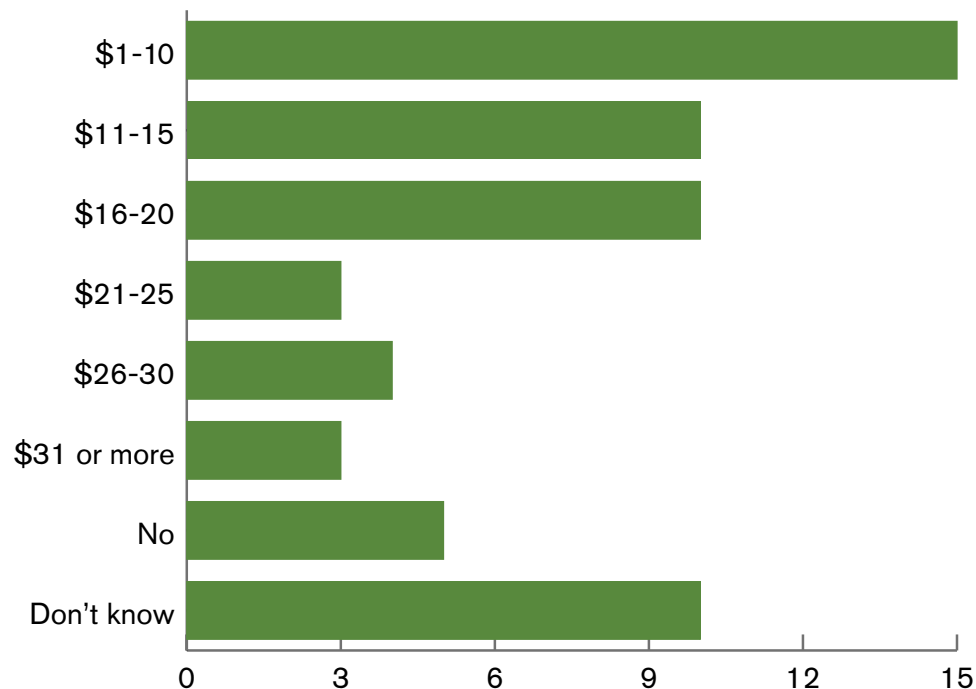


Figure 6. The amount survey participants were willing to pay in annual dog park fees (McCarter, page 3-17).

Park Selection:

As for determining which of Apache Junction's plans is most promising, that depends on Apache Junction's long-term plans and priorities. According to the student who performed the SWOT analysis, **all plans offer accessibility and will likely receive the same amount of visitors.** County Complex Dog Park's lower cost is a strength. So is its connection to water and electricity infrastructure, which reduces construction costs. However, its smaller size is a weakness, as it would limit expansion and require more frequent and labor-intensive upkeep. Because of this assessment (see Table 1), the student believes **County Complex Dog Park would be best used as a test case.** Conversely,

the larger space and greater isolation of Silly Mountain Dog Park are strengths (see Table 2). Its space provides more flexibility and less frequent and less labor-intensive maintenance. Its isolation reduces chances of negative interactions with the surrounding community.

SWOT ANALYSIS OF THE COUNTY COMPLEX DOG PARK PLAN

Internal	<u>Strengths</u> <ul style="list-style-type: none"> ▪ Easily accessible ▪ Constant visitors ▪ Convenience ▪ Connected to preexisting infrastructure ▪ Cheaper than other plans 	<u>Weaknesses</u> <ul style="list-style-type: none"> ▪ Small comparatively ▪ Will need constant upkeep ▪ Lack of parking*
External	<u>Opportunities</u> <ul style="list-style-type: none"> ▪ Park in middle of city center could serve as a “trial run” ▪ Developing city codes/ordinances to set a framework for parks 	<u>Threats</u> <ul style="list-style-type: none"> ▪ Higher proximity to living ▪ Higher incidents of hazardous waste ▪ Higher expectation of cleanliness ▪ Risks associated: <ul style="list-style-type: none"> + Liability of dog fights + Liability of dogs biting humans + Legal ramifications

Table 1. One student’s SWOT (strengths, weaknesses, opportunities, threats) analysis of Apache Junction’s proposed County Complex Dog Park plan (Goodwin, page 1-11).

**While the student stated a lack of dedicated parking as a weakness of this conceptual plan, Liz Lazenbach, the Director of Parks and Recreation at Apache Junction, pointed out that there is a lot of parking in the County Complex where this park would be located, and anyone visiting would be able to make use of the empty spaces available during the day. While the complex is closed evenings and weekends, this parking would still be open for dog park visitors to use.*

SWOT ANALYSIS OF THE SILLY MOUNTAIN DOG PARK PLAN

Internal	<u>Strengths</u> <ul style="list-style-type: none"> ▪ Exclusivity to dog owners ▪ More flexibility in development ▪ Doesn't encroach on the community due to its isolation ▪ Volume not an issue ▪ Plan seeks revolving pods 	<u>Weaknesses</u> <ul style="list-style-type: none"> ▪ Monetary costs associated with new park ▪ Costs may be far greater due to the absence of many amenities ▪ Remove wildlife ▪ Remove vegetation ▪ Inconvenient location ▪ Needs established source of ongoing maintenance
External	<u>Opportunities</u> <ul style="list-style-type: none"> ▪ General partnerships in profitability ▪ Go-to place for other nearby rural communities ▪ Accessibility to surrounding towns/cities ▪ Establishing a source of ongoing maintenance (could be volunteer-based v. city-based) ▪ Developing city codes/ordinances to set a framework for parks 	<u>Threats</u> <ul style="list-style-type: none"> ▪ Encroach on hiking trails ▪ Encroach on wildlife ▪ Coyotes need be deterred ▪ Risks associated: <ul style="list-style-type: none"> + Liability of dog fights + Liability of dogs biting humans + Legal ramifications

Table 2. One student's SWOT (strengths, weaknesses, opportunities, threats) analysis of Apache Junction's proposed Silly Mountain Dog Park plan (Goodwin, page 1-10).

SWOT ANALYSIS OF THE PROSPECTOR PARK PHASE 4 DOG PARK

Internal	<u>Strengths</u> <ul style="list-style-type: none"> ▪ Already an established park with amenities ▪ Plenty of available land ▪ Not an issue of getting traffic there ▪ No need for advertising ▪ Plan seeks revolving pods 	<u>Weaknesses</u> <ul style="list-style-type: none"> ▪ Monetary costs associated with new park ▪ Remove wildlife ▪ Remove vegetation ▪ Needs established source of ongoing maintenance ▪ Saguaro cactus
External	<u>Opportunities</u> <ul style="list-style-type: none"> ▪ Expanding usability and flexibility of the park ▪ Establishing source of ongoing maintenance (could be volunteer-based v. city-based) ▪ Possibility of further extension of the park with public support ▪ Developing city codes/ordinances to set a framework for parks 	<u>Threats</u> <ul style="list-style-type: none"> ▪ Fear of dogs ▪ Encroach on natural vegetation, threat to ecosystem ▪ Lack of funding ▪ Risks associated: <ul style="list-style-type: none"> + Liability of dog fights + Liability of dogs biting humans + Legal ramifications + Biohazard for the rest of the park if dogs are poorly controlled, leading to a lack of cleanliness

Table 2. One student's SWOT (strengths, weaknesses, opportunities, threats) analysis of Apache Junction's proposed Prospector Park Phase 4 Dog Park plan (Goodwin, page 1-9).

RECOMMENDATIONS

After examining their research findings, each student generated their own recommendations for Apache Junction. The main areas of interest were which type of plan to pursue, what amenities should be prioritized, and recommendations for possible fundraising models. Since each student approached the topic from a different angle and with different methods, their recommendations both overlap and diverge.


Accordingly, student recommendations are useful to the city, but will require some discretion. It is up to Apache Junction to determine which recommendations seem most applicable and beneficial. Each recommendation requires the city to collect further input from residents and explore in more detail costs and benefits. This section presents paths for the city to consider, but it is up to Apache Junction to further define which is best for its priorities, constituency, and budget.



Key Features of an Off-Leash Dog Park



1. An off-leash park should be at least 1 acre in size to include accommodations for both large and small dog breeds. (Brewer, page 2-16).
2. If the park is only for large breeds, it should be at minimum a half acre.
3. If the park is only for small breeds, it needs to be at least a quarter acre (McCarter, page 3-20).
4. Locate the off-leash dog park near a residential area or an extension of a community park, based on the comparison of dog parks near Apache Junction.
5. The site selection should be on land that is flat and permeable.
6. Dedicate time and resources to ensuring an adequate surface for the facility, selected based on climate, terrain, and use patterns. For example, harder surfaces near the entry, under benches, and by water fountains help prevent wear and muddy conditions. If surface materials are not considered in advance, this can result in high cost of maintenance or a rundown park that residents are less inclined to use (McCarter, page 3-20).
7. The park should have signage notifying owners of regulations and how they and their dogs should behave within the park. (See Figure 7 for suggested signage language.)

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8. The park's fencing should be at least 5 feet high.
 9. There should be at least two sections of the park, one for smaller dogs and one for larger dogs. An alternative is sections for active and timid dogs. This helps prevent injuries and ease interactions.
 10. The park should have at least one water source for owners and dogs.
 11. Receptacles for waste should be distributed throughout the park to keep the facility clean and sanitary.
 12. Shading and seating should be available for dogs and owners. This could be in the form of trees, a ramada, picnic tables, or benches.
 13. If funding allows, also consider a water feature that dogs could use for bathing or cooling off. These range from kiddie pools to ponds.

SUGGESTED SIGNAGE LANGUAGE FOR AN OFF-LEASH DOG PARK

- Assumed responsibility of dogs by their owners.
- Licensure, vaccination, and visible tag requirements.
- Recommendations for dogs to be spayed or neutered.
- An age minimum for dogs and children to enter the park to minimize safety and health risks.
- Restrictions on food, alcohol, or beverages that can cause potential harm and safety concerns to dogs and their owners.
- Consequences for aggressive dog behavior that can include removal from the park.
- Requirements that owners clean up after their own dogs.

Figure 7. Suggested language to be posted on signage at the off-leash dog park (Brewer, page 2-16).




How to Fund an Off-Leash Dog Park:

1. Allocate funding from other Parks and Recreation projects that can withstand a cut in costs, or from delayed projects.
2. Include the park in an overall park project. (Mesa did this for its Countryside Dog Park. However, it was paid for with cost savings from certain projects and delays in others, so Mesa's funding strategy aligns with the first recommendation (Brewer, page 2-17).)
3. Consider structuring a fundraising plan using bonds.
4. To help with upkeep costs, charge a fee for advertisements, in which local animal services and businesses may be interested. This creates a revenue stream while building community partnerships and awareness. Cosmo Dog Park in Gilbert does this.
5. Consider approaching larger-scale businesses, like Banner Baywood Center, about a public-private partnership. Do not look to smaller Apache Junction businesses for significant partnerships. (Bowdren, page 4-1) (See Figure 8.)
6. Appeal to the public for minor costs or donations. This would compel businesses and citizens to take an active interest in seeing the dog park come to fruition.
7. Ask for donations of material items such as water bowls, a kiddie pool, trash cans, and seating. This would help save a small amount of cost and build community investment.



Figure 8. The welcome sign at the City of Phoenix's Washington Park, which reflects that PetsMart donated \$100,000 to the city for five dog parks in exchange for being able to advertise at them, according to student Robert Valentine.

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8. Consider implementing a dog park membership fee. While this is not likely to generate significant income, it can be a protective barrier to dog-borne illness if membership requires proof that dogs were vaccinated (McCarter, page 3-23).
 9. Consider a partnership with resident volunteers who maintain the dog park through visitor hours, and help fundraise and collect donations for construction, services, and upkeep. While this model may not cover the cost of Apache Junction's larger plans, it worked for a smaller off-leash dog park within a city-operated park in Lynchburg, Virginia (Bowdren, page 4-20).



Which Off-Leash Dog Park Plan to Pursue

The student who performed a comparative analysis of Apache Junction's three off-leash dog park plans made her decision based on their potential to attract visitors and lower public safety risks. Another student recommended the park be in an area away from neighborhoods, which aligns with the City of Portland's guidelines for site selection of off-leash dog parks. In contrast, a third student suggested the park be based near a residential area or extension of a community park as this student found these types of locations to be the most popular. This reflects how recommendations diverge, and that it is up to the city to choose which align best with its priorities.

1. Pursue a dog park with very basic features to start, due to limited funds. It should have fencing, a gate, shade, water, waste disposal, segregated dog pens, and seating (McCarter, page 3-20).
2. Alternatively, use the County Complex Dog Park as a trial run. Its lower cost is a strength, as is its existing connection to water and electricity infrastructure. Through this trial run, the city can find out if an off-leash dog park is still in demand.
3. If price were not an issue, the Silly Mountain Dog Park is most favorable. While it is slightly less convenient for Apache Junction residents, its somewhat isolated location will attract more dog owners to the city, and will reduce any potential public safety risks (Goodwin, page 1-1).

AREAS FOR FURTHER EXPLORATION

The city may also want to conduct its own needs and benefits assessment survey of local businesses if it is still interested in public-private partnerships. If a survey is conducted by another ASU student, they should consult with Apache Junction officials prior to selecting or reaching out to organizations, since city leadership's knowledge about local organizations will likely improve the response rate. City officials could also help formulate survey questions to ensure they aren't misperceived and that they align with city concepts and goals. In order to increase its response rate, this survey should be pre-tested before being distributed to local business owners.

Another avenue Apache Junction might consider for its off-leash dog park is adding it to the Multi-Generational Center (MGC) the city operates at 1035 North Idaho Road. There is a large area located directly east of the MGC that has promise for such a park. Currently, MGC includes a fitness center, class and meeting rooms, and a game room, and is located within walking distance of City Hall, the public library, and senior center. At this location, residents would easily be able to access the park. If adding an off-leash dog park to the center were considered, the city should conduct an environmental survey of the area to confirm it is indeed appropriate before setting forth plans. To fund the construction, the city could consider a municipal bond for a capital improvement project, which would cover updating the multi-generational center and creating an off-leash dog park.

If it is possible to pair the construction of an off-leash dog park with the construction of other public venues, the city might also consider building an off-leash dog park as part of a new multi-use venue at Silly Mountain Park or Prospector Park. The project could provide economic benefit to less-populated areas. However, much more consideration and assessment would be required before any recommendation could be made.

CONCLUSION

Apache Junction has no off-leash dog park, but it has intended to build one since 2008. However, each of the city's three plans for such a facility have been waylaid. For their culminating experience projects in PAF 509: Public Affairs Capstone, seven graduate students conducted independent research and, based on their findings, generated recommendations for the city about how to move forward. These included recommendations to help the city select the best plan, such as prioritizing necessary features like a double-gated entrance, shade, and water sources. They also included looking to either a greater parks project, or cost savings and delayed projects, for funding. However, Apache Junction will need to fill in the details to determine which recommendations align best with the city's goals and opportunities. Once it does so, Apache Junction can look forward to providing its residents with a well-planned and long-awaited off-leash dog park.

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Apache Junction Off-Leash Dog Park Proposal

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Abstract

This paper aims to investigate, analyze, and recommend one of three distinct sites within the City of Apache Junction to serve as the location for the city's off-leash dog park. The locations being analyzed for a potential park location are as follows: (1) Prospector Park Phase 4 Dog Park, (2) Silly Mountain Dog Park, and (3) County Complex Dog Park. The recommendation for which site to utilize will come through literature review describing potential issues arising out of off-leash dog parks, SWOT analyses of multiple locations, and a brief survey of residents with dogs within the current park systems. Overall, the SWOT analyses in addition to the surveys reveal that the best choice is the Silly Mountain Dog Park.

Keywords: off-leash dog park

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Graham and Glover (2014) define dog parks as “provid[ing] a leisure-oriented urban landscape where owners can legally bring their dogs to exercise and socialize off-leash” (p. 218). It wasn’t until the early 1980’s that dog parks surfaced in response to growing municipal adoption of leash laws (Matisoff & Noonan, 2012, p. 29). By developing dog parks, cities are simultaneously responding to community demand, protecting the interests and well-being of their residents, and providing individuals with the ability to safely let their dogs roam free. While there is demand and a municipal desire to build a dog park in the City of the Apache Junction, the plans have yet to be executed.

The City of Apache Junction is a small community located on the outskirts of the Phoenix metropolitan at the base of the Superstition Mountains. The city and its amenities serves an approximate population of 40,000 with an additional 10,000 living on the surrounding Pinal County land. It was in 2008 that the city first developed and approved master plans for two separate off-leash dog park facilities: Silly Mountain Park and Prospector Park. Unfortunately, due to the sheer size and scope of the projects, the costs far exceeded what was feasible for the city. It wasn’t until 2015 that the city’s Parks and Recreation Department revisited the idea of an off-leash dog park facility. A new plan was designed with costs far below the other two plans. At this point, no further action has been taken by staff or City Council.

The purpose of this capstone project is to aid the City of Apache Junction in understanding both the preferential and financial feasibility of the pre-planned off-leash dog park locations.

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Literature Review

Despite hearing anecdotes of how desirable an off-leash dog park would be in the City of Apache Junction, it was necessary to first understand the issue from a macroscopic perspective. Having an off-leash dog roaming in any capacity, let alone a park, could very easily pose danger to other individuals, especially children. Inherently, there are liability issues at stake for both the owner and the municipality. For example, while it is easy for owners to believe their dogs are well-trained and do not need restraint, there will always be those who believe the opposite. In addition, should an off-leash dog bite someone in a city-managed park that explicitly prohibits animals from being off-leash, liability for the injury could fall on both the owner of the dog as well as the city for not properly handling their own rules.

The literature review that will follow covers several different aspects of an off-leash dog park. First, we will discuss both the external pros and cons associated with having a community off-leash dog park such as building a sense of community, scarcity of green space, and animal waste contamination. Once we have a broad understanding, we will then reign in on the literature that applies specifically to Apache Junction.

Building a Sense of Community

Toohy et. al (2013) studies individuals older than the age of 50 located in densely populated urban cities and how the social factors of a having and walking a dog in that area can affect both their own well-being in addition to the community's overall well-being (p. 75-76). Results from the study indicate that owning dogs and walking them throughout the community leads to "both increased levels of physical activity and increased social interaction, which are relevant to the health of older adults" (p. 78). In other words, dog-walking leads to increased social capital that benefits both the individual and the community.

Graham and Glover (2014) take Toohy et. al's sense of community-building a step further, suggesting that dog parks, and not just dog-walking, are important factors in developing social capital (p. 218). The authors compare dog parks to online gaming communities wherein both have like-minded individuals existing within an enclosed area, whether virtual or not, that allows them to freely interact (p. 223). Graham and Glover (2014) contested that having dog parks generally allowed individuals who frequented the facilities to interact and grow relationships, which ultimately leads to growth in a sense of community.

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Driving through the City of Apache Junction, it is easy to see how drastic the population density varies. There are a lot of mobile parks that house individuals over the age of 55. Often, these individuals are not year-round residents; they are instead referred to as “snow-birds” that spend half of their time in warm regions during the winter months and the other half of their time, during summer months, in a cold region. From growing up in Apache Junction, I was able to experience first-hand those households that would seasonally come and go with their dogs in tow. Walking dogs in Apache Junction is a way of life for these individuals. However, the city itself, especially where the vast majority of the mobile home parks are located, is not walkable in nature. These mobile homes do not have backyards and there are limited sidewalks in the surrounding neighborhoods. While there are parks nearby within driving distance, none of them allow an animal to be off-leash.

Scarcity of Green Space. “Given the scarcity of green space and population densities in urban areas, dogs in parks are often highly contested” (Graham & Glover, 2014, p. 218). As cities continue to grow and green space begins to dwindle, individuals are left searching for areas to take a pet to interact and exercise. While Apache Junction is not reminiscent of a large metropolitan area like Phoenix, there is still contested green space throughout the small city. Instead of growing up and building tall skyscrapers, the city grew out. Now there is little space for common pool resources such as additional parks. This lack of space is prevalent in the city’s new park additions such as the Flatiron Park, which is a very small park located off a busy street near the city’s downtown area.

In a study on a specific dog park, Matisoff & Noonan (2012) found that managing neighborhood commons required community-governance (p.45). Regular visitors who were both vested and invested in the park could monitor the park for safety and reinforce norms for new or infrequent visitors (p. 46). While most dog parks are governed at the city level through the Parks and Recreation Department, a core group of residential stakeholders are vital to ensuring the success of the dog park.

Urbanik and Morgan (2011) use preexisting data sets and surveys to understand the relationship between individuals and their dogs, and the new configuration needed in urban areas to accommodate them (p. 292). The research shows that dog owners tend to favor their dogs as their own family so developing dog parks and catering to dog-families adds to social capital within the community that leads to an increase in the city’s overall appeal (p. 301). Adversely,

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other individuals were more focused on developing space for their own children that were not canine, and thus wild, in nature.

Animal Waste Contamination. Off-leash dog parks will either aid in decontamination of current parks that require leashes for dogs, or they will cause concentrated waste that could potentially contaminate soils (Paradeis et. al, 2012, p. 2). Dog feces are regulated and it is illegal for an owner not to dispose of it. However, urine is not. It is simply another thing to think about when conceptualizing the pros and cons associated with off-leash dog parks.

History of Apache Junction Park Plans

As stated before, the City of Apache Junction created two master plans in 2008. These plans were both adopted by the City Council, but no action has been taken in terms of development (Project Cities: Off Leash Dog Park, 2017).

One of the plans was the Silly Mountain Park. It was planned as a 4.5-acre off-leash facility and is located off Highway 60. The original plan for this off-leash facility park would include a 4-acre add-on to the already existing park. The existing park, however, is simply a hiking trail with a botanical garden. There is no electricity or plumbing attached to the land. In addition to the lack of amenities, the land is covered in brush that would need to be removed before development. The other park plan created and adopted was the Prospector Park Phase 4 Dog Park. Prospector Park is located north of Lost Dutchman Boulevard on Idaho Road. City officials considered this park addition the “Cadillac” of the two original master plans. It was intended to be built in phases to the east of the pre-existing park. Lighting, plumbing and brush removal would also be necessary to build. Additionally, both parks would need to be built around the protected saguaros or the cacti would need to be professionally removed at an exorbitant cost. Both parks were estimated to cost between \$3-4 million and the Parks and Recreation Department did not and still does not have the funding for either a project.

In 2015, city staff designed a new conceptual park plan called the County Complex Dog Park. It would be situated in small area of land, owned by Pinal County and maintained by both the country and city, across from City Hall on the corner of East Superstition Boulevard and North Idaho Road. This park was priced far lower than the other parks at \$650,000. This proposal was never presented, and thus never adopted, by City Council.

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City employees state their number one problem is funding. While \$650,000 is far less than \$4 million dollars, it is still a lot of money for a very small and conservative tax-base.

Methodology

A SWOT analysis is used to identify both internal and external helpful and harmful attributes of a project (see Table 1). SWOT itself is an acronym that stands for the following: strengths, weaknesses, opportunities, and threats. In developing a plan for a city, such as building an off-leash dog park policy, it is essential to perform a SWOT analysis to ultimately maximize strengths, minimize weaknesses, benefit from opportunities, and diminish threats.

Table 1. SWOT Template

	Helpful	Harmful
Internal	Strengths:	Weaknesses:
External	Opportunities:	Threats:

For this capstone, a SWOT analysis for each of the pre-planned locations will be performed. These locations include the Prospector Park Phase 4 Dog Park, the Silly Mountain Dog Park, and the County Complex Dog Park. The primary observations within the SWOT analyses for these locations will be community preference of location in addition to sources of funding.

The first step will be reviewing and analyzing these plans in depth to determine the plans' SWOT. This step will include not only understanding the strengths and weaknesses of the merits and amenities of the plans, but also the funding for the plans. The second step will include sitting down with key staffers within the city of Apache Junction to properly capture and pinpoint the plans' SWOT. The third step will entail interviewing dog owners at currently existing parks to understand the preferences of the community. Limited questions will be asked to gauge what potential users of this park want along with if and how they are willing to fund it.

Research Questions

The research questions for this analysis will be as follow:

RQ1: Do off-leash dog parks build a sense of community?

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RQ2: What can be learned of the implementation of an off-leash dog park from a SWOT analysis?

Findings

Physically traveling to the City of Apache Junction, visiting, and observing the three potential park locations with city officials as well as receiving findings directly from city officials was essential in analyzing the locations' strengths, weaknesses, opportunities and threats.

Prospector Park Phase 4 Dog Park

The SWOT table for the Prospector Park Phase 4 Dog Park is pasted below (see Table 2). We can very easily identify traits that make this location preferable such as: a preexisting park establishment which indicates a connection to electricity and plumbing making it easier to build new lighting and water structures; plenty of land to build many types of pods, or sections, as indicated in the original building plan; and, no need for new roads or advertisements as the park is already well-known and very popular with the city's residents.

In terms of weaknesses, the designated land faces many. Before construction, the plentiful wildlife and vegetation that exists on the land will need to be removed and the land will need to be flattened. Additionally, the protected saguaro cactus exists throughout the designated land. To remove this plant, protected under Arizona's Native Plant Protection Act, it would require a removal permit from the Arizona Department of Agriculture (National Park Service). Should construction entail simply removing the cacti, both costs and time will increase. Costs will also increase through a park design that physically works around the protected cacti. Other major costs include the actual construction and development of the site, which sits between \$3-4 million, as well as ongoing maintenance that will need to be provided by the City.

Opportunities for this plan includes expanded use of a preexisting park, which will ultimately result in more human (and canine) traffic of individuals who are either not residents of Apache Junction or had no reason to come to the park in the first place. Should the City not have the desire to pay for ongoing maintenance, this park would be ideal for recruiting volunteers for upkeep due to its current popularity. One of the greatest opportunities for this plan will be the ability for lawmakers in the City to discuss and regulate the park in whatever way they so choose.

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Threats for this location can include threats on the ecosystem, lack of funding, fear of dogs, as well as the overall risks associated off-leash dog parks. Not only is removing wildlife and vegetation a weakness, but it is also a threat to existing ecosystems which will either have to relocate or will die during construction if not properly handled. Additionally, the City currently does not have funding available for building such a large, luxurious park. When discussing funding with city officials it was made clear that funds would not come from a tax or a general fund allocation in the near future. Lastly, because Prospector Park is a preexisting park, there are families and individuals that visit these parks without the need to worry about the risks associated with off-leash dogs. Not all dogs are predictable creatures which can lead to dog fights, dog bites, and an overall lack of cleanliness at the parks. Liability issues can easily evolve from the consequent injuries and diseases.

Table 2. SWOT Template for Prospector Park Phase 4 Dog Park

	Helpful	Harmful
Internal	Strengths: <ul style="list-style-type: none">• Already an established park with amenities• Plenty of available land• Not an issue of getting traffic there• No need for advertising• Plan seeks revolving pods	Weaknesses: <ul style="list-style-type: none">• Monetary costs associated with new park• Remove wildlife• Remove vegetation• Needs established source of ongoing maintenance• Saguaro cactus
External	Opportunities: <ul style="list-style-type: none">• Expanding usability and flexibility of the park• Establish source of ongoing maintenance (could be volunteer based vs city-based)• Possibility of further extension of the park with public support• Developing city codes/ordinances to set a framework for parks	Threats: <ul style="list-style-type: none">• Fear of dogs• Encroach on natural vegetation, threat on ecosystem• Lack of funding• Risks associated<ul style="list-style-type: none">○ liability of dog fights○ liability of dogs biting humans○ legal ramifications○ biohazard on the rest of the park without cleanliness - lack of usability

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Silly Mountain Dog Park. The SWOT table for the Silly Mountain Dog Park is pasted below (see Table 3). The strengths associated with this park plan includes exclusivity, flexibility, and capacity. The location allows for exclusivity in that it is not connected to a preexisting park nor a nearby neighborhood, it is only connected a trailhead. Because there is so much land available for development, plans can be flexible to build the exact park desired by the community. This written park plan, like the Prospector Park plan, includes revolving activity pods that would allow for health and safety measures.

In terms of weaknesses, this park plan faces many of the same issues the Prospector Park plan faces. For one, the costs of removing wildlife and vegetation, and flattening the land will prove costly. However, this site does not seem to have the issue of removing or working around saguaro cactus. However, due to the inconvenient location, there is a complete absence of amenities such as electricity and plumbing. All amenities would need to be added, which will either increase costs further or limit development plans. Lastly, this park plan will also need an established source of ongoing maintenance that will prove to be costly to the City if there are no volunteers.

In terms of opportunities, this park plan can serve as the biggest, most frequented, off-leash dog park in the surrounding vicinity. Because of its location right off the highway, people from Apache Junction, Gold Canyon, Queen Creek, and Mesa can all travel just a short distance to use the park. Such involvement from other cities and towns may lead to partnerships that could potentially be financial in nature. In addition, with more human traffic the park could very easily establish volunteer-based maintenance programs. As with the Prospector Park plan, this park would also allow the City to develop and adopt new ordinances and regulations that can optimize the park's usage.

For threats, this location may encroach on both the hiking trails and the wildlife nearby. It may also encounter the same risks associated with an off-leash dog park, as previously discussed with the Prospector Park Plan, such as dog fights and dog bites.

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Table 3. SWOT Template for Silly Mountain Dog Park

	Helpful	Harmful
Internal	Strengths: <ul style="list-style-type: none"> • Exclusivity to dog-owners • More flexibility in development • Doesn't encroach on the community due to its isolation • Volume not an issue • Plan seeks revolving pods 	Weaknesses: <ul style="list-style-type: none"> • Monetary costs associated with new park • Costs may be far greater due to the absence many amenities • Remove wildlife • Remove vegetation • Inconvenient location • Needs established source of ongoing maintenance
External	Opportunities: <ul style="list-style-type: none"> • General partnerships in profitability • Go-to place for other nearby rural communities -accessibility to surrounding towns/cities • Establish source of ongoing maintenance (could be volunteer based vs city-based) • Developing city codes/ordinances to set a framework for parks 	Threats: <ul style="list-style-type: none"> • Encroach on hiking trails • Encroach on wildlife • Coyotes need be deterred • Risks associated: <ul style="list-style-type: none"> ○ liability of dog fights ○ liability of dogs biting humans ○ legal ramifications

County Complex Dog Park. The SWOT table for the County Complex Dog Park is pasted below (see Table 4). Strengths for the dog park located next to Apache Junction's City Hall includes accessibility, convenience, and economical. By being located on the corner of East Superstition Boulevard and North Idaho Road, the park presents itself within the hustle and bustle of the city while the other two locations require a bit of travel. Through its accessibility and convenience, more visitors will come and utilize the park. In addition, because it is in the parking lot of preexisting infrastructure, it will be connected to electricity and plumbing making it far less expensive than other options.

While being smaller and more accessible results in low-costs, the lack of space will prove to be a weakness. By not having revolving pods, upkeep and maintenance of the park will need

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to happen more frequently. This could very well result in costs for the city through the hiring of a dog park attendant. Furthermore, being located in the city result in a lack of parking, which could actually limit the amount of visitors the park will receive. There will also be little to no room for improvements or expansions.

The greatest opportunity for this park plan presents itself in the form of a “trial run.” It has been years since the City of Apache Junction originally explored the concept of creating an off-leash dog park. Ideas and wishes can change. Through the creation of an inexpensive off-leash dog park next to City Hall, the city can see if this is something the public still wants. If the public likes it, they will do whatever it takes for the bigger, more expansive (and expensive) off-leash dog parks.

This park plan will encounter threats due to its location. It will be closer to people, which could indicate higher occurrences of dog fights, dog attacks, and health hazards.

Table 4. SWOT Template for County Complex Dog Park

	Helpful	Harmful
Internal	Strengths: <ul style="list-style-type: none">• Easily accessible• Constant visitors• Convenience• Connected to preexisting infrastructure• Cheaper than other plans	Weaknesses: <ul style="list-style-type: none">• Small comparatively• Will need constant upkeep• Lack of parking
External	Opportunities: <ul style="list-style-type: none">• Park in middle of city center could serve as a "trial run"• Developing city codes/ordinances to set a framework for parks	Threats: <ul style="list-style-type: none">• Higher proximity to living• Higher incidents of hazardous waste• Higher expectation of cleanliness• Risks associated:<ul style="list-style-type: none">○ liability of dog fights○ liability of dogs biting humans○ legal ramifications

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Addressing Research Questions

RQ1: Do off-leash dog parks build a sense of community?

When asking if dog parks create a sense of community, both literature and city officials agree. It has been said that the City of Apache Junction has been wanting to implement an off-leash dog park for many years, but has simply not had the funds to do so. It was the Director and Deputy Director of the Apache Junction Parks and Recreation Department that insisted on the community's desire of funding and building a master plan that would not only benefit city residents, but individuals from other cities and towns as well.

At a Prospector Park visit in late October, a very modest sample of six individuals with dogs were asked if they would: (1) want an off-leash dog park and (2) feel that the dog park would bring value to the community. Not unsurprisingly, everyone responded positively.

RQ2: What can be learned of the implementation of an off-leash dog park from a SWOT analysis?

While reviewing the three potential locations for an off-leash dog park, the following themes reoccurred: accessibility, costs, and public health and safety. All park plans offered accessibility in location. Not one plan seems to have an advantage over the other as all parks will very likely receive the same amount of visitors. In terms of costs, the County Complex Dog Park far exceeds the others as it is over two to three million dollars cheaper than the Prospector Park Dog Park and the Silly Mountain Dog Park. In terms of public health and safety, all parks face the same risks associated with an off-leash dog park. However, being located in a small, enclosed area (like County Complex) or being located near a regular park (like Prospector Park) could result in far more incidents of attacks and/or health hazards. Silly Mountain has the advantage of being both isolated and exclusive as well as large.

Recommendations

In determining whether the City of Apache Junction should pursue an off-leash dog park, the answer is an emphatic yes. The community wants it, city officials want it, and the SWOT analysis does not indicate something so severe as to prevent it. Choosing the location for where the park should be located is the difficult part.

While there are many costs associated with building something so extravagant, it is fair to stop and wonder if the costs are justified and worth it. If they are, there should be no reason than

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to move forward with finding a source of revenue and beginning development. While the City does not necessarily have the funds available at this very second, that is not to say there are not ways to figure out a funding source. The City has used business partnerships to create other, smaller parks like the Lost Dutchman park. Additionally, the City could use bonds to fund a dog park.

As for what park location to choose? That is a much different story. In taking into consideration the accessibility, costs, and the facts of public health and safety, no one park plan has an advantage over the other. Two of the three parks (Prospector and Silly Mountain) are going to be very expensive while one park (County Complex) will be relatively less expensive. Two of the three parks (Prospector and Silly Mountain) will be very spacious while one park (County Complex) will be relatively small. Two of the three parks (Prospector and County Complex) will be in close proximity to neighborhoods and people, resulting in possible waste contamination and dog bites/attacks, while one park (Silly Mountain) will be more isolated and less risky to human population.

In conclusion, it is fair to say there are definite advantages to one park that trumps the others. The Silly Mountain Dog Park is the most favorable location overall. It may be located in a minimally less convenient place to Apache Junction residents, but its slightly more isolated location will lead to more overall individuals (and dogs) entering into the city. Creating more traffic through the city will increase tourism and expenditures, which is advantageous to the city as a whole. The more money moving through the city will call for more businesses which in turn will bring job growth. Additionally, having the semi-isolation will keep public safety at a minimum by not jeopardizing families or children who do not have dogs and are not choosing to be specifically at a dog park. The semi-isolation will also keep public health at bay through the minimization of those who may come into contact with the animal waste and diseases associated with the parks.

Conclusion

Off-leash dog parks are becoming more and more attractive overtime. As urbanization persists and more people acquire dogs, they will discover a need to both socialize and exercise said pet. As mentioned before, the City of Apache Junction is not a city that has much expanding to do as it is very small in land and population. However, it absolutely has the ability to continue bettering itself with the land and resources that it currently has available to it. Through the

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financing, construction and implementation of an off-leash dog park, this city could benefit greatly.

Should the City of Apache Junction choose to build an off-leash dog park, this capstone project should aid in determining the best option for a location. Taking into consideration accessibility, costs, and public health and safety are of utmost importance in determining the best course of action. To reiterate what has already been said, a spacious location with easy accessibility and minimized risks should prove to be optimal. By vigorously using SWOT analyses to weigh the strengths, weaknesses, opportunities and threats, the overall best location to utilize for an off-leash dog park is the Silly Mountain site.

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CREATING AN OFF-LEASH DOG PARK IN APACHE JUNCTION

An Analysis and Recommendation to Create an Off-Leash Dog Park in
the City of Apache Junction, Arizona

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Abstract

Since 2008, the city of Apache Junction, Arizona has held a widely supported vision of creating an off-leash dog park for its citizens. However, funding for a dog park has been lacking, leading to multiple shelved proposals as city officials attempt to discover other ways to locate resources. The city needs recommendations on how to proceed with building an off-leash dog park. A literature review identified a history of off-leash dog parks in the United States, health and social benefits, and risks and barriers to constructing dog parks. A comparative analysis and benchmarking study of six dog parks in Gilbert, Mesa, and Chandler, cities within a 30-mile radius of Apache Junction, were then conducted to identify key features of off-leash facilities and fundraising strategies that Apache Junction could refer to as options to raise resources in a cost-effective manner. Based on these findings, a recommendation was provided to the city of Apache Junction that encompassed key features that should be factored in to the design of a dog park and different fundraising strategies that could be utilized to offset building costs and recurring maintenance costs.

Keywords: off-leash dog park, key features, amenities, fundraising strategies

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An Analysis and Recommendation to Create an Off-Leash Dog Park in the City of Apache Junction, Arizona

Introduction

Located within the Superstition and Goldfield mountain ranges, the city of Apache Junction is one of the youngest cities in the state of Arizona, incorporated into the state on November 24, 1978 (City of Apache Junction, 2017c). As of the 2010 census, close to 36,000 people call Apache Junction home, equating to 1,024 people per square mile (U.S. Census Bureau, 2010). Since 2000, the population has increased by almost 20% with the median resident age being 50 years old, almost 13 years older than the average Arizona citizen (City Data, 2017).

As the population has grown, the city's government has expanded to offer resources and facilities that service community residents, particularly through the Parks and Recreation department. One of these resources that has been planned for development over the last ten years, but not come to fruition, has been an off-leash dog park. Citizens and city officials alike have vocalized support and desire for an off-leash dog park, believing that it would be beneficial for them and their dogs alike. First proposed in 2008 in the city's Master Plan, Apache Junction officials hoped to build an off-leash dog park as an extension of Prospector Park. Proposed to be over four acres, construction plans were approved for the facility with anticipation of available funding to begin building the dog park in 2010, but adequate funding and resources to complete the project never appeared (Goggin, 2017). A similar proposition was put forth in 2008 for another popular Apache Junction park, Silly Mountain Park, to develop an additional facility for dogs, this park equating to four and a half acres large. Unfortunately, these plans were halted in the conceptual stage as it became clear that, like the Prospector Park proposal, the dog park would cost millions (Goggin, 2017).

Following these unsuccessful proposals, the city developed a conceptual plan in 2015 to construct a smaller dog park on county property located near City Hall. Costs for this project were estimated to be much lower than the Prospector Park and Silly Mountain Park dog facilities, nearing \$650,000. However, no official decision on whether to move forward with the project occurred, and the plan was stalled before ever being presented to the Apache Junction City Council. Public interest in constructing an off-leash dog park has never waned since the initial proposals came forth in 2008, but the needed financial resources have yet to materialize to complete the project (Goggin, 2017).

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Purpose

The Parks and Recreation Department in Apache Junction's mission is to provide "quality services to an entire community with diverse recreational programs and an integrated, efficient, and safe system of parks, trails, and recreational facilities" (City of Apache Junction, 2017c). Providing these services to Apache Junction citizens is mandated, but many people might unintentionally exclude Apache Junction's canine residents from being able to take advantage of these services as well. In the benefit of acting upon public interest, and in the importance of demonstrating a commitment to the well-being of all community members, the city has continued to look for new and innovative ways to raise the resources needed to build a dog park, culminating in the need for a new proposal and recommendation. The objective of this study is to conduct a comparative analysis of successful dog parks throughout Arizona cities near Apache Junction to propose a formal recommendation of how a cost-effective off-leash facility can be built in the community.

Document review and field observations of other Arizona dog parks will be utilized to explore the following research questions:

1. What are the necessary features and key elements of a successful community off-leash dog park?
2. How did other Arizona cities locate the resources to build their off-leash facilities?
3. How can Apache Junction apply different fundraising strategies to raise the resources to construct its own dog park?

Literature on the history of dog facilities, the health and social benefits of building dog parks within communities, and barriers to constructing facilities will be reviewed in the next portion of the study. Methods to acquire and consolidate research to answer the aforementioned research questions will be discussed following the literature review. Then, the answers to the research questions will be outlined in a discussion of the comparative analysis of Arizona dog parks. From this discussion, recommendations for the construction of an off-leash dog park will be made for the city of Apache Junction.

Literature Review

In 2017, it has been reported that approximately 89.7 million dogs live in households throughout the United States, an almost 25% increase from 68 million dogs in 2010 (Statista, 2017). One in every three American families owns at least one dog (Stecchi, 2006). For dog

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owners, dogs are a significant aspect of the family dynamic and can be brought into families for a variety of reasons, such as companionship, emotional and physical service and assistance, extracurricular activities such as hunting and agility, and more. Dogs can also induce substantial health benefits such as stress relief, socialization, reduced risk of heart problems, weight loss, and heightened physical activity and fitness (Davis, 2005). In fact, it has been reported that dog owners over the age of 65 visit the doctor about 30 percent less than non-dog owners do (Siegal, 1990).

Dogs are an integral part of society and are treated similarly to humans, being trained to perform certain tasks out of amusement or necessity and often being treated as family members or as an assistant that provides services or does tasks for their owners that they are otherwise incapable of performing. A popular service dog community forum, Service Dog Central, states that in 2014, there were approximately 387,000 service dogs partnered with owners with medical disabilities located in the United States (Service Dog Central, 2014). While it is clear that many people rely on dogs for many reasons, the relationship between dogs and their owners are reciprocal – dogs need to reap the same health and social benefits that their owners do.

History of Dog Parks & Facilities

Dog parks are a comparatively recent phenomenon in community parks and recreation development. Historically, dogs in urban areas are confined to their homes or small areas within the home – this can be in a crate, in a room in the house, or in an enclosed yard of any shape or size. Dog owners typically leave their dogs alone for periods of time during the day, especially during business and working hours. This means that dogs have a limited opportunity to get all of the exercise and physical activity that they need to remain healthy. These opportunities usually appear in the form of daily walks on a leash, which restricts dogs' freedom of movement and ability to roam while often preventing dogs to socialize with other dogs and people that they come across. Every city has a form of leash laws that dog owners must abide by; in the city of Phoenix, for example, dogs must be leashed at all times unless within the confines of a park designated by the city's Parks and Recreation department as a dog park (City of Phoenix, 2017). Not abiding by the city's leash ordinances often results in fines or some form of retribution.

The first public dog park was not built until the late 1970s, when the city of Berkeley, California opened an experimental dog park within Ohlone Park in the heart of the city. The experiment proved to be a success, and the dog park was officially incorporated into the park,

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later renamed the Martha Scott Benedict Memorial Park (Ohlone Dog Park Association, 2007). Since then, the number of public off-leash dog parks in the United States has increased to become the fastest-growing kind of urban park in the country (Trust for Public Land, 2015). According to the 2015 City Parks Facts report released by the Washington, D.C.-based Trust for Public Land (2015), the number of off-leash dog parks in the United States grew 20% from 2010 to 2015; Portland, Oregon was named the city with the largest number of off-leash dog parks, at 5.4 dog parks per 100,000 residents.

Dog parks are typically one or more-acre parks of “open grassland surrounded by a chain-link fence” that abide by a two-gate “airlock” system for entrance and exit into the park (Shyan, Fortune, & King, 2003). This entails that one gate will always remain closed to ensure that dogs are confined within the parks to not break leash laws and mitigate any potential accidental escapes. Parks will usually contain a fresh water source, shading, seating for dog owners, and waste disposal bins that also supply materials to clean up after dogs. Some parks, depending on the city, will also have segregated areas for dogs of similar sizes and temperaments; for example, large and playful dogs can run around together in one area of the park, while small and shy dogs can be confined to a different area. This allows dogs to socialize and play at their own comfort levels without aggravating them in conditions that could potentially make them lash out. Some parks will also have areas set aside for behavioral training or agility training.

The availability of dog parks to community members is also dependent on the city. Many cities do not charge dog owners a fee or membership to have access to the dog park. Some cities, such as Columbus, Ohio and New York City, New York, operate private dog parks that require dog owners who wish to use the park to pay an annual membership fee. This fee serves to ensure that the financial needs of the park are taken care of and as insurance that dog park owners will follow the rules of the park (Prisco, 2014). Some dog parks allow access only to dog owners who have applied for permits; Lake County, Illinois offers pricing structures for dog owners to apply for the right permit for their dog to utilize any Lake County dog facilities (Lake County Forest Preserves, 2017). Many dog owners enjoy private dog parks for their cleanliness, safety, and size, but also contend with stricter rules than public dog parks, large crowds, and limited operating hours (Colley, 2012).

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Health & Social Benefits of Dog Parks & Facilities

Off-leash dog parks and facilities provide numerous health and social benefits for dogs and their owners. As previously mentioned, many dogs' abilities to exercise are limited to leashed walks once a day. While the exercise needs of a dog are dependent on numerous factors, such as size, breed, and age, veterinarians recommend that dogs should spend at least 30 minutes a day doing a physical activity, sometimes even up to two hours (PetMD, 2017). Many dog owners are unable to fulfill this need for their dogs, especially in urban areas with busy streets and heavily constraining leash laws. Dog parks are seen as a way for dogs to get exercise in a safe environment without being restricted by leash laws or penalized for being off-leash or damaging private property. The increased ability to exercise freely also reduces the likelihood that the dog will exhibit bothersome behavior as a result of boredom or lack of exercise, such as chewing on furniture or household items that they should not, and excessive barking (Superior Recreational Products, 2017).

Socialization is also important for a dog's health. By nature, dogs are social creatures that need stimulation from other dogs, similar to how human beings have socialization needs with other humans. Dog parks are perceived as facilities that enhance dogs' abilities to not only socialize with other dogs, but to facilitate interaction and socialization among dog owners as well. Pet ownership has been found to be positively associated with forms of interaction, social contact, and neighborhood friendliness; it has also been positively associated with capital and civic engagement in terms of pet owners (Wood, Giles-Corti, & Bulsara, 2005). The dog park becomes a place where owners can share resources and creates a sense of community that might not be accessible in another setting (Graham, & Glover, 2014). Dog parks also promote responsible dog ownership among fellow owners and the community. Dog parks prevent dogs from "infringing on the rights of other community residents and park users. . .who may be fearful of dogs" or who may have a medical reason for steering clear of them (American Kennel Club, 2008).

Barriers to Dog Parks & Facilities

Despite the many benefits of community off-leash dog facilities, there are certain barriers and risks that can make it difficult to build and maintain a park. The biggest barrier to opening a dog park is funding – dog parks, depending on the desired amenities, location, and size, can cost hundreds of thousands of dollars to construct, and thousands more in annual upkeep. For

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example, the city of Apache Junction allocates a majority of Parks and Recreation resources to its community parks, leaving very little left over to add an additional park space that would have cost over \$3 million (ASU Sustainable Cities Network, 2017). While funding is one of the larger barriers to building a dog park, there are also risks associated with dog parks that need to be considered prior to construction.

The Association of Professional Dog Trainers (2017) outlines numerous risks that come with constructing a dog park, such as: potential danger from aggressive dogs and parasites; community misunderstanding that will result in abuse of the park; noise pollution; and potential liability issues. Some people may not share the public interest of building a dog park because they are afraid of aggressive dogs for themselves and on their own dog's behalf, and believe that an off-leash dog park does not mitigate the risk of a potential accident or injury. These risks may also stem from dog owners' lack of education on whether the dog park is a healthy environment for their dogs. Many pet owners might be unaware of how their dog will act in a dog park setting, especially if their dogs have not been socialized or been around other dogs before. This can increase the risk of injury or harm to dogs, and possibly their owners.

Parasites put dogs at risk and can transmit a variety of diseases; they can be passed from dog to dog, or be picked up in public areas where a dog carrying parasites can expose other dogs to them (American Veterinary Medical Association). Without the proper maintenance of the park, and ensuring that owners have their pets up to date on their vaccinations, there is risk for allowing parasites to also make dog parks their permanent home, causing a community health problem.

Community misunderstanding can also occur when people are confused about their responsibilities as consumers of the dog park. There is a chance that people will not follow all of the rules listed because they do not know them or just want to flat-out ignore them. This can include not disposing of dog waste, encouraging inappropriate playing and behavior, using the dog park outside of park hours, and others. Using the park outside of hours could also cause a noise problem, particularly in communities that enforce a curfew. These risks make the community association or resource provider liable for any disruption or harm caused in the community by the dog parks, which can be enough of a barrier to reduce interest in a dog park.

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Methods

This research study consisted of a qualitative approach to identify key commonalities among established off-leash dog parks in order to make a recommendation for how to build a cost-effective dog park in Apache Junction. Data collection methods involved were document review, field observations, and informal communications with Parks and Recreation city officials from each of the four cities. The four cities selected are Tempe, Mesa, Gilbert, and Chandler, with two dog parks selected in each city (eight dog parks in total) to perform a benchmarking and comparative analysis. Characteristics for analysis included physical features, regulations, and fundraising strategies to construct the dog park.

Data collection began by determining which cities would be selected for analysis. Originally, four cities within a 30-mile radius were chosen due to their proximity to Apache Junction, their affinity for building and maintaining well-used dog parks within their communities, their population demographics, and the variety of activities for dogs and their owners that the park supports (socialization, behavioral classes, agility programs, etc.). The cities of Tempe, Mesa, Gilbert, and Chandler fit these criteria. The next stage involved selecting two dog parks within each city that would serve as adequate baselines for understanding different key features present in the dog parks that would inform a recommendation for the city of Apache Junction. This involved conducting an Internet search of popular dog parks in each city, resulting in the selections shown in *Table 1*.

Due to time constraints and unresponsiveness from the City of Tempe Parks and Recreation Department, dog parks selected within Tempe were discarded from the overall comparative analysis and benchmarking process. This reduced the number of dog parks visited and observed from eight to six.

City	Dog Park
Gilbert	Cosmo Dog Park
	Crossroads Park
Mesa	Countryside Park
	Quail Run Park
Chandler	Nozomi Park
	Shawnee Park

Table 1: Dog parks selected for comparative analysis and benchmarking.

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The next component of the study involved spending 30 minutes at each dog park (three hours of observation in total) to conduct field observations at each dog park. Parks were visited between late morning and early afternoon hours. The parks were observed for several descriptors first provided by a study conducted by Lee, Shepley, & Huang (2009). These descriptors are: the year that the park first opened; the park's size; the park's context and location; parking availability; dog separation and containment; fence, perimeter, and gate; shade structure; seating; play areas; water play areas; and, other amenities. The presence of each descriptor in the dog parks was coded into Microsoft Excel, with a "1" representing "Yes" and a "0" representing "No". An explanation is provided with each descriptor, describing the exact characteristics of each descriptor as it was observed. The term "other amenities" was used to describe any additional characteristics of the dog parks that could not be classified under the previously stated descriptors; this was not numerically codified, but did include a description of the additional facilities within the dog parks. It is also noted if each dog park had posted regulations of what was tolerated within the dog park; this was coded into Excel with a "1" representing "Yes" and a "0" representing "No", also including a short description of which rules were publicized. An additional column, "fundraising strategies", describes the methods used to fundraise for the dog park (see *Appendix A*).

The final component of the comparative analysis required informal communications with Parks and Recreation staff members from each city to determine what kind of strategies were utilized to allocate funds to the construction of each dog park. Parks and Recreation officials were located on the Internet on each individual city's government website. They were emailed inquiring about what kind of fundraising strategies were relied upon to build the dog park, as well as the year that the park opened and the park's size if this information was not already published online or at the dog park itself (an example email can be found in *Appendix B*).

These research methods were selected for their practicality in providing context for why a dog park is beneficial to its community. Witnessing how dogs utilize the park space demonstrates how resources within the park are used in terms of frequency and volume. A needs assessment or public survey would have discussed the necessity of a dog park and whether community members still wanted it to be built, but public and official interest in building a dog park in Apache Junction has been continually expressed in the last decade, and only not occurred because of a lack of funding.

Findings

Each of the six dog parks shared similar qualities and characteristics, demonstrating consistency in the notion of what makes a successful off-leash dog park. Detailed descriptions of each park can be found in the following sections and in *Appendix A*.

City of Gilbert

Cosmo Dog Park. Located adjacently to a residential neighborhood and a shopping center, Cosmo Dog Park opened in 2007 within Cosmo Park, a 17-acre facility named after the city's first police canine officer, Cosmo. Notably, the two-acre park comprises of four separately fenced areas with access to a lake (see *Appendix C*, *Picture 2*), as well as a doggie shower and kiddie pool. This park is one of Gilbert's most popular parks, seeing at least 600,000 visits a year from humans and dogs alike (Town of Gilbert, 2017a). The dog park also operates as a space for advertisements for dog services, such as local veterinarians, dog walkers, and grooming services, while also advertising for city-wide events.

Crossroads Dog Park. Crossroads Dog Park, a one-acre facility that opened in 1996, is the oldest dog park that was selected for field observation. This off-leash facility resides within Crossroads Park, a 92-acre public space located within a five-minute drive of Cosmo (Town of Gilbert, 2017b). The dog park is comprised of two separately fenced areas for active and timid dogs, with the active dog area being significantly larger than the timid dog area (see *Appendix C*, *Picture 3*). Like Cosmo, dog owners can find information about various dog services available in the community here, along with advertisements for community events.

City of Mesa

Countryside Dog Park. The "newest" dog park selected for field observation, Countryside Dog Park, was constructed in 2010 within Countryside Park, a multiuse 28-acre public park in a residential neighborhood. The park, along with displaying park regulations, also displays benefits of having an off-leash facility within the community (see *Appendix C*, *Picture 4*). An active dog area and a timid dog area are available for use, with the timid dog area being much smaller in size than the active dog area (see *Appendix C*, *Picture 5*). Countryside was opened as part of a dog safety campaign launched by the city titled "Doggie Do's and Doggie Don'ts", sharing advice for pet owners to enjoy Mesa parks (City of Mesa, 2010).

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Quail Run Dog Park. Opened in 2001, Quail Run Dog Park is a one-and-a-half-acre park situated within the larger 40-acre Quail Run Park, located near commercial developments. This park was built as a key deliverable in the city's general park masterplan and offers two separately fenced areas for active and timid dogs (see *Appendix C, Picture 6*). Similar to Countryside, Quail Run also displays signage at the entrance to the dog park describing the benefits of dog parks within the community.

City of Chandler

Nozomi Dog Park. Nozomi Dog Park is sized at less than an acre and opened to the public in 2004. As a part of the Nozomi Park, this dog park is the smallest of the dog parks selected for field observation. Signs posted at the entrance offer information about the city of Chandler's other dog parks, such as their locations and hours of operation (see *Appendix C, Picture 7*). This dog park offers an area for agility training, complete with agility obstacles and structures; it is considerably smaller than the active dog area (see *Appendix D, Picture 8*). The dog park is occasionally reserved for dog obedience classes and police K-9 training (City of Chandler, 2017a).

Shawnee Dog Park. Shawnee Dog Park, which opened in 2000, is the largest dog park selected for field observation at over two acres. It is located within a residential neighborhood and is part of the larger Shawnee Park. Like Nozomi, Shawnee offers two separately fenced areas for active dogs and agility training. The agility training area is situated directly in the center of the dog park, complete with agility structures. The dog park, along with Nozomi, is also a part of the city's Dog Waste Stations & Plastic Bag Recycling Program, an award-winning initiative that asks dog owners who frequent Chandler's dog parks to bring plastic bags that would otherwise be thrown away and use them to dispose of dog waste (City of Chandler, 2017b).

Comparisons

Each park utilizes the double-gate system, which requires one gate to be closed at all times to prevent dogs from escaping the parks. All parks use chain-link fences around their perimeters (the heights of which are at least over five inches tall), and have easily accessible parking lots nearby. Each park is lit at night for those owners who enjoy taking their dogs out in the evening, which can be a popular time to visit during Arizona summers when there are cooler temperatures. A water source is present within each park, along with dog waste materials and

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receptacles to dispose of the waste. Lastly, every park posts regulations and rules detailing appropriate behavior within the dog park for both dogs and their owners in accordance with municipal policy (see *Appendix C, Picture 1*). Despite these similarities, there are distinct differences between each park, both across and within municipalities.

These differences range from the sizes of the dog parks, to the frequency and volume of park resource usage. It was clear from the outset that most of the dog parks selected were quite popular destinations for dog owners. Cosmo was the most highly frequented dog park of the six, with at least 25 dogs within the park's fenced areas at one time. A couple of dog owners mentioned that they had traveled from a different city just to visit Cosmo, with one owner remarking that she had driven at least 40 minutes. On the other hand, Crossroads, the other selected park from Gilbert, seemed to be the least popular dog park of the six, as there was only one dog present in the park at the time of observation. The other dog parks in Mesa and Chandler saw between seven and ten dogs within each park during observation. Most of the dogs were observed to be in the active dog areas, while a small number of dogs were sometimes found in the timid dog areas. It was also observed that each of the dog parks offered a highly used water resource for drinking, while a few offered additional water resources for playing purposes.

The most popular example was the double-use water fountain, which allowed both dogs and their owners to drink from the fountain; this was found in each park. Countryside, Nozomi, and Shawnee went beyond that and placed bowls of water throughout the park, spacing them to give the dogs room to run between them. It was not uncommon to see a dog chasing another dog, only to stop midway near a water bowl to take a quick drink, and then continue on its chase. The water fountains were stationed near the entrances to the dog parks, so dogs did not tend to use the fountains as frequently as the bowls. Nozomi and Shawnee also provided a kiddie pool in their active dog areas, filled with water for dogs to take a quick bath in to cool off and located near the water fountains.

This addition was a popular one in these parks, as many of the dogs using the pools were among the most active and the temperatures during the times of observation were warm. Cosmo also offered a kiddie pool for dogs to use in one of their active areas, but also gave dogs access to a doggie shower and a lake and dog beach for dogs that enjoyed swimming. According to dog owners at Cosmo, the summertime sees many dogs taking advantage of the lake and an opportunity to stay cool in the dry Arizona heat. The doggie shower allows dogs to wash off any

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dirt or mud picked up in any of the fenced areas, a perk that many dog owners at this park tend to enjoy. However, it is understandable that the other dog parks would not have the capability of installing a doggie shower; every dog park should at least have a water source, while other water resources such as kiddie pools and doggie showers can be considered desired but ultimately unnecessary (City of Ann Arbor, 2013). The capability of installing these kinds of resources depends on the fundraising resources available to each city, which differed among these dog parks.

Three fundraising strategies were used to construct the dog parks, with the exception of Crossroads because the information is unavailable. The town of Gilbert utilized funds devoted to constructing Cosmo as part of a capital improvement plan. A capital improvement plan “communicates timing and costs associated with construction, staffing, maintaining, and operating publicly financed facilities and improvements with a cost over \$100,000” (Town of Gilbert, 2013). Therefore, the costs associated with constructing Cosmo were already planned for, and included looking at cost estimates of operating over a five-year period. Countryside in Mesa initially had private support that was eventually withdrawn, but was then able to move forward in construction when public funding became available due to cost savings and delays in other projects. Costs allocated to build Countryside amounted to about \$30,000. Quail Run, also in Mesa, was included in Mesa’s general park masterplan, so there was no specific separation of costs associated with development and construction. Countryside and Quail Run’s initial development and construction costs were budgeted for in the sense that their locations within larger parks enabled the City of Mesa to lump those costs in with the larger costs of park development as noted in the city’s masterplan. Annual upkeep costs are allotted within the parks’ overall maintenance plans (not just for the dog parks themselves). Nozomi and Shawnee, both in Chandler, utilized park bond funds.

At this time, a request for more information about the costs of construction and maintenance for each dog park remains unanswered from Chandler and Gilbert city officials. Multiple attempts were made to contact the appropriate people, but unfortunately, no additional information was obtained.

Recommendations

The purpose of this study was to determine the key features of a successful community off-leash dog park, how other Arizona cities located resources to build their off-leash facilities,

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and how Apache Junction can apply different fundraising strategies to raise resources to construct its own dog park. The answers to these questions formulate a recommendation to the Apache Junction City Council on how they can move forward with plans to build a dog park in a cost-effective and efficient way that satisfies the community.

Key Features

A successful dog park will have numerous features and amenities that are both necessary and satisfactory to both dogs and their owners. The park should be at least one acre in size and preferably near a residential area, or be an extension of a community park. The proposals put forth that would place a dog park at Silly Mountain Park or Prospector Park are good options, but expensive ones because both of these proposed parks are at least four acres in size, which increases costs exponentially. The option to build across the street from City Hall, though much less expensive, is still expensive. Costs would be minimized by a smaller park, which would mean a smaller perimeter.

The perimeter of the park should be at least five feet high, and there should be a double-gated entrance to the park to prevent dogs from escaping. At least one area for active dogs and one area for timid dogs must be included. The park must also post regulations that determine appropriate behavior for both dogs and their owners within the park. This should include:

- A notice of assumed risk for owners.
- Assumed responsibility of dogs by their owners.
- Licensure, vaccination, and visible tag requirements.
- Recommendations for dogs to be spayed or neutered.
- An age minimum for dogs and children to enter the park to minimize safety and health risks.
- Restrictions on food, alcohol, or beverages that can cause potential harm and safety concerns to dogs and their owners.
- Restrictions on aggressive behavior by dogs that results in removal from the park.
- Requirements that owners clean up after their own dogs.

Other key features that should be included are a water fountain for owners and dogs, or another applicable water source for drinking and potentially bathing (should funding allow for the latter). Some form of waste receptacles should be spread throughout the dog park for

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cleanliness and health purposes. Due to Arizona weather, some shading and seating should be readily available for dogs and their owners, such as trees, a ramada, picnic tables, or benches.

Fundraising

Currently, the City of Apache Junction Parks and Recreation department receives funding from the general fund, development fees, grants, bond issues, and donations from local business and citizens (City of Apache Junction, 2017a). Because the problem with building a dog park in Apache Junction is the lack of funding available, the city should consider looking inward to determine if there are cost savings on other projects that could be allocated to building a dog park. As noted above, Countryside in Mesa was built for around \$30,000 as a result of cost savings and project delays; however, these funds were not separated out from the overall park project. Costs of land, light, turf, irrigation, and other infrastructural necessities were budgeted for.

It is also worth noting that none of the dog parks selected for this study were fundraised using private support. Money was allocated to Cosmo via Gilbert's capital improvement program, and to Quail Run as a part of Mesa's general park masterplan. Nozomi and Shawnee were built from funds gained through park bonds. It may also be worth structuring a fundraising plan using bonds to construct a dog park in Apache Junction. Since the city's Parks and Recreation department budget is partially sustained by bonds, this could be a viable source of funding.

Due to the continued interest in building an off-leash facility, it might also be a good idea to look to the public for support in assisting with minor features of the park. Similar to how Chandler's dog parks participate in the city's Dog Waste Stations & Plastic Bag Recycling Program, citizens could feel compelled to taking a frontline interest in seeing the dog park come to fruition by assisting with its maintenance and saving costs. The city could also ask for donations for material items, such as water bowls and possibly a kiddie pool, trash cans, and seating rather than purchasing these items upfront. Partnerships with local animal services could be beneficial as well – as noted, some of the dog parks mentioned in this analysis were hubs of information for available dog services. If the city charges a regular fee for advertisements, this creates a stream of revenue while cementing community partnerships and shortening the gap between communities.

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Many of these fundraising strategies are adequate for producing short-term benefits and implementing small-scale amenities, as well as accounting for maintenance and upkeep. However, the bulk of funding for an off-leash dog park would best come from internal funding, such as by using a means of allocating funds in the scope of a larger Parks and Recreation budget. Another consideration is to look at streamlining funding from other Parks and Recreation projects that can withstand a cut in costs.

Based on observations and research, an off-leash dog park structured similar to Cosmo Dog Park is most recommended due to its size, amenities, water resources, and popularity throughout the community and beyond.

Conclusion

The biggest advantage to creating an off-leash dog park in the community will be the ability to capitalize on community support and partnerships to make this possible. One of Apache Junction's biggest challenges that comes with spurring economic development and improving general welfare is the disconnect between Apache Junction's various urban areas (ASU School of Geographical Sciences and Urban Planning, 2016). An off-leash dog park could be the spark that crosses the metaphorical boundaries that bring connection to a halt between urban communities. However, there is no conclusive way to know that any of the recommendations put forth would be as effective for Apache Junction as they have been for the dog parks in Gilbert, Mesa, and Chandler. However, the success of the dog parks mentioned in this analysis shows that these recommendations could prove to be fruitful. It will require scaling each feature and financial strategy to be conducive with Apache Junction's infrastructure. But, there is no doubt that an off-leash dog park would benefit Apache Junction's citizens, human and canine alike.

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Appendices

Appendix A

	Cosmo	Crossroads	Countryside	Quail Run	Nozomi	Shawnee
Year opened	2007	1996	2010	2001	2004	2000
Park size	2 acres	1 acre	1.2 acres	1.5 acres	± 0.83 acres	± 2.21 acres
Park context & location	Near a shopping center & adjacent to residential neighborhoods. Part of 17-acre Cosmo Park. ¹	Part of larger 92-acre Crossroads Park. ² Adjacent to a residential area and a shopping center.	Part of larger 28-acre Countryside Park. In residential area. ³	Part of larger 40-acre Quail Run Park. Near commercial development. ⁴	Adjacent to residential neighborhoods. Part of larger Nozomi Park.	In a residential neighborhood. Part of larger Shawnee Park.
Parking availability	Parking lot nearby.	Parking lot right next to park.	Parking lot right next to park.	Parking lot right next to park.	Parking lot right next to park.	Street parking, park parking lot.
Dog separation & containment	Separate but connected areas; 4 areas total.	Separate but connected areas; 2 areas total.	Separate but connected areas; 2 areas total.	Separate but connected areas; 2 areas total.	Separate but connected areas; 2 areas total.	Separate but connected areas; 2 areas total.
Fence, perimeter & gate	Chain link fence & double gates.	Chain link fence & double gates.	Chain link fence & double gates.	Chain link fence & double gates.	Chain link fence & double gates.	Chain link fence & double gates.
Shade structure	Ramada & picnic table in lake area.	Ramada & picnic table.	No shading structure, but trees on the outskirts.	No shading structure, but plenty of trees.	No shading structure, but lots of trees outlining the park.	No shading structure. Outskirts of park heavily shaded by trees.
Seating	Benches on edges of park areas.	Picnic table and a few benches.	Some seating (plastic chairs), but not much.	Not much seating available.	A few picnic tables scattered in both areas.	Picnic tables and ledges for seating.

¹ Retrieved from <https://www.gilbertaz.gov/departments/parks-and-recreation/parks-facility-rentals/parks-info-ramada-rentals/parks/cosmo-dog-park>.

² Retrieved from <https://www.gilbertaz.gov/departments/parks-and-recreation/parks-facility-rentals/parks-info-ramada-rentals/parks/crossroads-park>.

³ Retrieved from <http://mesaaz.gov/things-to-do/parks-recreation-commercial-facilities/parks/countryside-park>.

⁴ Retrieved from <http://mesaaz.gov/things-to-do/parks-recreation-commercial-facilities/parks/quail-run-park>.

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Play areas	Active dog areas are large. Timid dog area is smaller, connected to the active area.	Active dog area is spacious. Timid dog area is smaller, connected to the active area.	Active dog area is spacious. Timid dog area is smaller, connected to the active area.	Active dog area is spacious. Timid dog area is smaller, connected to the active area.	Active dog area is spacious. Agility area is smaller, connected to the active area.	Active dog area is spacious. Agility area is smaller, located in the middle of the active area.
Water play area	Access to lake and dog beach for dogs to swim. Kiddie pool for dogs.	No water play area, but water fountain available.	No water play area, but water fountain and water bowls available.	No water play area, but water fountain available.	Kiddie pool for dogs to lay in. Water fountain and bowls available.	Kiddie pool for dogs to lay in. Water fountain and bowls available.
Other amenities	Doggie shower, playground nearby, extra seating outside of the dog park. Hub for advertising dog services. Dog waste receptacles.	Hub for advertising dog services. Dog waste receptacles.	Hub for advertising dog services. Toys left in park to play with. Dog waste receptacles.	Playground nearby, toys left in park to play with. Dog waste receptacles.	Agility course structures, toys in park to play with. Dog waste receptacles & plastic bag donations used.	Agility course structures, toys in park to play with. Dog waste receptacles & plastic bag donations used.
Posted regulations	Sign posted at entrance detailing dog park rules, AZ leash law, and contact information for relevant municipal departments.	Sign posted at entrance detailing dog park rules, AZ leash law, and contact information for relevant municipal departments.	Sign posted at entrance detailing dog park rules & benefits of dog park, and contact information for relevant municipal departments.	Sign posted at entrance detailing dog park rules, benefits of dog park, and contact information for relevant municipal departments.	Sign posted at entrance detailing dog park rules, other dog parks in city of Chandler, and contact information for relevant municipal departments.	Sign posted at entrance detailing dog park rules, other dog parks in city of Chandler, and contact information for relevant municipal departments.
Fundraising strategies	Capital improvement plan	N/A	Funding available due to delays in other Parks & Rec. projects and cost savings.	Part of the general park masterplan – no specific separation of costs.	Park bond funds	Park bond funds

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Appendix B

From: Katherine Brewer

Sent: Monday, October 02, 2017

To: City of Gilbert Parks and Recreation

Subject: Off-Leash Dog Parks

Good afternoon,

I'm emailing to inquire about information regarding two dog parks in the city of Gilbert:

Crossroads Park and **Cosmo Dog Park**. I am interested in researching dog parks, their features, and their financial feasibility, and am conducting a comparative case study of off-leash dog parks. This information is being collected for my Masters Capstone research project at Arizona State University. If possible, could I please be directed to someone who can answer the following questions:

1. When were each of the dog parks opened to the public?
2. What is the size (in acres) of each dog park?
3. What fundraising/financial strategies were utilized to open the dog parks?

Thank you.

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Appendix C



Picture 1: A sign at Cosmo Dog Park detailing rules and regulations of the dog park. Mesa and Chandler each have their own variations of a “rules and regulations” sign.



Picture 2: A view of the lake and dog beach found within Cosmo Dog Park.

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Picture 3: A view of the active dog area in Crossroads Park in Gilbert.



Picture 4: Rules and regulations of the dog park posted at Countryside Dog Park in Mesa. Park use rules as well as benefits of the dog park to the community are included.

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Picture 5: A view of the active and timid dog (to the right) areas of Countryside Dog Park.



Picture 6: A view of the active dog area and timid dog area (to the left) at Quail Run Dog Park in Mesa.

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Picture 7: A sign posted at Nozomi Dog Park in Chandler detailing other dog parks available for use within the city, along with their locations and hours of operation.



Picture 8: A view of the active dog area within Nozomi Dog Park.

active dog area.

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Picture 9: A view of the active dog and timid dog areas within Shawnee Park in Chandler. The timid dog area fenced off centrally within the active dog area.

APACHE JUNCTION DOG PARK

Apache Junction Dog Park: Examining Features and Costs

Andrew McCarter

PAF 509 Professor Goggin

November 22nd, 2017

APACHE JUNCTION DOG PARK

Abstract

Apache Junction, Arizona, has proposed multiple dog park plans for implementation. This research examines previous dog park site design to help guide what amenities are needed for off leash dog parks. This research set out to determine what amenities are essential to the function of a dog park, and which amenities are desired by Apache Junction citizens. Input regarding desired amenities was compared with previous research to determine what amenities are needed to provide a minimum viable dog park model. Apache Junction citizen input was obtained through 62 surveys distributed at local veterinary hospitals. Approximately 95 percent of survey respondents lived near Apache Junction. Previous research found that shade, water, dog waste disposal, segregated dog pens, and seating are critical amenities for dog parks in the United States. Survey responses from this research corroborated these findings. Shade, water, dog waste disposal units, segregated dog pens and parking ranked highest among Apache Junction citizen survey participants. Shade was consistently rated as the most important amenity among survey participants. Cleanliness was also a crucial factor for survey respondents. Site design and substrate selection have direct impacts on perceived cleanliness of dog park facilities, and are important considerations in planning dog park site design.

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APACHE JUNCTION DOG PARK

Introduction

Dog ownership has become a popular endeavor for many people in the United States. Approximately 39% of US households own at least one dog (Lee, Hyung-Sook, Shapley, M., Chang-Shan, H., 2009). A combination of high density living areas, and dog leash laws has helped fuel the demand for dog parks (Lee, Hyung-Sook et. al., 2009). Dog parks are the fastest growing form of parks in the United States (Schlreth, 2016). Although dog park research is new, researchers have found dog parks promote responsible pet ownership and help to build a sense of community (Batch, E., Hale, M., Palevsky, E., 2001). The city of Apache Junction, Arizona, has formulated two master plans to implement an off-leash dog park. These plans have been in the works since 2006, and were projected to cost approximately 3.5-4 million dollars. These dog park plans listed the following amenities for the park; large space, turf, enclosed areas, lighting, restroom facilities, parking lot, water, sewer/septic, electricity, ramadas for sitting, and rotating/resting pods. A major barrier for implementation lies in the prohibitive costs projected from the previous dog park plans. The goal of my research is to determine which of these amenities are the most important to the citizens of apache junction. Features that are not important to the citizens or critical to the success of the dog park will be cut. This will help to reduce costs, and make it easier to secure funding to implement this project. What dog park features are essential to the function of a dog park? Certain features, such as accessible water, will be essential for a dog park to operate successfully. Which features are the costliest to implement and maintain? Which dog park features do Apache Function citizens desire the most? This research will produce a list of dog park features for site location and design. I hope to produce a model for a dog park that is less costly, while still providing a safe facility for the Apache Junction citizens. Certain features, such as access to clean water, will be essential to the success of the dog park. Previous research and design of modern dog parks will aid in formulating a cost-efficient features list for a new dog park model.

Literature Review

Site Selection Factors

Parks have a rich history of development and design that dates to the mid 1800's (Hawn, 2009). However, design specific to dog parks has only recently become a component of park

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parameters (Hawn, 2009). The first official dog park was founded in 1979 in Berkeley, California (Gomez, 2013). Despite over 30 years of development, there is no ultimate design for dog parks (Hawn, 2009). Site selection is one of the first critical design decisions, and serves as the foundation for a dog park. Dog park sites are typically placed in already established parks (Gomez, 2013). Site selection is important, because it impacts the quality and availability of dog park features. Batch et al. (2001) suggested five criteria for site selection: conflict potential, compatible land use, accessibility, community involvement, and costs. Ann harbor, Michigan also found that conflict potential and compatible land were critical to the development of new dog park sites (Park Advisory Commission, 2014). Certain land characteristics are more conducive to a dog park's needs. Ann Harbor found that flat permeable soil was best for dog parks to promote drainage and combat disease (Park Advisory Commission, 2014). If a dog park has an abundance of sloping land, then it is important erosion does not degrade the substrate. Site selection can impact drainage, and park aesthetics. Adequate drainage is a vital component of dog park maintenance and health. Flat land also makes it easier for owners to supervisor their dogs no matter where they are in the park. Dog parks hinge on the owner's ability to monitor and control their own animals.

Site selection is important to avoid conflict and controversy (Gomez, 2013). For example, a site situated too close to neighborhoods may introduce conflict because of noise concerns. The two most common complaints from neighbors near parks are noise levels and smell (Gomez, 2013). In fact, a lawsuit was filed in a South Windsor, Connecticut, dog park citing a violation of the Environmental Protection Agency statutes against noise pollution (Schlereth, 2016). A similar issue occurred in a dispute between two cities in Ohio, Lakewood and Rocky River. A dog park was constructed near the city limits of Lakewood, and bordered the city of Rocky River. Rocky River, filed suit against Lakewood citing dog bites, noise and odors (Schlereth, 2016).

Site selection is also the primary determinant of park size. Ann Harbor conducted research into park sizes across the country, and found that sizes vary greatly. On average, they found that most parks were .5 to 1 acres (Park Advisory Commission, 2014). Glasser (2013) recommends that dog parks should be at least a quarter acre in size, and recommends a double gate feature to create a buffer zone between animals entering and leaving. Hawn (2009) also recommends that dog parks should be at least a quarter of an acre. Norfolk Virginia lists their

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minimum dog park size to be half an acre for large dog parks, and a quarter acre for small dog parks (City of Norfolk, 2016).

Lee, Shepley and Chang-Shan (2009) found that user satisfaction for site size was high based on the four dog parks they examined. Harmony Dog park is approximately 2.3 acres, and Cattail dog park is 1 acre. Danny Jackson Park is 2.5 acres, and Millie Bush Bark Park is approximately 15 acres. Portland, Oregon cites the following guidelines for site selection (Gelbach, 2013);

- At least 5,000 square feet or .11 of an acre
- Level, dry and irrigated
- Away from playgrounds, residential areas and heavy traffic
- Close to parking
- Evenly distributed throughout the city (multiple dog parks)
- Does not affect fish and wildlife habits or water quality
- Outside main circulation of park (if it is connected to a general park)
- Already sees high off-leash activity

Site selection and substrate can impact the ability to prevent and maintain a healthy park. Dog feces in concentrated areas can bring the risk of parasite infested soil. This issue can be mitigated with good veterinary preventative care, adequate signage and good surface maintenance. Some facilities utilize rotation pods. Allen (2007) found rotating pods to be one important feature to promoting healthy dog park function. Rotation pods allow the soil to recover from all the feces, urine and foot traffic (Hawn, 2009). One gram of dog feces has up to 23 million fecal coliform bacteria (Hawn, 2009). Resting periods vary from site to site, but Hawn (2009) recommends annual rotations to ensure adequate recovery. Paradeis et. al. (2012) also recommends that groundwater quality be monitored in areas in which dog parks are built on sandy soils in high rainfall regions or when irrigation is used. Soils comprised of a more clayey soil offered better protection from urine run-off. Site selection also requires enough space to allow for adequate parking for dog park visitors.

Dog Park Features Overview

Early dog parks were developed with a basic list of features such as; dog bowls, poop bags, water, seating areas, shades and signage surrounded by chain link fence (Gomez, 2013). Gomez designates these dog parks as stage one facilities. Stage two facilities feature rotation pods, and separate areas for big and small dogs (Gomez, 2013). Stage three dog parks expand to feature events and programs such as flyball competitions and training sessions (Gomez, 2013). Bark Park in Fort Lauderdale Florida is an example of a stage three dog park with multiple events and programs (Gomez, 2013). Other cities have devised a list of features that are needed based on health, sanitation and citizen desires. Ann Harbor, Michigan devised a dog park guideline based on research and surveys to determine what features were essential for the future designs of their dog parks. Ann Harbour determined these features to be the most important for their facilities; size, location, water, shade, parking, protection of natural areas, conflict avoidance and suitable land. Many dog parks feature some or all of these items in different forms. Ann Harbor found that the most crucial factors for a successful dog park were cleanliness, maintenance, location, and shade (Park Advisory Commission, 2014).

Allen (2007) examined the following six dog parks; The Camden, Hamilton, Mount Laurel, Princeton, State College and Battery Park. All of these parks were located in the state of New York or New Jersey. Each of these parks had varying types of amenities and designs. All of the parks examined by Allen (2007) had fencing, water, shade and restrooms for dog owners. Some facilities utilized port-a-potty system and others with traditional restroom style buildings. Some dog parks supply food for the dogs, however none of the sites surveyed by Allen (2007) provided food. Concrete paths are sometimes utilized to encourage physical activity, and promote access to the physically disabled (Schlereth, 2016). This feature, along with compliance to ADA standards will improve access to patrons with disabilities (Schlereth, 2016).

Many dog parks also have separate areas for large, and small dogs to prevent smaller dogs from being injured by larger dogs (Schlereth, 2016). Lee et. al. (2009) examined the following dog parks; Harmony Dog Park, Cattail Dog Park, Danny Jackson Family Bark Park, and Millie Bush Bark Park. These dog parks were in Florida, and Texas. All four of the dog parks examined had separate areas for large and small dogs. Consistent with Ann Harbors findings, all the dog parks examined by Lee et. al. (2009) also had shade, seating and water.

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Some dog parks also utilize dog agility or play equipment. However, Lee et. al (2009) findings showed that the most popular activity for dog owners at the park was stationary activities. Approximately 54.5 % of survey respondents spent their time talking with other dog owners and watching their dogs play. This activity generally took place under shaded areas with seating (Lee et. al., 2009). This reinforces previous findings that shade is a vital component of dog park design.

Substrate

The surfacing of the dog park is a critical component of the park. Budget, climate, park size, usage and amenities are critical components in determining the best surface type for the facility (Gelbach, 2013). Glasser (2016) listed the following surface types for dog parks; cement, pea gravel, modified wood chips, grass, artificial turf and mulch. Each surface has benefits associated with them. Mulch is a cheap option, but it makes fecal clean-up harder, and the material needs to be constantly replaced (Hawn, 2009). Turf is a popular substrate but requires constant maintenance (Hawn, 2009). Norfolk, Virginia has committed to using artificial turf as its primary surface (City of Norfolk, 2016). Allen (2007) found that Stonclad GS, although expensive, can be a good surface for heavy traffic areas. The substrate or surface of the facility, can dictate how well the land drains. Improper drainage can become a breeding ground for harmful bacteria, and discourage people from visiting the dog parks.

In selecting a surface type careful consideration of the topography and weather conditions need to be considered (Schlereth, 2016). A park utilizing a mulch or wood chip surface on sloped terrain would result in heavy erosion of the surface under rainy conditions (Schlereth, 2016). Grass is a cheaper substrate, but does not hold up well under heavy foot traffic. Grass also requires constant maintenance, and an irrigation system (Avrasin, 2003). Costs for grass can vary between \$380 and \$500 per acre (Avrasin, 2003). Climate and rainfall can also make it difficult to utilize grass surfaces. Dog parks utilizing grass in desert climates require constant upkeep to keep the grass healthy (Gelbach, 2013). Some facilities opt for a concrete or pea gravel surface near the entrance, exits and water fountains. These surfaces can stand up to the heavy traffic, and prevent areas from becoming barren muddy soil. Allen (2007) noted that the Camden, Mount Laurel, and State College dog parks utilized a grass surfacing that had become so deteriorated

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that the facility was mostly dirt and mud. This negatively impacted the user experience at these facilities (Allen, 2007).

The Hamilton, New Jersey, park utilized pea cement in heavy traffic areas, and grass in less used portions to keep the park in good condition (Allen, 2007). Hawn (2009) also recommends the use of a harder surface around the entry gates, because it is a high foot traffic area. A harder surface can be utilized in the bullpen area, under shade pavilions, benches and picnic tables in the park (Hawn, 2009). Hamilton dog park in New Jersey utilized the pea cement surface near the entry gates and around the water fountains (Allen, 2007). These hard surfaces are also good around signage, trash bags, cleanup bag dispensers and watering stations (Hawn, 2009). Hard surfaces are easier to maintain, but cost more than other surface types (Hawn, 2009). Decomposed granite is another good option, because it is permeable. Decomposed granite is easy on dog joints, and environmentally friendly (Allen, 2007). Decomposed granite can cost anywhere from 6-7 dollars per ton, and a two-acre park could require up to 1500 tons (Avrasin, 2003). Decomposed granite also requires flatter terrain, and good drainage to prevent the pebbles from clogging drainage systems (Avrasin, 2003). Ann Harbour, Michigan found permeable surfacing to be an important component for designing dog parks (Park Advisory Commission, 2014). Substrate maintenance can contribute greatly to yearly maintenance costs for the facility, and needs to be taken into consideration when choosing surface types. A well-maintained park is critical to the health and safety of patrons (Allen, 2007). Schlereth (2016) also found that the surfacing of the dog park is the most important feature, and is often underfunded. In park design, Hawn (2009), also found that park maintenance and adequate surfacing is critical to the success of dog parks.

Fencing

Fencing can be very costly to implement, but is a necessity for off leash dog parks. Most dog parks utilize a steel chain link fence. Heights vary from 4 feet to 6 feet, depending on if the fence is designed for small dogs or large ones (Lee et. al., 2009). A double gate feature is a popular feature of dog parks to allow time for owners to leash and unleash their dogs while entering or exiting (Hawn, 2009). All four sites examined by Lee et. al. (2009) utilized a chain link fence with a double gate entry system. However, no user satisfaction data was collected for this feature. It is recommended to design a double gated entry, and an exit gate at different areas

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of the facility (Lee, et. al., 2009). Dogs that are entering the facility are often more excited, compared to those leaving (Hawn, 2009). Sometimes, this can lead to confrontations at the gate, and a popular mitigation tool is separate entry and exit gates. However, this is costlier, and not all facilities implement this design feature. For dog parks with swimming ponds, Gelbach (2013) also recommends fencing to be placed around those so that owners can control access for their dog.

Water and Restrooms

Allen (2007) recommends that all dog parks provide water for dogs and patrons. Lee et. al. (2009) also found that access to water, and even swimming ponds were ranked highly as factors that motivated dog owners to visit the park. It is noted that these dog parks studied were in warm climates during the summer season, so responses may be biased based on external factors (Lee et. al, 2009). Most dog parks feature accessible water for dogs and humans, as well as shade from the elements (Gelbach, 2013). A common water fountain found in dog parks contains one close to the ground for dogs, and two higher up for human only consumption. Restrooms are also an important feature that facilities have started to implement in dog parks. Only one of the four dog parks examined by Lee et. al. (2009) had restrooms available for dog owners. While four out of five of the dog parks examined by Allen (2007) had restrooms available to dog owners. Three of the facilities utilized a port-o-potty style restroom, and the other two featured a traditional permanent style restroom facility (Allen, 2007).

Shading and Seating

Ann Harbor, Michigan, found that shade was a critical component of their successful dog parks, and is part of their recommended guidelines for creating future dog parks. Lee et. al (2009) findings showed that the most popular activity for dog owners at the park was stationary activities. Approximately 54.5 % of survey respondents spent their time in group stationary activities such as talking with other dog owners and watching their dogs play. Approximately 25.3% of respondents cited individual stationary activities as their most utilized activity (Lee et. al., 2009). This activity generally took place under shaded areas with seating (Lee et. al., 2009). This reinforces previous findings that shade is a vital component of dog park design. It is noted that Lee's study was conducted in the summer months in Florida, and Texas. This may have impacted the results in relation to the emphasis on shade, and activity levels.

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Gomez (2013) also found that owner and pet socialization was a popular theme in survey respondents in their case study of the Colonial Greenway Dog Park in Norfolk, Virginia. Shade in dog park design generally fall into natural, such as trees, or manmade structures. If natural shade is used, such as trees, small fences around the tree can be used to protect the tree from dog urine (Hawn, 2009). Manmade shade structures vary greatly, and range from gazebos to ramada style buildings.

A common design theme is to provide seating under the shade structure. Seating options vary greatly. Many facilities use an outdoor bench style seat. All the facilities examined by Lee et. al (2009) had very low user satisfaction rates for seating. Seat satisfaction ranked as the second lowest user rated feature among all four dog parks studied (Lee et. al., 2009). Lee's research indicated that seats location should vary, so that users can sit in groups or by themselves. It is not clear if comfort was a factor in user satisfaction with seating provided at the sites Lee examined. Hawn (2009) recommends that seats be placed on the edges of the facility to ensure owners can observe their dogs in all areas of the facility. Lee's dog park guidelines emphasized seating with tables to encourage conversation and gathering, and chairs that can be moved so that users can ensure they are always in the shade or in the sun during colder months. (Lee et. al., 2009). However, Hawn (2009) warns of utilizing tables, because it can encourage users to bring in food or drink into the facility. User who bring in food can cause aggressive or protective behavior from the dogs (Hawn, 2009).

Parking and Lighting

Allen (2007) recommends gravel parking lots, because they do not cause storm water runoff. However, gravel is more difficult to maintain (Allen, 2007). Danny Jackson Family Bark Park in Houston, Texas, scored a 4.81 out of 5 for user satisfaction (Lee et. al., 2009). The Danny Jackson Family Bark Park utilized an asphalt parking lot with 100 parking spaces. This parking lot is very large compared to others examined by Lee's research. Harmony dog park in St. Cloud, Florida, received the lowest rating for parking satisfaction at 3.64 out of 5. Harmony dog park has no designated parking lot, and users must park on the side of the street. Cattail dog park in Woodland, Texas, also scored high in user satisfaction (4.09) with a gravel lot that contains 24 spaces, and is shared with other park visitors (Lee et. al., 2009). Based on Lee's study, it appears that if parking was provided within a reasonable distance to the dog park, then

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users were satisfied. This fits with other research that parking lots be close and easily accessible to dog park patrons.

Lightning is also often used in dog park facilities, especially for parking lots Allen (2007) examined 6 dog parks and found all but one had fixed lighting, but none of them were energy efficient. Some of the dog parks Allen (2007) examined had standard street lamp lighting, and others opted for colonial style lighting. If the facility has trees that prohibit or limit access to power lines, low voltage lightning can be used (Allen, 2007). Many dog parks close at dusk, but lightning can aid in preventing vandalism at night (Hawn, 2009). Dog parks are often built in already established parks, which already provide electricity and lighting.

Dog play equipment

Some dog parks provide dog equipment for agility exercises, or just general play. Gelbach, (2013) does not recommend the agility equipment used in professional competitions, because it can be high and narrow. Look for equipment lower than 3 feet with slip resistant surfaces, and equipment covered by a warranty (Gelbach, 2013). Dog play equipment ranges from ladders, hoop jumps, crawling tubes and more. However, dog park play equipment may not be a good option if the dog park allows children under 12 years of age. Hawn (2009) found that children often want to use the equipment, which can create safety issues. It is also recommended to segregate this equipment into its own fenced area, so users can decide if they want their dog to use the equipment (Hawn, 2009). None of the six dog parks examined by Allen (2007) featured any kind of dog playground equipment. Lee et. al. (2009) examined four dog park sites, and none of them had dog play equipment either.

Signage and Pet Waste Stations

Signage plays a critical role to prevent disease in dog parks. Soils can become contaminated if dog waste is not picked up (Allen, 2007). The most common intestinal parasite in dogs is the *Toxocara Canis*, and can be spread from contaminated drinking water or licking contaminated paws, soil or fur (Allen, 2007). *Toxocara Canis* develop into larva, and is found in dog feces. Other common parasites are the hookworm *Ancylostoma caninum*, whipworms *Trichuris vulpis*, and tapeworms *Dipylidium caninum*. A heartworm preventative can be important to prevent the spread of these worm based diseases (Allen, 2007). These parasites can

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live a long time on many surface types, including concrete (Allen, 2007). Feces removal is also a critical component of parasite prevention (Allen, 2007). An effective way to promote sanitation and reduce parasite infestations in dog parks is to provide self-service pet waste stations with pick-up bags (Hawn, 2009). Research conducted by Leonard, Zolik and Matese (1979) found that a mix of signage along with instruction and modeling led to over 80% of dog owners picking up dog feces. Signage by itself had negligible impact on compliance. Most pet waste stations have signage, and directions on how to throw away pet waste. The waste bags for these stations need to be constantly replenished. Allen (2007) found that one of the common responses to his survey to improve user experiences at the six dog parks he examined was to ensure that the bags at the waste stations were always stocked. Adequate waste management is critical to combat disease, and improve user experience.

Signage is also important so that users understand the rules and regulations for the facility. Lee et. al (2009) recommends that signage be placed at the entrance with the park rules and hours clearly posted. Park rules vary by location. Colonial Greenway Dog park, in Norfolk Virginia utilizes the following dog park rules;

- 1.) Owners are responsible for bodily injury and property damage caused by their dog
- 2.) Owners must clear up waste left by their dog
- 3.) Owners must remain with their dog and keep in sight at all times
- 4.) Dogs must wear valid rabies vaccinations and city license tags
- 5.) No dogs in heat are allowed
- 6.) Puppies must be older than four months old
- 7.) Dogs must be leashed when entering and leaving the parks
- 8.) Dogs that show aggression toward people or other animals must be removed from the park
- 9.) A maximum of three dogs per owner is allowed at any one time.

One way to mitigate noise complaints from nearby neighborhoods is to ensure the park closes before dark.

Research Methods

The literature review will be utilized to establish a list of possible features for a dog park, and determine which of these features represent the bare minimum set of amenities for a safe and useable dog park. Costs will be examined through the literature review, and compared with the cost of Apache Junctions previous dog park plans. A survey with a mixed methods approach will be utilized to capture Apache Junction citizens input on desired features. I will also use the survey to determine overall interest in the dog park, and explore citizen opinions on a monthly or yearly service fee to aid in combating park upkeep costs. The following is a list of research questions the research will answer;

- What dog park features are essential to the function of a dog park? Certain features, such as accessible water, will be essential for a dog park to operate successfully.
- Which features are the costliest to implement and maintain? Features will be itemized based on monetary costs to produce a features list.
- Which dog park features do Apache Junction citizens desire the most? Desire will be measured through surveys completed by Apache Junction citizens to determine which features they value the most.

The VCA Apache Junction Animal Hospital, and the Companion Pet Clinic in Gold Canyon, Arizona, will be the two sites that the surveys will be distributed. I do not reside in Arizona, so the surveys will be mailed to each survey site. The survey will be completely anonymously, so names and demographic data will not be collected. My contacts at each facility have agreed to distribute the surveys to patients in the waiting room. VCA Apache Junction Animal Hospital and Companion Pet Clinic personnel understand that the primary goal is to distribute surveys to those with dogs, and to not allow the same people to repeat the survey. Approximately 100 surveys will be issued at each location over a one-week period. Each survey will be issued a unique identifier code that identifies the location and number of the survey issued. At the end of the survey period the surveys will be mailed back to me for analysis.

Results from the survey will be compiled, and analyzed. The survey results will provide me with information regarding desired amenities for the dog park, as well as opinions regarding dog park membership fees. The survey will also provide data on how many of the participants have been to a dog park before, and if they live in the Maricopa or Pinal Counties of Arizona. Surveys have low response rates, and could be a weakness for my research. I chose to keep my

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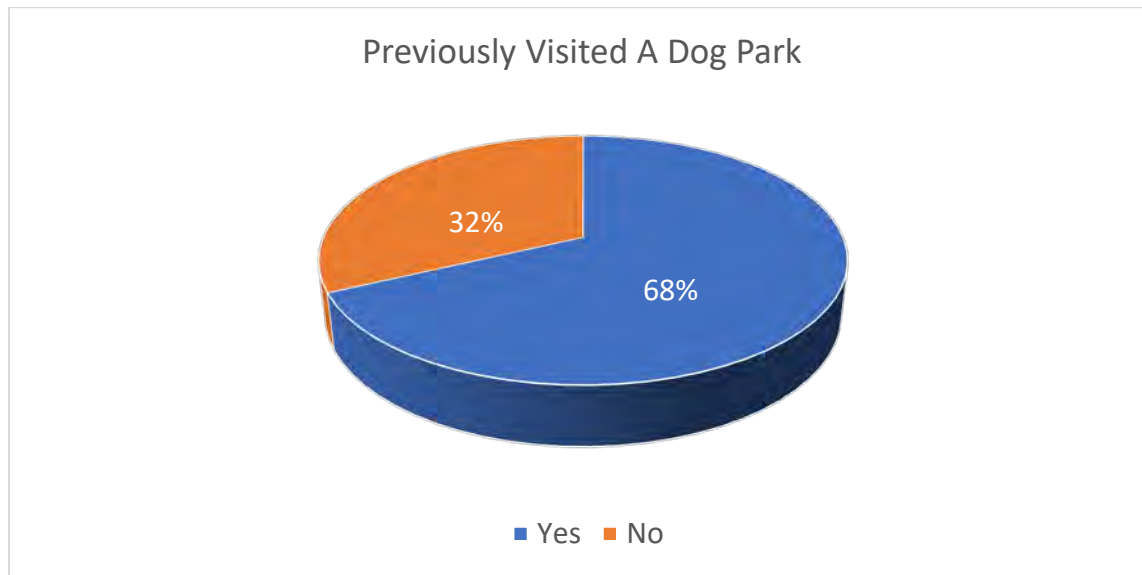
participants completely anonymous, and hope it will encourage participation in the survey. I wanted to have more survey distribution sites to increase survey numbers. Petco, and other pet stores in the area would not allow me to send surveys to be completed for my research. Limited survey sites and low response rates could be a weakness of this research. I am also depending on my surveys being distributed by other people, so I am unable to explain or answer specific questions about the surveys. If directions are not clear, participants may have trouble answering questions. The most important question on the survey requires participants to rank each amenity from most important to least important. If directions are not clear or followed by the participants, it could result in data that is completely unusable for participants who do not follow the instructions correctly. However, surveys are good for obtaining input regarding individual opinions on topics, which is the main focal point of my research. The survey will aid me in creating a feature list of desired amenities for the people who are most likely to use the dog park in the future.

Findings

Survey data was obtained from The VCA Apache Junction Animal Hospital, but no data was obtained from The Companion Pet Clinic. My contact with the Companion Pet clinic did not distribute the surveys, so no data was obtained from this facility. Survey data consisted of 62 completed surveys, however only 29 of the 62 responses correctly answered the amenity ranking question. This question asked respondents to rank each amenity from 1 (most important) to 10 (least important) using each number only once. Some respondents left this question blank, or used the same numbers repeatedly. A weighted system was used to transfer the data into a more easily understandable scale. In this new weighted scale, 10 was the most important amenity, and 1 was the least important. Amenities with overall higher scores were ranked as more important than amenities with lower overall, and mean scores.

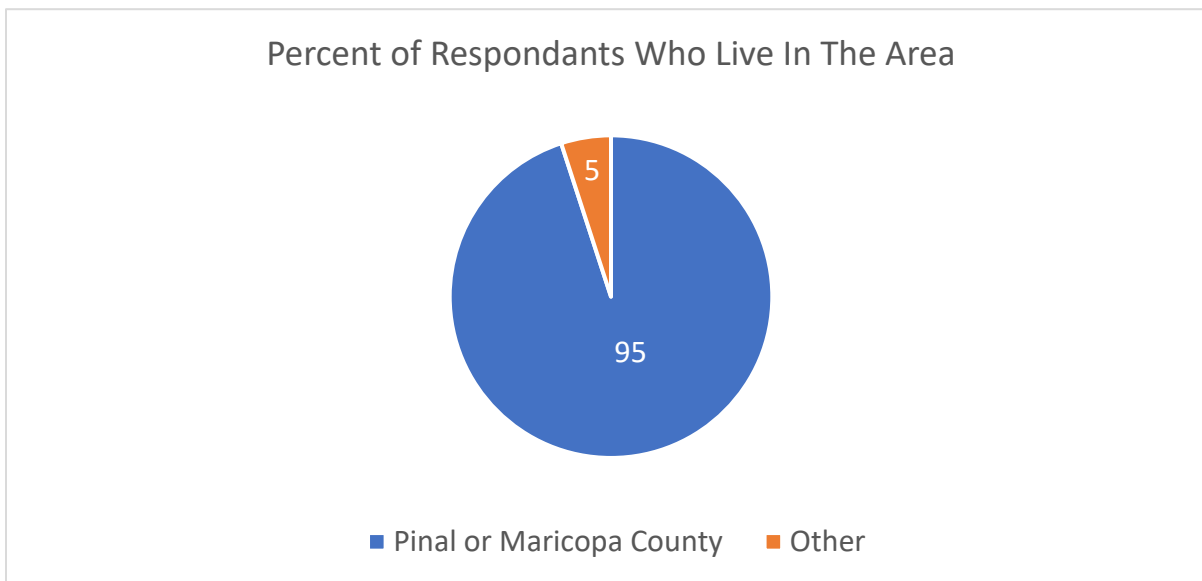
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Figure #1



Most of the respondents had visited a dog park before taking this survey. Figure one shows that Approximately 68 percent of respondents indicated that they had visited a dog park before. This question helped to show a point of reference for their opinions regarding amenity selection. Figure #2 illustrates that Approximately 95 percent of survey respondents lived in Pinal or Maricopa county, Arizona. This question helped to establish that the survey respondents represented a population that would live in driving distance of the dog park, and therefore be likely patrons of a future dog park in Apache Junction.

Figure #2



Out of the 29 respondents that answered the amenities question correctly, subjects indicated that shade was the most important amenity. Shade ranked in at a score of 245 with a mean ranking of 8.4, and a mode of one. Approximately 44 percent of all survey responses indicated that shade was the most important amenity, and 27 percent of respondents ranked it as the second most important feature. This feature had the highest and most consistent ranking as the most important amenity out of all the other options. This data is illustrated in figures three and four.

Water was ranked the second most important amenity with a total score of 203, and a mean rating of seven. This amenity was described as water for people, and dogs at the park. The mode for the water amenity ranking was nine. Approximately 24 percent of completed surveys indicated that water was the second most important amenity for dog parks. See figures three and four.

Dog waste stations ranked third most important with a total score of 183, and a mean rating of 6.34. The mode for dog waste station ratings was eight. Approximately 27 percent of survey respondents ranked dog waste stations as the third most important dog park amenity. Respondents also indicated that a clean, and well-maintained park was important to them. Approximately 96 percent of surveys indicated it was important that the dog park was kept clean.

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Besides basic amenities such as water and shade, respondents indicated that dog waste cleaning stations were the most important.

The fourth most important amenity was segregated areas for small and large dogs with a total score of 169. The mean rank for this amenity was 5.8, and the mode for this category was ten, nine and four. Approximately 13.8 percent of respondents ranked this amenity as being the most important amenity.

A parking lot designated for dog park patrons ranked as the 5th most important amenity with a score of 149. The mean ranking for this amenity was 5.13, and the mode was seven. This amenity was ranked as the seventh most important amenity in 27 percent of survey responses. Seating data rankings ranked this amenity as the sixth most important feature with a total score of 143. The mean ranking for this item was 4.93, and the mode was five. Approximately 20 percent of all respondents believed seating was the fifth most important feature for a dog park facility. The total scores for parking lot, and seating were very close. The parking lot data only scored 6 points higher than seating.

Ponds, or swimming areas for dogs was ranked seventh with a score of 134. The mean ranking for this item came out to 4.62, with a mode of one. Approximately 34 percent of survey respondents indicated that a pond amenity was the least, or second least important amenity.

Restrooms were ranked as the 8th most important amenity with a score of 131, and a mean ranking of 4.51. The mode for this feature was nine. Dog play equipment came in as the second lowest rated amenity. The mean score of this amenity was 4.41, with a mode of four. The lowest rated amenity was lighting, with a score of 114. The mean rating for this feature was 3.93. Figures three and four illustrate these comparisons between amenities.

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Figure #3

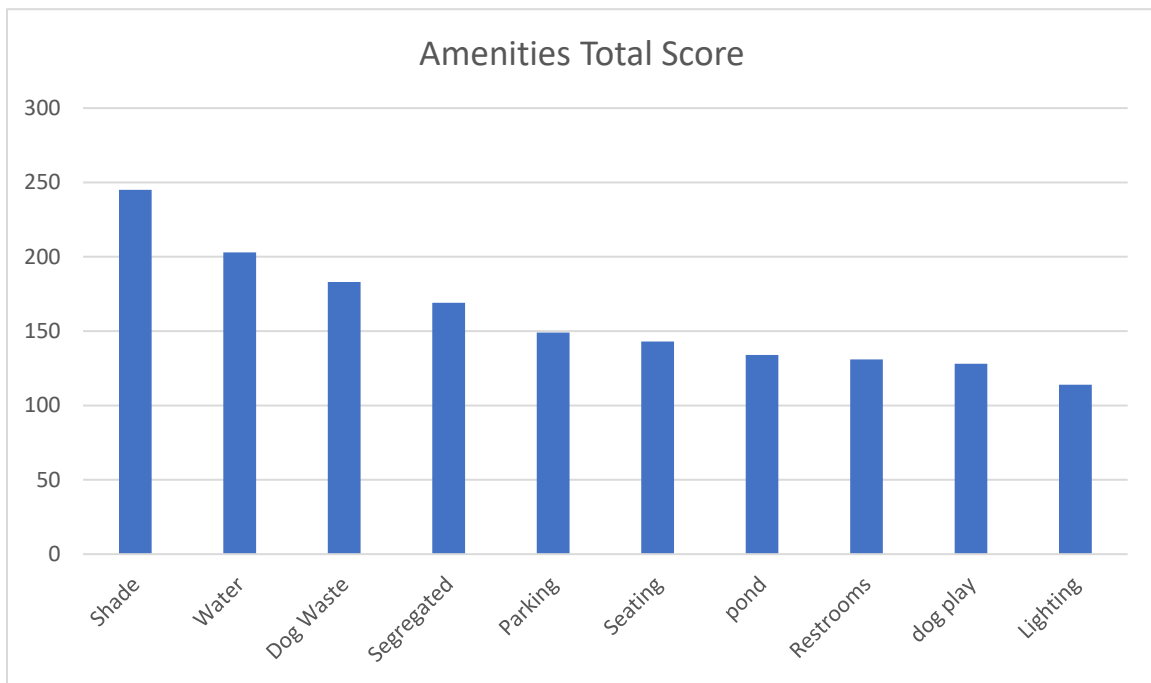
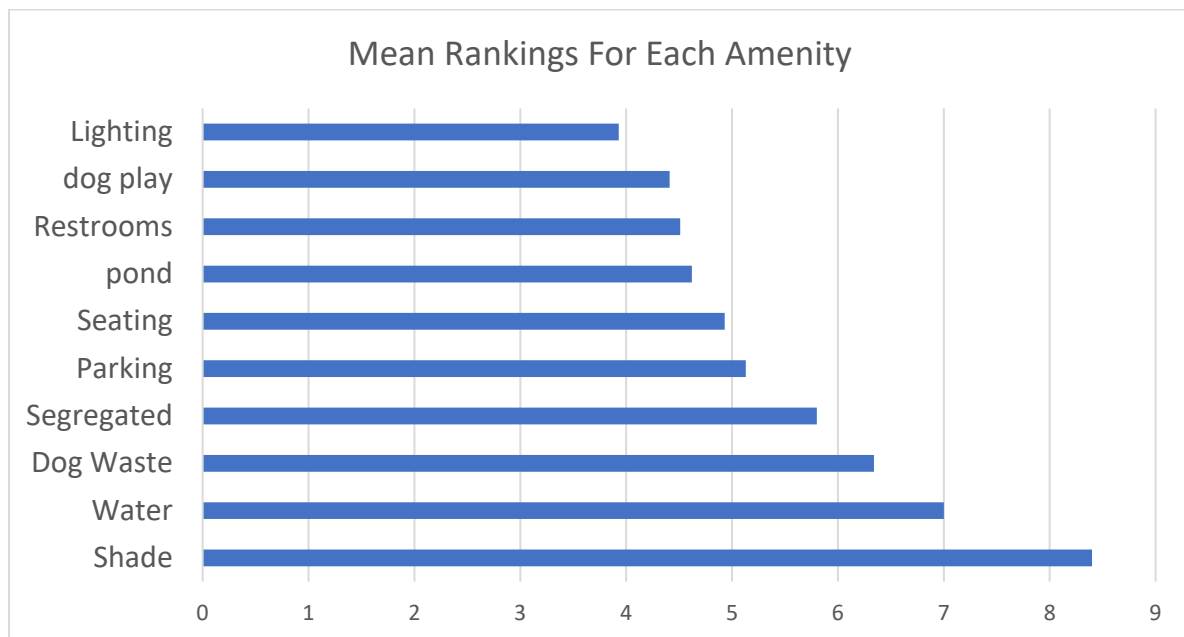


Figure #4

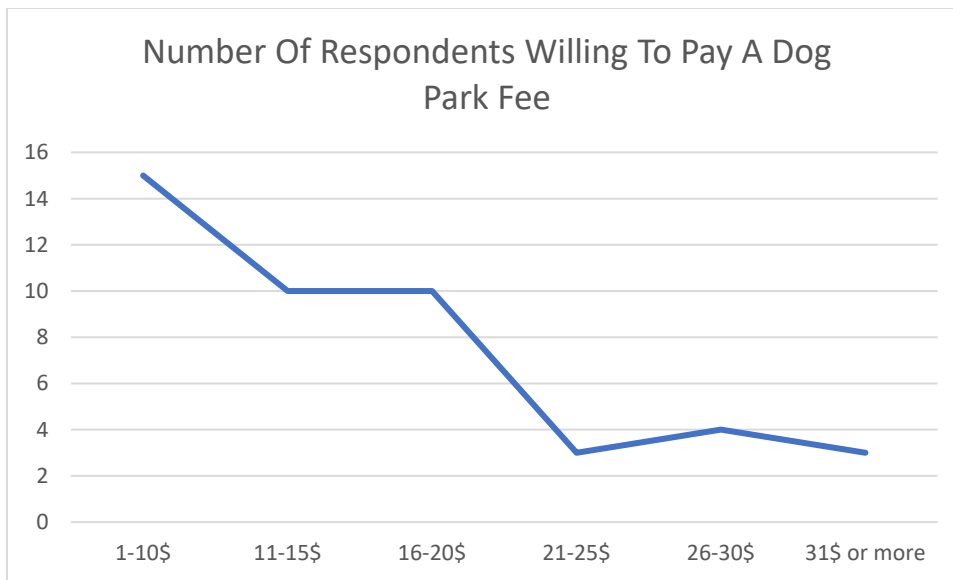


Opinions regarding membership fees to help maintain a dog park was also explored on the survey. Only 8 percent out of 60 responses indicated that they would not be willing to pay any kind of membership fee to use dog park facilities. The majority, approximately 25 percent,

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indicated that they would be willing to pay an annual fee of 1-10 dollars to use a dog park. About 17 percent of survey data indicated that an annual membership fee of 11-15 dollars or a fee of 16-20 dollars was acceptable. Only about seven percent indicated that they would pay an amount of 30 dollars a year or more to use a dog park. Opinions regarding membership fees were positive overall, with 76 percent of respondents indicating that they would be willing to pay some sort of membership fee to help with park upkeep and ensure animals are vaccinated prior to park use. Approximately 16 percent of surveys indicated they were unsure if they would be willing to pay a dog park membership fee.

Figure #5



Most of the survey participants were Maricopa or Pinal county residents, and had experience visiting previous dog parks. This data helped to illustrate the relevance of their opinions regarding dog park facilities, and established that they are a sample population that a dog park located in Apache Junction would be serving.

Based on all the data collected from the 29 survey respondents, the top five desired amenities are the following; shade, water, dog waste disposal units, segregated dog enclosures, and parking lots. However, the scores for parking lots, and seating were very close. Seating ranked 6th, but on a larger sample size seating could rank higher than parking lots. Survey findings regarding shade, water and waste disposal units are consistent with findings from

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previous studies in our literature review. Shade, water and dog waste units were determined to be critical components in other dog parks examined in the literature review, and was also reflected in survey respondent's opinions. This pattern was prevalent in not only the total scores for these amenities, but also in the modes for each category. Shade and water are likely to be even more important in a hot climate, such as Apache Junction, Arizona. Based on previous findings in the literature review, seating is also a vital component of a successful dog park. Survey results were very close between parking lots, and seating scores.

Survey respondents overwhelmingly believed that park upkeep and cleanliness was a critical component for dog parks. This was also reflected in the high scores given to the dog waste disposal unit amenity, and helps guide recommendations for park upkeep and design. Previous research has shown that surface type, and design play a critical role in park maintenance. Surfaces that degrade, such as grass, can create the appearance of a dirty or poorly maintained park. Surface type plays a key role in the ability to keep the appearance of a clean park. Surfaces, such as decomposed granite, are more expensive, but are important for areas that see high foot traffic. Failure to budget for a more durable surface, could result in destroyed surfaces that degrade into muddy areas. Simple amenities such as fencing, water, shade, waste disposal units and seats can be implemented at minimal cost. A successful dog park plan should allocate as much of the budget as required to ensure the correct surface type is chosen, and ensure it can be installed and maintained properly.

Responses to dog park membership fees were overall positive, but were mostly on the low end. Most users reported only being willing to spend 1-10\$ on an annual dog park membership. This would likely not be a significant amount of income for the facility, but it serves another purpose. Dog membership fees help to keep animals that are not properly vaccinated out of the park, and contributes to the health of the facility. Park cleanliness was important to 96 percent of survey participants, and dog borne illnesses can be an issue in dog park facilities if measures are not taken to prevent them. The use of a membership fee will provide users with the added knowledge that efforts are being taken to keep the dog park a safe place for them and their canine companions.

Based on previous dog park research, most criteria for park size calls for at least half an acre of land. Generally, larger is better, but it must be small enough that dog owners can see their pet at any vantage point in the park. Another important consideration for deciding on dog park size

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is the inclusion of segregated dog park areas. Segregated areas for large, and small dogs ranked as the 4th most important feature based on our survey data. Previous research also reinforced the importance of separating large dogs from smaller ones.

An interesting result was the low ranking for a pond or swimming area for dogs. Even in a warm climate like Arizona, participants did not rank this amenity as being very important. Previous research has shown that dog park owners may not want their dogs to become dirty by swimming in a pond, and could be a reason why it was ranked so low in this survey. Parks that utilize this feature, usually provide dog washing stations for users to clean up their pet before leaving the facility. If a dog washing station was included as a package amenity with the pond on the survey question it could have impacted the results. However, standing water can also be a source for disease and should be accounted for if deciding to utilize a pond or swimming area in a dog park. Previous research also recommends fencing ponds, so users can control access to each pet.

Restrooms, dog play equipment and lighting received low scores on survey responses. Restroom responses may be low, because respondents didn't believe they would be at a dog park long enough that they required a restroom be nearby. It appears participants believed a restroom was not required for an enjoyable dog park experience. Results for dog play equipment, was also consistent with previous research that found it to be underutilized by pet owners. Participants ranked dog play equipment as the second least desired amenity. Although lighting received the lowest scores in our survey data, lighting could still be a vital component of a dog park. It is unclear why lighting was ranked the lowest. Participants may not believe they would visit a park at night and therefore would not need lights. Previous research has shown that lights can be important to prevent vandalism when the park is closed. Most dog parks close at night, but if dog park rules allow the park to stay open lights would be an important amenity to consider.

Recommendations

Research and design in dog park facilities is a relatively new field. Due to a significant increase in dog ownership, especially in congested cities, has contributed to a need for open spaces for owners to take their pets. Site selection should be in an area that is away from neighborhoods, and land that is flat and permeable. Based on Apache Junction's limited funds, a stage one dog park should be pursued. Gomez (2013) designated a stage 1 dog park as one that

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has the very basic amenities. A standard four to six-foot height chain link fencing can be utilized to enclose the facility with an entry pen to allow leashing and unleashing of dogs prior to park entry. Previous research has shown that shade, water, dog waste disposal, segregated dog pens, and seating are critical amenities for dog parks. Although my sample size was less than 100, the data obtained during this research corroborates these findings.

Dog park size should be at a minimum half an acre for a large breed dog park, and a quarter acre for a small breed dog park. It is important that the park include segregated areas for large, and small dogs to prevent injuries. Amenities, such as dog play equipment, and ponds are nice to have, but not important to establish a minimum viable dog park. A smaller dog park with basic amenities can be established at a low cost. A dog park in North Myrtle Beach spent \$25,000 on steel chain link fencing that enclosed a half an acre of land, and \$5,500 on three water fountains. North Myrtle Beach spent approximately \$4,000 on bench style seating, and utilizes trees for natural shade. Costs vary greatly for each, depending on where it is purchased, and what it is composed of. A popular cost cutting technique is to utilize your own labor to install these amenities, especially when installing a substrate.

Time and resources should be spent on ensuring an adequate surface is selected based on climate, terrain and facility use patterns. The impact of the surface type on maintenance and perceived cleanliness of the park makes it one of the most crucial factors in designing the park. High foot traffic areas, and areas surrounding drinking fountains require a harder surface to prevent surface degradation. Data obtained through this survey rated lighting as a very low amenity, however if the park is open at night it is likely that it would be required. Many parks close at night, but it may be beneficial to allow the park to stay open after dark.

The use of a dog park membership fee is not likely to generate significant income, but can be used as a barrier of protection for users to ensure the park is protected from dog borne illness. My contact with VCA Apache Junction Animal Hospital, Doctor Danielson, believed a membership fee would be a great idea to ensure dogs are vaccinated prior to gaining admission to the dog park. VCA Apache Junction Animal Hospital was on board with being a distributor of a key card type system, but would likely require other animal hospitals in the area to participate. A veterinary facility would be a good facility to distribute a key card to allow access to a membership controlled dog park. Previous research has also shown other clever ideas to help with park startup costs and maintenance. A popular startup program is to allow members of the

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community to purchase bricks, with personalized engraved messages. The fee covers the cost of the bricks, and generates extra revenue to finance the building of the park. These bricks are used to build parts of the park. Businesses often purchase these bricks, because they function as cheap advertisement.

Based on previous research, and data collected during this research, dog park patrons see dog parks as simple parks with open space. Patrons desire basic amenities, and bigger is not necessarily better. A park with a large features list will be barren if the design of the park does not facilitate an easily maintained park. Apache Junction has had an issue securing funding for a dog park, so the initial design should be conservative and feature the basic list of amenities. A half-acre plot of land with shade, water, waste disposal units, segregated dog pens and a parking lot is the minimum viable dog park design. The challenge is in choosing an adequate surface substrate, and ensure that surfacing is well maintained to promote a clean and successful facility on a limited budget.

Conclusion

Previous research has shown that although dog park design is in its infancy, there are some establish standards in the industry. Site selection factors include the need for flat permeable land, and consideration of nearby neighborhoods to prevent conflicts. Dog parks typically are often segregated with at least half an acre for large dog parks, and a quarter of an acre for small dog parks. Shade, water, segregated dog pens and seating are often seen in dog parks across the United States. Gomez (2013) designates these as stage one dog parks, that provide basic amenities. Survey responses from Apache Junction citizens fit in line with this stage one dog park model. Amenities, such as swimming ponds and dog play equipment, are amenities that can be added after the basic dog park model is implemented and successful. Apache Junction should provide these basic amenities to reduce costs, and provide a dog park model that provides amenities that are both required, and desired by Apache Junction citizens.

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Off Leash Dog Park for Apache Junction: An Argument for Public-Private Partnerships

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Abstract

This paper offers an argument for a public – private partnership (PPP) between the City of Apache Junction and local businesses for the creation and management of an off - leash dog park. This paper explores the financial and managerial responsibilities of creating an off -leash dog park and considers funding sources through PPP. This paper explores a variety of PPP definitions and principals and applies the findings to the specific needs of the City. This paper forms three hypotheses to support a PPP formed with a local business with a strong tie to the city and believes a PPP would best serve the need to fulfil the desire for a off -leash dog park with the formation of a multi – use dog park. Through communications with local organizations, this research a response that current businesses have no interest in forming a public- private partnership. This research investigates ways to improve the communications and formulation of samples selected to provide further information. This paper provides additional funding ideas opportunities through a lens for PPP in a more nontraditional sense of municipal bonds and volunteer groups.

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Apache Junction was incorporated as a city in 1978. (Apache Junction History, n.d.). Apache Junction began its growth in Arizona as a space for community and business growth. The City of Apache Junction has seen exponential growth of residents and businesses have created a more stabilized economy, where unemployment is at a low of 3.99% (Solley, 2017). While the community began to flourish, and families settled, city officials looked to create an environment welcoming to family pets as well. Community support for a city operated off leash dog park became popular, however, expensive.

It is important to understand the positive effects of an off-leash dog park. First, a dedicated space for animals provides an opportunity for exercise or socially (American Kennel Club, n.d.). Exercising and socially adept dogs are proven to be better behaved and less likely to destroy property (American Kennel Club, n.d.). Additionally, dog parks provide a space for socializing for dog owners and promotes the importance of responsibility (American Kennel Club, n.d.). Dog owners can use an off -leash dog park as a space of exercise and meet new community members. Training dogs off-leash leads to less aggressive animals and more comfortable dog owners (American Kennel Club, n.d.).

The costs associated with the creation and maintenance of an off-leash dog park is substantial. In the initial master plan options that were adopted in 2008, the city estimated the costs for the two prospective locations at Silly Mountain or at Prospector Park between \$3.5-4 million (City of Apache Junction, 2017).

The implementation of an off-leash dog park will provide a safe space for Apache Junction dogs and their families. This research will provide officials information on the significant relevance for an off-leash dog park as a benefit to the city. This researcher believes the best and most efficient method is to create a public-private partnership for a mixed use -venue with either a for – profit or nonprofit organization. The following research questions will guide this data collection and analysis:

- Q1: Would a public-private partnership to form a multi-use venue to include an off-leash dog park benefit the City of Apache Junction?
- Q2: Is there any interest within current businesses/organizations for said partnership?
- Q3: Which model would be of more benefit to the City: Public and for-profit combination or Public and non-profit combination

Several definitions are needed before moving forward. This researcher uses the World Bank Group's PPP Knowledge Lab definition of public-private partnership for this project. That

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definition is: "a long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance" (What are Public Private Partnerships?, 2015). Another definition need is for Mixed-use venues (also notated in this research as multi-use venues). This research is based on the following definition from the International Council of Shopping Centers (2006):

A mixed-use [development] is a real estate project with planned integration of some combination of retail, office, residential, hotel, recreation or other functions. It is pedestrian-oriented and contains elements of a live-work-play environment. It maximizes space usage, has amenities and architectural expression and tends to mitigate traffic and sprawl.

At the inception of this assignment, this researcher asked many questions to analyze. Upon further development, the narrowed the scope of research has been narrowed to the public-private partnerships opportunities for the creation of an off-leash dog park. Successful completion of this project will provide city officials with an in-depth study of possible public-private partnerships within Apache Junction. This will provide best model practices, specific local organizations standings, and suggestions for moving forward to implementation.

Literature Review

In his research, *The Public Value of Urban Parks*, Walker examines the benefits and potential problems of expanding involvement of city parks to additional entities. Most importantly, Walker expands the meaning of “parks” to create a more vivid picture. While most see a park, and think of an area for kids to play, Walker expands the definition to include the financial, community, and facilities considerations to be addressed. Through the lens of full community benefit, Walker (n.d.) argues that parks are valued by all members of the community, even those who do not use them in their everyday life “One study found that three-quarters of the respondents who said that they did not themselves use parks nonetheless reported receiving benefits from them (Godbey, Graefe, and James 1992 qtd. by Walker, n.d).

The financial benefit to having a well-maintained and established park cannot be overlooked and provides added support for the off-leash dog park in Apache Junction. In a survey procured by Walker, the results found “the price of residential property—based on data from three neighborhoods in Boulder, Colorado— decreased by \$4.20 for every foot farther

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away from the greenbelt” (Correll, Lillydahl, and Singell 1978, qtd. by Walker, n.d.).

Additionally, Walker found that the community benefits were expansive. The social good of parks were found in surveys from residents who believe that parks helped create bonds between the residents, regardless of race, gender, or class (Walker, n.d, pg. 4). The research also highlights the benefits of creating partnership to cover additional expenses through volunteer or donations by examining the City of Portland’s partnership with local schools, YMCA, and Boys and Girls Clubs to name a few (Walker, n.d, pg. 4).

It is important to notate that this research is mainly directed at urban parks, or parks mainly created or founded in metropolitan areas such as Chicago and Portland as notated in the research. This research provides ample corroborating evidence of the success an area finds through public-private partnership for the park area. This researcher included this to show that successes that municipalities find with these partnerships, albeit the landscapes are different in relation to Apache Junction and the off-leash dog park proposal. However, should this information prove successful in this arena, City of Apache Junction officials could be moved to reconsider the proposed areas for the off-leash dog park to a more populated city area, possibly closer to Downtown rather than the more rural areas of Silly Mountain or Prospector Park.

Growing from the previous research mentioned, this researcher views parks as “green infrastructure” or important and needed structures for city success. The literature provided by Ahmed M. Abdel Aziz examines the implementation of successful Public-Private Partnerships (notated as PPP). This can be directly relatable to the City of Apache Junction should a PPP prove most successful for the creation of an off-leash dog park.

Public- private partnerships are often considered as an alternative option for city or local organizations to cover any issues that arise, mainly financial (Abdel, 2007, p.918). This specific research argues two approaches for implementation; finance-based or service based. Finance based relies on private funding to cover all costs whereas service-based, the private sector will provide the management of the partnership (Abdel, 2007, p.918). In relation to the City of Apache Junction needs, this researcher examines the outcomes of a service-based accommodation for the PPP of a multi-use off leash dog park as the City is anticipated to be involved.

Though this research is examined through a lens of international public-private

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partnerships, the findings can be applied to all PPP. Abdel (2007) argues that the success is based on meeting the following principals (p.920):

1. Institutional/legal framework
2. Availability of policy and implementation units
3. Perception of finance objectives
4. Perception of risk allocation and contractor's compensation
5. Perception of value- for- money
6. Process transparency and disclosure
7. Standardization of procedures and contracts
8. Performance specifications and methods

Each principal is vital to the overall and continued success of any project. In the lens of the needs for Apache Junction, the above principals provide a guideline for community surveys and business needs assessments. Each principal serves as an agreement between the community and the entity trusted for a multi-use venue. The principals guarantee that the project is legally executed, economically efficient, and will be sustainable upon completions.

P.F.J. Eagles (2009) further investigates the Public Private Partnerships (PPP) through the lens of recreation and tourism partnerships. In his investigation, he provides ten criteria needed to be met for success of recreation and tourism management models. Those are as follows: Public participation; Consensus orientation; Strategic vision; Responsiveness to stakeholders; Effectiveness; Efficiency; Accountability to the public and stakeholders; Transparency; Equity; and Rule of law (Eagles, 2009, p. 233) We see the similarity in PPP implementation, with heightened focus on the importance of community participation. A strong voice on community impact and return on investment aligns itself with the goals stated from the citizens of Apache Junction (Apache Junction Town Hall, 2017, p.4).

Through his research, Eagles examines eight management business models for tourism and recreation through a quantitative study. Each model is ranked on a scale from 1 to 5, one representing “very weak” to five as “very strong” against each of the ten criteria listed above (Eagles, 2009, p.236). For the purposes of application to the City of Apache Junction, the organizations sampled for this research will be defined as one of the top two models: Public and for- Profit combination or Public and Nonprofit combinations.

The first model, the Public and for – Profit combination model, scored 41 out of 50 points. This model partners the public with for – profit entities such as restaurants, stores, or

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equipment rentals (Eagles, 2009, p.239). This is strong supported by “public participation”, as one can expect consumers of the specific products will visit the store to make purchases. Additionally, this scored a five out of five on the “efficiency” criteria, suggesting that it is expected that this model will remain regulated financially. The lowest marks were found in transparency and accountability, suggesting that the public has little faith that a private company would be transparent with financial or management issues (Eagles, 2009, p.243). Further, the public might wonder, who would be financial responsible should the company fail or go bankrupt?

The second model, Public and Nonprofit combination, scored 40 out of 50 points. This model partners the public with nonprofit organizations. These organizations are usually community or faith based groups, generally with a specific focus on unity and/or education (Eagles, 2009, p.240). The highest ranking was in “public participation” suggesting public support for opportunities for community engagement (Eagles, 2009, p.240). Also, this model scored highest marks in “efficiency” due to donations and “rule of law” as the organizations are generally assumed to follow rules and regulations (Eagles, 2009, p.240). The lowest markings were in “accountability” as nonprofit organizations are often highly focused on volunteers for success. The research suggests that the public is concerned with the possible outcomes of a low or zero volunteer turnout or if the nonprofit should close to due financial concerns. For the City of Apache Junction officials, the above research provides legitimate concerns and questions for a public-private partnership and its impact on the city.

Public – Private Partnerships have been successful Parks and Recreation divisions within the County of Maricopa in the past. Previous agreements include Adobe Dam Regional Park, Buckeye Hills Regional Park, Estrella Mountain Regional Park, Lake Pleasant Regional Park, and Paradise Valley (Arizona Parks and Recreation Association, n.d.). Within these partnerships, several multi-use avenues were pursued. Within Estrella Mountain Regional Park, park-goers can golf, go horseback riding, or camp overnight. At Lake Pleasant Regional Park, one can go boating or enjoy a meal at the restaurant at the marina. At the Adobe Dam Regional Park, go-karts, paintballing or a trip to the water park are all options (Arizona Parks and Recreation Association, n.d.). Each partnership was structured with public debate; determining the best options for the both ends of the partnership. Each relationship outweighed the possible benefits to the public (jobs, product, etc.) the city (investment opportunities, etc.) against the possible

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issues (money lost, corporate greed, etc.) (Arizona Parks and Recreation Association, n.d.). This research also provides a guideline approved by Maricopa County for creating a successful Request for Proposal (RFP) for future partnerships.

When creating RFPs for the City of Apache Junction Off-Leash Dog Park PPP, specific items need to be ensured from the applicants. To be successful with the creation of an off-leash dog park, the American Kennel Club recommends the following items be included: one or more acre, four to six-foot fence, cleaning supplies, waste bags, shade, water, adequate drainage, and grass (American Kennel Club, n.d.). In addition to the RFP, procurement of and funding for these items will be included into a Community Benefit and Needs Assessment survey provided to businesses in this research to provide interested companies with all information needed.

The City of Apache Junction has a renewed focus on a rebranding of their image. “Off-Leash Dog Parks show a visible change in a city” (Hui, 2017). “The reflect shifting lifestyle and demographics, as wells at the restructuring of the urban environment” (Hui, 2017). Drawing from the Town Hall notes from constituents, creating an off-leash dog park permits the city to highlight its commitment to its citizens, its economy and future (Apache Junction Town Hall, 2017). Proponents of public-private partnerships highlight the cost savings as the greatest benefit to a municipality. “Governments have a lot of money, but they tend to spend a lot of it on very expensive labor arrangements. Bringing in a private manager allows a return to closer-to-market arrangements, as well as more streamlined contracting and RFP processes” (“Parks and Re-Creation, 2012”). The City of Apache Junction can explore this process while remaining budget conscious and fiscally responsible.

Methods

This research will provide answers to the following questions:

- Q1: Would a public-private partnership to form a multi-use venue to include an off-leash dog park benefits the City of Apache Junction?
- Q2: Is there any interest within current businesses/organizations for said partnership?
- Q3: Which model would be of more benefit to the City: Public and for-profit combination or Public and non-profit combination

Overall, this research believes there will be a substantial interest for public-private partnerships in the off-leash dog park, but a possible hesitation for creation of a new location due

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to financial concerns or business differences. (E.g. Would a construction site benefit being so close to an off-leash dog park, or are there safety concerns for the company that outweigh the possible benefits?). Specific hypothesis' are stated below:

H1: If an organization showed interest, then the organization would expect the city to provide additional resources to assist in the creation and upkeep of the multi-use venue.

H2: If an organization had strong ties with the community of Apache Junction, then they would be interested in forming a partnership and taking on additional responsibilities for the multi-use venue

H3: If an organization is a for-profit organization, then it would be more successful and provided a better chance for financial success with a public-private partnership.

This research will utilize a mixed-method plan to provide the most accurate information. This research will use quantitative methods in the survey included in this paper, to explore community assessment, financial costs, and financial options of local or corporate business opportunities.

This research will also utilize qualitative methods, such as interviews, to further investigate business/organization leaders interviews and provide suggested options for implementation to city officials based on provided answers and interviews.

To obtain the answers to the research questions above, multiple methods will be employed. Focusing first on the opportunities in the community itself, a needs and benefits assessment will be distributed to nonprofit and for-profit organizations. The following organizations in the City of Apache Junction will be approached:

Organization Name	Business	Contact Information
Chicago's #1 Gyros	For Profit Restaurant	850 S. Ironwood Drive, Suite #124 Apache Junction, AZ 85120
Lucky Strikes Bar & Grill	For Profit Restaurant	1985 W. Apache Trail, Suite #2-3 Apache Junction, AZ 85120 (480) 982-0753
Mickey D's Cafe	For Profit Restaurants	1408 W. Apache Trail Apache Junction, AZ 85120 (480) 671-5755
Caring Critters Animal Hospital	For Profit – Healthcare: Animals	189 W. Apache Trail, Suite #A-108 Apache Junction, AZ 85120 (480) 671-7387
VCA Apache Junction Animal Hospital	For Profit – Healthcare: Animals	17 N. Mountain Road Apache Junction, AZ 85120
Stop-N-Shop Military Surplus	For Profit – Retail	300 W. Apache Trail, Suite #124 Apache Junction, AZ 85120 (480) 984-9051

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Kauffman Homes	For Profit: Construction	Jacobs Ranch Apache Junction, AZ 85119 (480) 816-6155
Hope's Boarding Camp & Doggie Daycare	For Profit – Assistance: Animals	460 S. Colt Road Apache Junction, AZ 85119 (480) 288-2959
Horizon Health & Wellness	For Profit: Assistance: Health and Wellness	625 N. Plaza Drive Apache Junction, AZ 85120 (480) 983-0065
NextCare Urgent Care	For Profit: Healthcare	2080 W. Southern Avenue, Suite #A1 Apache Junction, AZ 85120 480-985-0172
Banner Baywood Medical Center	Non-profit: Healthcare	2050 W. Southern Avenue Apache Junction, AZ 85120 (480) 412-3218
American Legion Apache Post 27	Non- Profit: Veteran & Military Organization	1018 S. Meridian Road Apache Junction, AZ 85120 (480) 354-2571
Apache Junction Food Bank	Non- profit	575 N. Idaho Road, Suite #107 Apache Junction, AZ 85119 (480) 983-2995
Apache Junction Lions Club	Non- profit	Apache Junction, AZ 85119 (480) 983-5278
Boys & Girls Clubs of the East Valley - SM Branch	Non-profit	1755 N. Idaho Road Apache Junction, AZ 85119 (480) 982-6381
Central AZ Council Developmental Disabilities	Non-profit	3690 S. Cactus Road Apache Junction, AZ 85119 (480) 982-5015
Hope Women's Center	Non-profit	252 N. Ironwood Apache Junction, AZ 85120 (480) 983-4673
Superstition Mountain Rotary Club	Non-profit	PO Box 565 Apache Junction, AZ 85117 (480) 625-1480
Superstition Search & Rescue	Non-profit	PO Box 1123 Apache Junction, AZ 85119 (480) 250-9600
Lost Dutchman Marathon Inc	Non-profit	P.O. Box 6417 Apache Junction, AZ 85278 (480) 983-1500
AJ Mounted Rangers	Non-profit	P.O. Box 699 Apache Junction, AZ 85117 (602) 980-0629

*source: Apache Junction Chamber of Commerce

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The above list was cultivated from the Apache Junction Chamber of Commerce. All organizations on the above list are current members of the chamber. This list was generated based on City of Apache Junction Economic & Business Development Division's Community Profile (Solley, 2017). The top three industries in the City of Apache Junction are the following: Retail/Accommodation/Food Services; Healthcare/Social Assistance; Construction (Solley, 2017). Researching those categories and non-profit services as well, a sample of organizations were randomly sampled. It is important to note that the City is searching to expand economic development opportunities in the following categories: Advanced Business Service; Manufacturing & Distribution; Biomedical and Personalized Medicine (Solley, 2017). These mentioned categories are not currently present in the Chamber of Commerce business roster, so they were removed from analysis.

A Needs and Benefits Assessment (included below) will be distributed to local businesses via email and/or mail. This survey will provide both qualitative and quantitative data to gauge several factors including: interest; current business model comparison to city mission statement and values; financial standings; employment levels to gauge if the city would need to hire additional workers for the completion and upkeep of the project; and possible concerns. Organizations that respond positively will be contacted for an interview to further discuss possible partnership.

There are many possible positive outcomes of this survey. First, the information will come directly from the organizational leadership. Information is anticipated to be honest, reliable, and valid. This will be examined against public information of each organization. Second, these organization leaders could provide additional insight as a business leader as to what makes a successful model based on their experience. Finally, the business' interest can generate additional publicity within the community for the need and desire of an off-leash dog park within a mixed-use venue.

The most serious negative outcome is no data provided. This outcome would be a signal that a mixed-use venue would not be successful or efficient for the city. Additionally, there is the major concern of measuring sincerity. How can we be certain that a business will maintain its eagerness or interest in the future? It befits City officials to accept the findings once this report is concluded and move quickly to work with interested parties. Additionally, based on the

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organizations that are in consideration, it would benefit city officials to see what needs can be met, and determine what are unacceptable answers.

Findings

This researcher decided to pursue a mixed-methods approach to provide both qualitative and quantitative findings. These findings would provide City officials with opportunities for dialogue for both financial and community development concerns or ideas with the organization leaders. Due to time constraints, reaching out via mail not pursued. Reaching out via email allows the organization to determine the timeframe in which to respond and provide meaningful answers. Several organizations did not have email address available to the Chamber of Commerce, so those organizations were contacted via phone with the request to provide that information.

At the completion of this research assignment, zero organizations have completed the mixed-method survey included in this paper. One organization declined to participate. Several others have stated that their leadership would consider providing information. City officials were consulted and assisted with outreach as well. Admittedly, these results were not expected by this researcher, although considered as stated above in worst possible outcomes. It was anticipated that after city officials became involved there would be more of an interest to participate.

Analyzing Results and Research Questions

As stated in the above literature, this is a positive idea that threads the needle for Apache Junction's mission to increase community. Hypothesis one (H1) assumed that if an organization showed any interested, then the city would be expected to assist in providing resources. While this would still result in a cost to the city, the greater financial burden would fall initially on the organization. With less out of pocket costs and overall responsibility but increasing community engagement and development, a partnership would have resulted as a benefit. This hypothesis is rejected as the city would provide all funding and responsibility with no partnership created.

Hypothesis two (H2) assumed that businesses/organizations that are either based in Apache Junction or have a strong tie to the community would be stronger candidates. Based on these initial findings, no interest in these current businesses/organizations for a public-private

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partnership. Should this research continue, contact should be made to a larger number of organization and a larger scope of businesses should be considered. Hypothesis two is rejected.

Hypothesis three (H3) believed that a public and for – profit combination would be a larger benefit to the city as a for – profit organization would be able to provide more financial standings and security. In the partnership, there could have been proposed a variety of options for financial support. The city could have allowed the building of the venue at the expense of the organization. Once the venue was complete, the city could have been responsible for incidentals, utilities, or provided city employees to maintain the grounds; creating more jobs for the city. Hypothesis three is rejected.

Quantitative and Qualitative Research Analysis

Further investigation of the quantitative and qualitative findings based on the outcome and the methodology of communication follows. Statistically, this current research proves a 0% interest in a public-private partnership for Apache Junction business/organization with the City for a creation of a multi-use venue and off-leash dog park. For businesses and organizations, it can be stated that a multi-use venue and off-leash dog park is not a priority for the sample selected.

Diving further into the qualitative analysis, this research shows a rather negative outlook on partnerships for a multi-use venue and off-leash dog park. Many comments provided to the researcher were short and unreceptive. Several times the researcher was told to reach back out at a different time that was better for the organization only to have no response. One organization provided the researcher with a false email address. One organization asked to be removed from this and future considerations from the city and University. One organization was agitated that the researcher contacted him on the phone number listed, as it was his private phone number. Several lower level employees stated that they did not think the leadership would provide any information.

Recommendations

Future Research

While these interactions were disheartening, they should not be the final conversation on a public – private partnership. In other cities, as stated in initial literature review, public-private partnerships are fruitful and can serve as a guideline for Apache Junction. Future considerations

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should communicate with large scale organizations. In the current sample, the largest business is estimated to be Banner Baywood Center, although not confirmed. Reaching out to large scale business, such as major retailers or grocery stores should warrant a response from a community outreach employee. Basha's Supermarkets would be a great initial contact as Basha's was created and is headquartered in Arizona. Increasing the sample outside of Apache Junction borders should increase the interest in a partnership, while including the local Arizona identity. Utilizing additional business resources, such as Arizona Commerce Authority or Local First AZ should gather a larger sample of businesses that have an interest and the means to participate. Finally, this researcher suggests reaching out to corporations that have a focus on animals solely. Companies such as Petco or PetSmart would serve a final opportunity for a partnership, although they do not have a presence as an Arizona business.

Upon reflection of this research, there are several items that should be addressed that could have led to the failure to accept the hypothesis. Most significantly, the organizations selected in the sample showed little to no interest in communicating with someone not affiliated with the City of Apache Junction. Should this needs and benefits survey been presented as an official survey from a city official, it is anticipated there would have been a better result. The next iteration of surveys and samples selected should be consulted with City of Apache Junction officials prior to outreach to organizations. The decision was made to randomly select organizations based on several factors mentioned in the methods section to gather unbiased information. However, it was later discovered that city officials' knowledge of the size, scope, and missions of the organizations could have helped guarantee a better response rate. City officials could have also assisted with the formation of the survey questions as well. The survey that was distributed language that could have been misperceived. Through this timeframe, it was discovered that several questions in the needs and benefits survey could have be restructured with more specific information not available to this researcher. Redefining this initial process with the assistance of the city officials could better align the city goals and the outcome desired. The decision to separate the survey and sample was in formed to provide the unbiased or favored organizations and/or questions provided a negative response.

This research found through conversation that some of the information from the Chamber of Commerce was outdated, resulting in additional steps having to be taken and adjusting in some circumstances from email to phone calls. Both emails and phone conversations provided

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successes and opportunities for improvement. Email correspondence allows the organization the time to provide meaningful answers and provide the researcher with full written information, so no information is lost or not correctly notated. However, emails can easily get lost in the shuffle. Larger organizations are anticipated to have many employees that can be communicated to and this research found in many circumstances the provided email address might not be the person who would be able to provide the best information. Phone conversations provide the immediate opportunity for conversation should the organization be reached. As with emails, voicemails can be returned at the earliest convenience of the organization, which has proven not to fit within this time frame. Timing of phone calls is crucial as well. Calling during store hours for volunteer assistance could prove to be not at the best interest of the organization. Employees could be assisting paying customers, providing a service to one in need, or working on a larger project. Thus, creating a cycle where the information continues to go unanswered. Future research could also involve travelling to each location, should that method be approved. Finally, there is also the notation of researcher naiveté in selecting a small sample. Several filters were put onto the business and organizations selected to provide the best matched organization to the city. With these filters, a smaller sample was generated, providing a greater opportunity for skewed results should less businesses respond.

Alternative Location and Funding Suggestions

The purpose of this study was to provide city officials with funding sources and best business partnership options for the creation of a much desired off-leash dog park. Combining the economic growth with community development to build a multi-use venue would have created an opportunity that should not be overlooked. The creation of a new multi-use venue at either Silly Mountain Park or Prospector Park would have possibly started a new wave of economic growth in those less populated areas. The City currently operates a multi-generational center located at 1035 North Idaho Road. This center includes a fitness center, class and meeting rooms, and game room. It is located within walking distance to City Hall, a public library and a senior center and currently has a large area located to the direct east of the center. It is suggested that an environmental survey be conducted by city officials to see if this area could be ultimately and safely transformed into an off-leash dog.

This venue is in a more populated area of the city, significantly increase the amount of visibility. The city could use this as means to help boost participation at community events and

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town hall attendance. The city could also sponsor classes with a focus on outdoor activity or animal care at their multi-generational center or senior center to increase community engagement. Additionally, with multiple buildings within the proposed vicinity, there is more likely a chance that utilities (power lines, water lines, gas lines) are already present or could be added with limited issue. Supplementary items will be needed to be added to meet the American Kennel Club standards of a proper dog park as well as community needs, including water fountains, waste receptacles, shading and cooling areas, benches, and a four to six-foot fence (American Kennel Club, n.d.). Incorporating current landmarks in the area (trees, bushes, plants, small hills and valleys) could provide a unique space for a large dog/small dog area, provided they are safe for the animals. Due to the scope of this project, the city could consider a municipal bond for a capital improvement project of updating the multi-generational center and creating an off – leash dog park.

Additionally, a public – private partnership could be formed through volunteer means as a way of funding. In Lynchburg Virginia, a group of dedicated residents formed a partnership with the Lynchburg Department of Parks & Recreation. This group, named Friends of Lynchburg Dog Park, maintains the dog park through volunteer hours. Construction, services, and upkeep are paid for through tax – deductible donations and fundraising (Lynchburg Dog Park, n.d.). The off-leash dog park is located within a park operating by the city and all dogs who utilize the park must be licensed. The city of Apache Junction could partner with a local animal shelter, veterinary office, or group of engaged citizens create a group and use this citizen focused formula. This method could mitigate costs on a short – term basis should a municipal bond be determined to be unwanted.

Conclusion

This research was formulated to find solutions for funding a city sponsored off – leash dog park. Creating an off-leash dog park would be able to fulfill the desire for an off -leash dog park in the city while providing opportunities for business growth. Though a partnership would help with the costs, it was expected that businesses would not want to take a large financial stake without a reciprocal benefit. A multi-use venue would allow an organization to grow its business or organization's visibility within the city while accepting a larger stake of financial responsibility. The city's sureness in partnering with a business or organization on this level of

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venture would also generate positive opinions. Overall confidence in creating a partnership with a local organization diminished after this research was analyzed. Possible future research should continue to monitor several factors: growth rate of new residents to the area, growth rate of animal adoption and registration, and discussion with residents regarding this issue. Should the attention to this matter grow significantly, the above recommendations for furtherance of this research should be carried out on behalf of the City of Apache Junction.

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Appendix A Community Needs Assessment Outreach and Survey

Preamble:

Hello! I am a graduate student at Arizona State University. I am currently directing my capstone project in conjunction with the City of Apache Junction. The goal of the project is to conduct a needs assessment for local businesses interested in forming a public-private partnership for a mixed-use venue including an off-leash dog park. This research will provide City officials with useful information to pursue a new avenue to achieve the goal of a city sponsored off-leash dog park.

I would like to provide you with an assessment survey based on your company success. Post survey, I would like to possibly follow up with a phone call to further discuss your answers. All information would become property of the City of Apache Junction for future review.

Please reach out should you have any questions or concerns. Please provide response answers by Tuesday, October 31, 2017.

Thank you!

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Community Needs Assessment Questions for Apache Junction Organizations

Non-profit or for profit:

- Non-profit
- Profit

- 125,000,001-1,500,000
- 1,500,001-2,000,000
- More than 2,000,000

Length of Time in Business (years):

- 0-5
- 6-10
- 11-15
- 16-20
- 21-25
- 25+

Over the last year sales have:

- Increased rapidly
- Increased slowly
- Stayed neutral
- Decreased slowly
- Decreased rapidly
- No change

Employees/ Volunteers:

- 0-50
- 51-100
- 101-150
- 151-200
- 201-250
- 251-300
- 301-350
- 351+

Over the last year, our company has:

- Hired up to 25% new employees
- Hired between 26-50% new employees
- Hired more than 50% new employees
- Let go up to 25% new employees
- Let go between 26-50% new employees
- Let go more than 50% new employees
- No changes in employment

Type of business:

- Retail
- Goods/services
- Hospitality
- Government
- Education
- Administration
- Other: _____

Is your current location an animal friendly environment?

- Yes
- No
- In discussion

Yearly Annual Revenue:

- 0-250,000
- 250,001-500,000
- 500,001-750,000
- 750,001-1,000,000
- 1,000,001-1,250,000

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Please state your organization's mission statement:

--

Would your business thrive in a park environment? Does your business require any specialized location needs? Please provide specifics:

--

Does your business have any additional partnership with the city outside of normal city-business partnership (i.e., permit, licensing, etc.)?

--

Would your business commit to inspections to maintain upkeep of location?

--

What challenges could your business face if it opened a location in a city park?

--

What successes could your business face if it opened a location in a city park?

--

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What skills, training, or education do you and/or your business partners possess that would be an asset to this position?

--

City parks hours are estimated to be between sunrise and sunset. Would your business thrive or suffer with these hours listed?

--

City parks face additional challenges including but limited to the following: homelessness, illegal activities, after hours visitors, animals, garbage, etc. Will you be able to provide leadership in facing and changing these challenges?

--

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Appendix B Matrix of Finding from Business Communications

Chicago's #1 Gyros	Contact made via phone call, message left Contact made via phone call, declined to participate	Comment made that business is not interest and has turned down students in the past.
Lucky Strikes Bar & Grill	Contact made via phone call, voicemail full, Contact made via phone call, was provided false email	Comment made that organization didn't want to get involved, but was provided an email, that proved to be false
Mickey D's Cafe	Contact made via phone call, asked to call back later. no response Contact made via phone call, asked to call back	Was told to call back after 2pm, store closes at 1 pm
Caring Critters Animal Hospital	Contact made via email, no response Contact made via phone, provided same email address, awaiting response	Receptionist commented than idea sounded interesting and she would pass the information along to her supervisors.
VCA Apache Junction Animal Hospital	Contact made via email and website out response, Contact made via phone call, provided additional email address, awaiting on response	
Stop-N-Shop Military Surplus	Contact made via phone call, message left, no response Contact made via phone call, provided email address, awaiting response	
Kauffman Homes	Contact made via phone, message left, no response Contact made again via phone call, message left Contact responded with email address Email sent, awaiting response	
Hope's Boarding Camp & Doggie Daycare	Contact made via email, no response Contact made via phone call, message left, no response Contact made via phone call, provided same email, awaiting response	Comment made that email was received, but there were some computer issues and email was lost
Horizon Health & Wellness	Contact made via email, no response Contact made via phone call, transferred to voicemail for director, message left, no response	
NextCare Urgent Care	Contact made via email and website outreach, Contact made via phone call, message left with receptionist, awaiting response	
Banner Baywood Medical Center	Contact made via email and website outreach, no response. Contact made via phone call, and transferred to supervisor, no response	no message left due to request for only emergencies to be recorded
American Legion Apache Post 27	Contact made via email, no response Contact made via phone call, was provided with same email address, awaiting response.	Person I spoke with (who withheld name) commented that business leaders probably not interested in participating
Apache Junction Food Bank	Contact made via email, declined to participate. Comment made that Food Bank focuses solely on food related items, and a multi-use venue with off- leash dog park not within jurisdiction of organization	
Apache Junction Lions Club	Contact made via phone call, message left, no response Additional contact made via phone call, message left, no response	Left message on personal line. Uncertain if number listed was the official number for organization.
Boys & Girls Clubs of the East Valley - SM Branch	Contact made via email, no response Contact made via phone call, was provided with additional email address, awaiting response.	Email provided for person in position overseeing all of Arizona, not specifically the Apache Junction branch

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Central AZ Council Developmental Disabilities	Contact made via email, no response Contact made via phone call, was transferred to voicemail for director, left message, awaiting response	
Hope Women's Center	Contact made via email, no response Contact made via phone call, was provided with executive director's email, awaiting response	Comment made that since organization was non-profit, there would probably be little interest
Superstition Mountain Rotary Club	Contact made via email and website outreach, no response Contact made via phone call, left voicemail, no response	
Superstition Search & Rescue	Contact made via email, no response. Contact made via phone call, provided additional email, awaiting response	Comment made that the organization was already very involved in the community, and probably would not want to partner
Lost Dutchman Marathon Inc	Contact made via email and website outreach, no response Contact made via phone call, message left, no response	Organization accepting applicants for marathon and experiencing larger amount of phone calls
AJ Mounted Rangers	Contact made via email and website outreach, no response Contact made via phone call, message left, no response	Left voicemail on personal line, uncertain if number listed was the correct line

PRESENTATION SLIDES AND NOTES FROM FALL 2017 SHOWCASE

View the whole presentation at <https://vimeo.com/247880043>

OFF-LEASH DOG PARK

OVERVIEW OF SEVEN STUDENT CAPSTONE PROJECTS



COMPOSITION OF THE GROUP

- Seven capstone students
- Three are local and four live outside the metro area (one in Maine)
- Two of the locals met with Liz and toured the potential sites

SAMPLE RESEARCH QUESTIONS

- Is there any interest in the city business community for a public-private partnership?
- What are the main advantages and disadvantages of constructing an off-leash dog park in the city of Apache Junction?
- How have other comparable cities raised funds to finance the construction and maintenance of an off-leash dog park?
- What are the sources of funding in four nearby cities?
- Does the proximity to an off-leash dog park increase exercise in dog owners?

STUDENTS' RESEARCH METHODS

- Cost-Benefit Analysis
- SWOT Analysis
- Survey of dog owners in the City of Apache Junction
- Interviews with city officials in neighboring cities

SAMPLE OF KEY FINDINGS

- Local dog owners most wanted a park with adequate water and shade
- Local dog owners also wanted a well-maintained park
- Local dog owners would be willing to pay a modest annual fee
- The City of Phoenix has successfully used the Mini-Grant program is to assist the development of small projects

SAMPLE RECOMMENDATIONS

- Size should be a minimum ½ acre for large-breed dogs
- Size should be a minimum of ¼ acre for smaller-breed dogs
- Businesses like PetSmart, who funds a park in Phoenix, could be a source of funding
- According to the study and literature review, a dog training station is popular and functional for a dog park
- The City should utilize qualitative feedback by placing it on the agenda of a city council meeting, advertise on social media, and open a phone line for residents to call in to provide opinion

AN ANALYSIS AND RECOMMENDATION

TO CREATE AN OFF-LEASH DOG PARK IN
THE CITY OF APACHE JUNCTION, ARIZONA

Katherine A. Brewer
Arizona State University

GOALS & OBJECTIVES

1. What are the necessary features and key elements of a successful community off-leash dog park?
2. How did other Arizona cities locate the resources to build their off-leash facilities?
3. How can Apache Junction apply different fundraising strategies to raise the resources to construct its own dog park?

First, we need to outline the research questions we're trying to answer. One, what kind of features does a successful off-leash dog park have? Two, what kind of resources did other AZ cities use to build their dog parks? Three, how can Apache Junction apply different strategies to fundraise for its own dog park?

GOALS & OBJECTIVES

Objectives

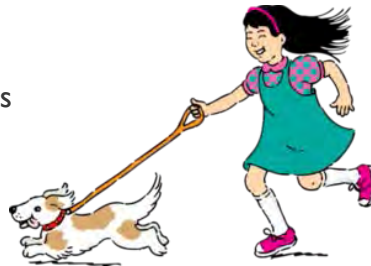
- Conduct a comparative analysis of successful dog parks throughout Arizona cities near Apache Junction
- Propose a formal recommendation of how a cost-effective off-leash facility can be built in Apache Junction

To answer these research questions, we need to establish objectives. There are multiple ways to answer these questions, but for the purpose of this project, let's focus on comparative analysis. By conducting a comparative analysis, then we can ultimately propose a formal recommendation to Apache Junction on how to build its own off-leash facility.

GOALS & OBJECTIVES

Literature Review

1. History of off-leash dog facilities
2. Health & social benefits
3. Barriers & risks



To meet these objectives, let's look at some background information about dog parks. A literature review was conducted to learn about the history of off-leash facilities, health and social benefits for communities that have dog parks, and barriers to constructing dog parks are important factors to consider.

METHODS

City	Dog Park
Gilbert	Cosmo Dog Park
	Crossroads Park
Mesa	Countryside Park
	Quail Run Park
Chandler	Nozomi Park
	Shawnee Park

Table 1: Dog parks selected for comparative analysis and benchmarking.

Originally, eight dog parks were selected from four cities within a 30-mile radius from Apache Junction. Tempe, Gilbert, Mesa, and Chandler were the selected cities – however, due to timeliness issues, the number of dog parks was narrowed down to six. The dog parks selected for comparative analysis are listed here.

METHODS

- 30 minutes of field observation at each dog park = 3 hours
- Matrix detailing park size, amenities, and other relevant information (Lee, Shepley, & Huang, 2009)
- Informal email communications with city Parks & Recreation officials

I spent 30 minutes at each dog park, marking a total of three hours of field observation. While at each dog park, I recorded details about the parks based on a descriptive matrix designed by Lee, Shepley, and Huang (2009) that described different aspects and amenities of each park. The final component required emailing Parks and Recreation officials from each city to learn about when the parks opened, how big they are, and how much it cost to build each one.

FINDINGS

Cosmo Dog Park (Gilbert)

- Opened in 2007
- 2 acres
- 4 separately fenced areas
- Has over 600,000 visitors each year (Town of Gilbert, 2017)



Located adjacently to a residential neighborhood and a shopping center, Cosmo Dog Park opened in 2007 within Cosmo Park, a 17-acre facility named after the city's first police canine officer, Cosmo. Notably, the two-acre park comprises of four separately fenced areas with access to a lake, as well as a doggie shower and kiddie pool. This park is one of Gilbert's most popular parks, seeing at least 600,000 visits a year from humans and dogs alike (City of Gilbert, 2017). The dog park also operates as a space for advertisements for dog services, such as local veterinarians, dog walkers, and grooming services, while also advertising for city-wide events.

FINDINGS

Crossroads Dog Park (Gilbert)

- Opened in 1996
- 1 acre
- 2 separately fenced areas
- Information hub about dog services & community events



Crossroads Dog Park, a one-acre facility that opened in 1996, is the oldest dog park that was selected for field observation. This off-leash facility resides within Crossroads Park, a 92-acre public space located within a five-minute drive of Cosmo. The dog park is comprised of two separately fenced areas for active and timid dogs, with the active dog area being significantly larger than the timid dog area (see Appendix C, Picture 3). Like Cosmo, dog owners can find information about various dog services available in the community here, along with advertisements for community events.

FINDINGS

Countryside Dog Park (Mesa)

- Opened in 2010
- 1.2 acres
- 2 separately fenced areas
- “Doggie Do’s and Doggie Don’ts” (City of Mesa, 2010)



The “newest” dog park selected for field observation, Countryside Dog Park, was constructed in 2010 within Countryside Park, a multiuse 28-acre public park in a residential neighborhood. The park, along with displaying park regulations, also displays benefits of having an off-leash facility within the community. An active dog area and a timid dog area are available for use, with the timid dog area being much smaller in size than the active dog area. Countryside was opened as part of a dog safety campaign launched by the city titled “Doggie Do’s and Doggie Don’ts”, sharing advice for pet owners to enjoy Mesa parks (City of Mesa, 2010).

FINDINGS

Quail Run Dog Park (Mesa)

- Opened in 2001
- 1.5 acres
- 2 separately fenced areas
- Built as part of the city’s park masterplan



Opened in 2001, Quail Run Dog Park is a one-and-a-half-acre park situated within the larger 40-acre Quail Run Park, located near commercial developments. This park was built as a key deliverable in the city’s general park masterplan and offers two separately fenced areas for active and timid dogs. Similar to Countryside, Quail Run also displays signage at the entrance to the dog park describing the benefits of dog parks within the community.

FINDINGS

Nozomi Dog Park (Chandler)

- Opened in 2004
- 0.83 acres
- 2 separately fenced areas, one for agility training
- Occasionally used for obedience & police K-9 training (City of Chandler, 2017a)



Nozomi Dog Park is sized at less than an acre and opened to the public in 2004. As a part of the Nozomi Park, this dog park is the smallest of the dog parks selected for field observation. Signs posted at the entrance offer information about the city of Chandler's other dog parks, such as their locations and hours of operation. This dog park offers an area for agility training, complete with agility obstacles and structures; it is considerably smaller than the active dog area. The dog park is occasionally reserved for dog obedience classes and police K-9 training (City of Chandler, 2017a).

FINDINGS

Shawnee Dog Park (Chandler)

- Opened in 2000
- 2.21 acres
- 2 separately fenced areas, one for agility training
- Dog Waste Stations & Plastic Bag Recycling Program (City of Chandler, 2017b)



Shawnee Dog Park, which opened in 2000, is the largest dog park selected for field observation at over two acres. It is located within a residential neighborhood and is part of the larger Shawnee Park. Like Nozomi, Shawnee offers two separately fenced areas for active dogs and agility training. The agility training area is situated directly in the center of the dog park, complete with agility structures. The dog park, along with Nozomi, is also a part of the city's Dog Waste Stations & Plastic Bag Recycling Program, an award-winning initiative that asks dog owners who frequent Chandler's dog parks to bring plastic bags that would otherwise be thrown away and use them to dispose of dog waste (City of Chandler, 2017b).

FINDINGS

- Double-gate system for entry/exit
- Chain-link perimeter fences
- Lighting
- Water sources
- Dog waste materials and receptacles
- Regulations & rules about appropriate park behavior

There were multiple similarities between all six dog parks. Each park utilizes the double-gate system, which requires one gate to be closed at all times to prevent dogs from escaping the parks. All parks use chain-link fences around their perimeters (the heights of which are at least over five inches tall), and have easily accessible parking lots nearby. Each park is lit at night for those owners who enjoy taking their dogs out in the evening, which can be a popular time to visit during Arizona summers when there are cooler temperatures. A water source is present within each park, along with dog waste materials and receptacles to dispose of the waste. Lastly, every park posts regulations and rules detailing appropriate behavior within the dog park for both dogs and their owners in accordance with municipal policy.

FINDINGS

- Popularity differences among dog parks



It was clear from the outset that most of the dog parks selected were quite popular destinations for dog owners. Cosmo was the most highly frequented dog park of the six, with at least 25 dogs within the park's fenced areas at one time. A couple of dog owners mentioned that they had traveled from a different city just to visit Cosmo, with one owner remarking that she had driven at least 40 minutes. On the other hand, Crossroads, the other selected park from Gilbert, seemed to be the least popular dog park of the six, as there was only one dog present in the park at the time of observation. The other dog parks in Mesa and Chandler saw between seven and ten dogs within each park during Var observation. Most of the dogs were observed to be in the active dog areas, while a small number of dogs were sometimes found in the timid dog areas.

FINDINGS

- Varied water resources for hydration and playing



Each of the dog parks offered a highly used water resource for drinking, while a few offered additional water resources for playing purposes. The most popular example was the double-use water fountain, which allowed both dogs and their owners to drink from the fountain; this was found in each park. Countryside, Nozomi, and Shawnee went beyond that and placed bowls of water throughout the park, spacing them to give the dogs room to run between them. It was not uncommon to see a dog chasing another dog, only to stop midway near a water bowl to take a quick drink, and then continue on its chase. The water fountains were stationed near the entrances to the dog parks, so dogs did not tend to use the fountains as frequently as the bowls. Nozomi and Shawnee also provided a kiddie pool in their active dog areas, filled with water for dogs to take a quick bath in to cool off and located near the water fountains. Cosmo also offered a kiddie pool for dogs to use in one of their active areas, but also gave dogs access to a doggie shower and a lake and dog beach for dogs that enjoyed swimming. According to dog owners at Cosmo, the summertime sees many dogs taking advantage of the lake and an opportunity to stay cool in the dry Arizona heat.

FINDINGS

■ Fundraising strategies

1. Capital improvement plan (Cosmo)
2. Budgeted for as part of park masterplan (Countryside, Quail Run)
3. Park bond funds (Nozomi, Shawnee)

Three fundraising strategies were used to construct the dog parks, with the exception of Crossroads because the information is unavailable. The town of Gilbert utilized funds devoted to constructing Cosmo as part of a capital improvement plan. Therefore, the costs associated with constructing Cosmo were already planned for, and included looking at cost estimates of operating over a five-year period. Countryside in Mesa initially had private support that was eventually withdrawn, but was then able to move forward in construction when public funding became available due to cost savings and delays in other projects. Costs allocated to build Countryside amounted to about \$30,000. Quail Run, also in Mesa, was included in Mesa's general park masterplan, so there was no specific separation of costs associated with development and construction. Nozomi and Shawnee, both in Chandler, utilized park bond funds.

RECOMMENDATIONS

1. At least one acre
2. Near a residential area, or an extension of a community park
3. Perimeter of the park = at least five feet high
4. Double-gated entrance/exit
5. At least one area for active dogs and one area for timid dogs

A successful dog park will have numerous features and amenities that are both necessary and satisfactory to both dogs and their owners. The park should be at least one acre in size and preferably near a residential area, or be an extension of a community park. The proposals put forth that would place a dog park at Silly Mountain Park or Prospector Park are good options, but expensive ones because both of these proposed parks are at least four acres in size, which increases costs exponentially. The option to build across the street from City Hall, though much less expensive, is still expensive. Costs would be minimized by a smaller park, which would mean a smaller perimeter. The perimeter of the park should be at least five feet high, and there should be a double-gated entrance to the park to prevent dogs from escaping. At least one area for active dogs and one area for timid dogs must be included.

RECOMMENDATIONS

- | | |
|---|---|
| 1. Notice of assumed risk for owners | 5. Age minimum for dogs & children |
| 2. Assumed responsibility of dogs | 6. Food, alcohol, and beverage restrictions |
| 3. Licensure, vaccination, visible tag requirements | 7. Aggressive behavior restrictions for dogs |
| 4. Recommendations for dogs to be spayed/neutered | 8. Requirements that owners clean up after their dogs |



The park must also post regulations that determine appropriate behavior for both dogs and their owners within the park.

RECOMMENDATIONS

1. Water fountain
2. Waste receptacles
3. Some form of shading & seating



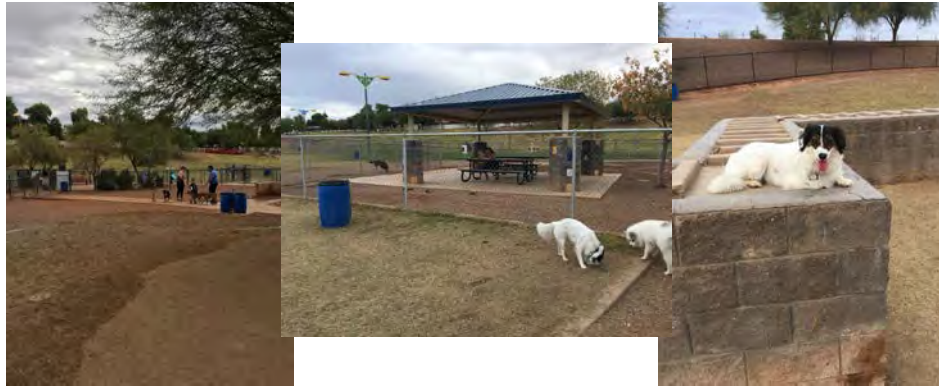
Other key features that should be included are a water fountain for owners and dogs, or another applicable water source for drinking and potentially bathing (should funding allow for the latter). Some form of waste receptacles should be spread throughout the dog park for cleanliness and health purposes. Due to Arizona weather, some shading and seating should be readily available for dogs and their owners, such as trees, a ramada, picnic tables, or benches.

RECOMMENDATIONS

1. Consider cost-saving actions on other projects
2. Fundraising plan using bonds
3. Involve the community with minor fundraising initiatives

Because the problem with building a dog park in Apache Junction is the lack of funding available, the city should consider looking inward to determine if there are cost savings on other projects that could be allocated to building a dog park. As noted above, Countryside in Mesa was built for around \$30,000 as a result of cost savings and project delays; however, these funds were not separated out from the overall park project. Costs of land, light, turf, irrigation, and other infrastructural necessities were budgeted for. It may also be worth structuring a fundraising plan using bonds to construct a dog park in Apache Junction. Since the city's Parks and Recreation department budget is partially sustained by bonds, this could be a viable source of funding. It could also be beneficial to look to the community to assist with more minor fundraising initiatives. Similar to how Chandler's dog parks participate in the city's Dog Waste Stations & Plastic Bag Recycling Program, citizens could feel compelled to taking a frontline interest in seeing the dog park come to fruition by assisting with its maintenance and saving costs. The city could also ask for donations for material items, such as water bowls and possibly a kiddie pool, trash cans, and seating rather than purchasing these items upfront. Partnerships with local animal services could be beneficial as well – as noted, some of the dog parks mentioned in this analysis were hubs of information for available dog services. If the city charges a regular fee for advertisements, this creates a stream of revenue while cementing community partnerships and shortening the gap between communities.

RECOMMENDATIONS



Based on observations and research, an off-leash dog park structured similar to Cosmo Dog Park is most recommended due to its size, amenities, water resources, and popularity throughout the community and beyond.

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