

# PROJECT CITIES REPORTS: SPRING 2018

THREE COLLABORATIVE REPORTS BY  
ARIZONA STATE UNIVERSITY'S PROJECT CITIES  
FOR THE CITY OF APACHE JUNCTION



**POSITIVELY APACHE JUNCTION**

**PLANNING A SUSTAINABLE FUTURE**

**FINDING NEW REVENUE SOURCES**

*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 Student reports are not peer reviewed for statistical or computational accuracy, or comprehensively fact-checked, in the same fashion as academic journal articles.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.*



# City of Apache Junction

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Dear Apache Junction residents, community members, and report readers,

Once again, ASU has exceeded our expectations with four Spring Semester 2018 projects through ASU's Project Cities program. As the inaugural community partner for the program, we could not be more pleased with the relationship the city has developed with the students, professors, instructors, and Project Cities staff. This semester we were fortunate to have the opportunity to work with over 70 students on four projects that engaged five university professors and classes. The students and professors brought fresh perspectives and unique approaches to their work.

On behalf of the City Council, we can say that they are impressed with the relevant project work, and we are sure that it will help make Apache Junction a place people love to call home.

Four projects were undertaken in the Spring semester of 2018 (Positively AJ continued, Planning a Sustainable Future, Transitioning Mobile Home/RV Parks, and Exploring New Revenue Sources), and all have the potential to strengthen the community and prepare it for the next 40 years (AJ is just 40 years old this year). The project reports identified short- and long-range issues for the city and provided valuable information that will inform future council and community actions.

For example, the city is moving forward on the Sustainability and Solid Waste project from the Project Cities Fall 2017 project list. City council voted to direct city staff to prepare a Request for Proposals (RFP) for the coordinated collection of solid waste and recycling. This vote shows that the Project Cities program model is working and is invaluable to communities like Apache Junction.

While the projects are of great value to Apache Junction, we also know that they are equally valuable to the student researchers. Students have gotten to know the city, the challenges we face, and they were able to provide objective analyses and practical recommendations on the issues.

We look forward to working with ASU, the Julie Ann Wrigley Global Institute of Sustainability, and Project Cities long into the future!

With gratitude,

Jeff Serdy, Mayor



Bryant Powell, City Manager



## **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 well-being.*

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## ABOUT PROJECT CITIES

The Project Cities program of Arizona State University (ASU) is a university-community partnership. For an entire academic year, faculty members 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. 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 U.S. and the 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 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](http://sustainablecities.asu.edu).

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Project Cities

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*Sustainability Through Local Action*

[projectcities.asu.edu](http://projectcities.asu.edu)

## **ABOUT APACHE JUNCTION**

The City of Apache Junction is well-situated on the eastern edge of Greater Phoenix, the 12th-largest metropolis in the U.S., yet it has a small-town, Western feel. This character 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 40,500 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 U.S. 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 it has set out to develop greater economic opportunities. In spring 2005, Apache Junction debuted the first LEED-certified city hall in Arizona. Apache Junction's aspirations and potential for sustainability, and the unique challenges it is facing, form the basis of its partnership with ASU's Project Cities program.

### **Apache Junction Team**

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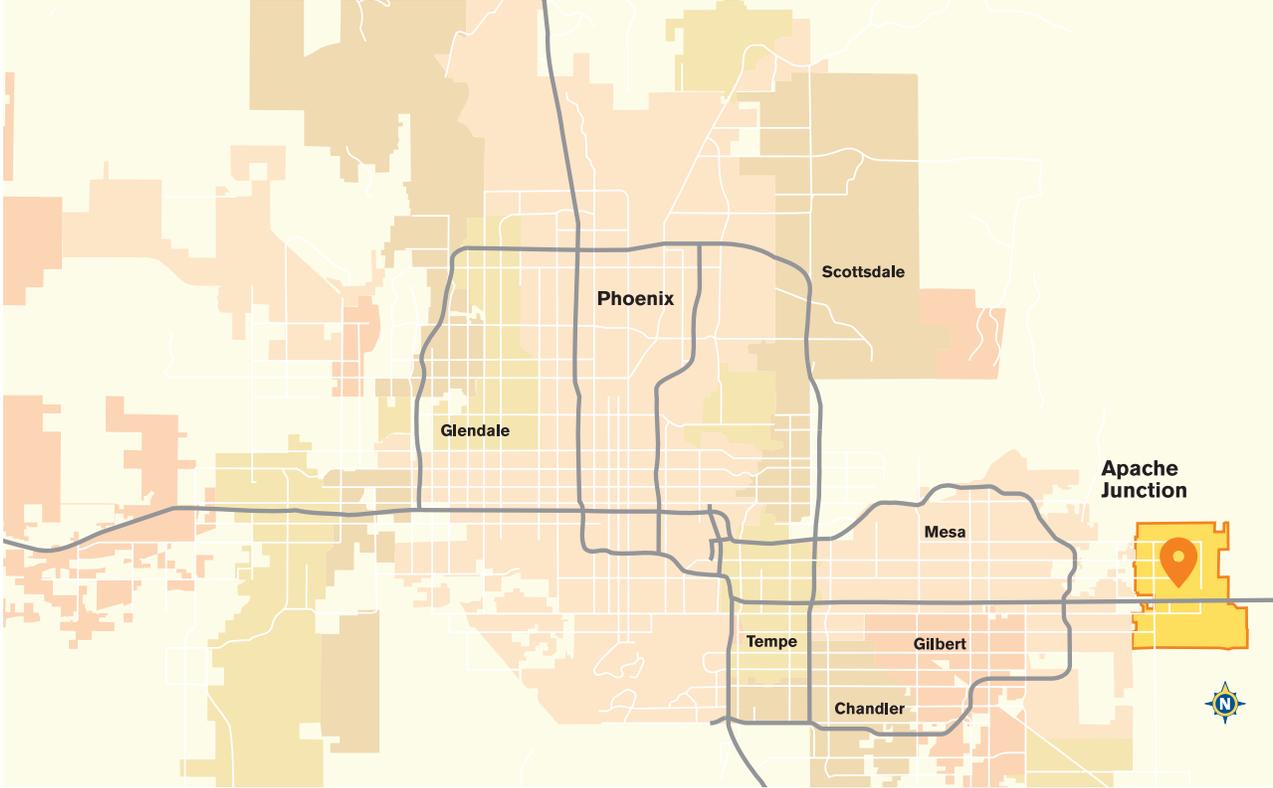


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*Surrounded by Legends*

ajcity.net

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



# POSITIVELY APACHE JUNCTION

A SPRING 2018 COLLABORATIVE REPORT OF  
ARIZONA STATE UNIVERSITY'S PROJECT CITIES  
& THE CITY OF APACHE JUNCTION



***The following report summarizes and draws highlights from work done by students in courses HST 485: History in the Wild: An Introduction to Digital History and THP 514: Projects in Community-Based Theatre for the Spring 2018 partnership between ASU's Project Cities and the City of Apache Junction.***

*Find the final materials generated by students in HST 485 and a summary report by students in THP 514 at [projectcities.asu.edu](http://projectcities.asu.edu). They are available under the project on the page "2017-2018 Partner: City of Apache Junction" found under the "Partner Cities" tab.*

## EXECUTIVE SUMMARY

The city of Apache Junction is located in south central Arizona, in the shadow of the Superstition Mountains. With its rich history on the silver screen and a plethora of natural and cultural attractions, Apache Junction has significant potential for tourism. Already, the city's population of roughly 40,000 doubles to nearly 80,000 each winter due to the seasonal migration of residents from colder climates. Beyond this current winter influx, Apache Junction officials would like to see the quality of life of its residents improve and the number of visitors and full-time residents increase. To attain that goal, City officials believe it is important to overcome the negative perceptions of the city. With the "Positively Apache Junction" campaign, Apache Junction aims to improve its image, attract business, and show that the city is a compelling year-round destination for residents and nonresidents alike.

Through the Project Cities program of Arizona State University (ASU), two Spring 2018 classes enlisted to support the Positively Apache Junction campaign. They were HST 485: History in the Wild: An Introduction to Digital History taught by Dr. Joshua MacFadyen and THP 514: Projects in Community-Based Theatre, a graduate-level course taught by Dr. Stephani Etheridge Woodson. Both courses looked to create resources for the community by highlighting the rich histories and narratives of Apache Junction. The students in HST 485 produced eight "histories of place" focused on Apache Junction topics such as the Apache Trail and the Apache Junction's Women's Club. In addition, they digitally surveyed local residents to identify places of value in or near the city and why they were of value. Theatre students in THP 514 demonstrated how such knowledge can be employed using art and performance to build community connections, shared narratives, and positive energy. They partnered with community members to perform four ghost tales drawn from Apache Junction's history, legend, and landscape.

**HST 485:** Students in this course used digital methods to conduct community-engaged historical research. They produced two sets of results. The first was eight histories of Apache Junction, with findings presented online as blogs. To research these topics, groups of students reviewed literature including local and online documents, visited the site virtually or physically, and informally interviewed community members. These place histories were about: the former location of the Superstition Ho Hotel (later known as The Grand Hotel); water in Apache Junction; the parks and recreational trails of Apache Junction; the Apache Trail; the lands once occupied by the Hohokam and Salado tribes; the Apache Junction Women's Club; and Apache Junction High School. The second

set of results was a digital map of Apache Junction places valued by residents or visitors. To achieve these results, they conducted a mapping survey. Through an online and in-person version of the survey, the students received nearly 200 responses and nearly 1,000 values. With this information, they generated a “values map” of the area. Students analyzed the results for findings and to inform their place histories. They also presented recommendations, including: 1) Develop cultural and tourism assets related to the sites identified in the mapping survey that could improve the quality of life and positive perception of Apache Junction; 2) create plaques for places of historical significance, such as where the Superstition Ho Hotel once stood, to commemorate history in Apache Junction; 3) host semi-annual community events near Canyon Lake that include water conservation education.

**THP 514:** Graduate students in this course created four 15-minute community-based performances. The performances were based on local stories to empower and enrich the community. The students devised their short plays by reviewing related literature, surveying and informally interviewing community members, and visiting related locations. In collaboration with community members, each student group interpreted the information they gathered to create a performance story. The resulting interactive performances featured: legends from the Apache and Zuni tribes native to the Superstition Mountains, a ghost tale set at the local Dirtwater Springs restaurant, a tale of miners and explorers revolving around maps, and a ghost story about the Lost Dutchman Gold Mine and a gruesome murder. On April 15, 2018 at Apache Junction's Flatiron Park, the plays were performed for a multi-generation audience. Final student recommendations for Apache Junction were: 1) build more artistic experiences that encourage intergenerational engagement through local history to further develop a sense of cohesive community; and 2) incorporate the arts into city planning.

The results of these classes showed that communities are empowered by sharing a sense of place through participatory storytelling. Accordingly, students were able to generate recommendations for the city based on their findings and experiences. However, these are intended as starting points for Apache Junction. The course reports are meant to provide ideas to stimulate deeper conversations for managers and policy makers.

Following this executive summary are introductory summaries of the work generated by each course. The summaries cover the problems targeted, research methods used, related findings, resulting recommendations, and areas for further exploration. Each summary is followed by student deliverables, which can be consulted for greater depth.

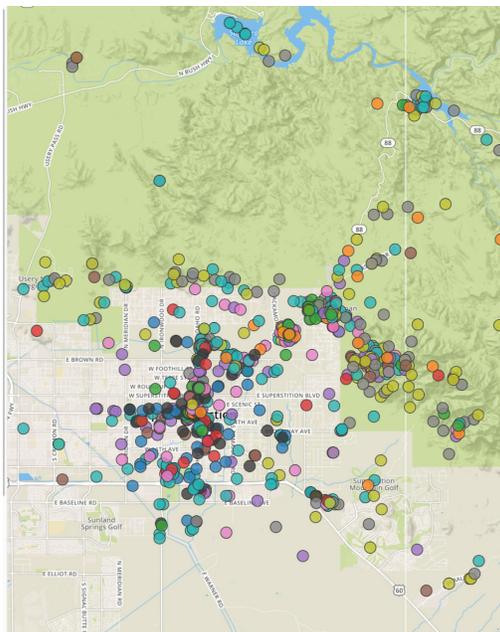
# GOAL & RECOMMENDATIONS FOR USING DIGITAL HISTORY TO IDENTIFY & PROMOTE VALUED PLACES IN APACHE JUNCTION

## Goal

The goal of this course project was to help Apache Junction improve its residents' quality of life and increase the full-time population and number of visitors by identifying places of value in and around the city and communicating place histories for those locations.

*While Apache Junction has a thriving winter tourism industry and strong assets, its officials want to overcome negative perceptions that impact the quality of life and deter visitors or potential residents from visiting or living in Apache Junction.*

### MAP OF VALUED PLACES IN APACHE JUNCTION



↑ A map of valued places according to a survey of nearly 200 participants created by students in HST 485.

A group of students in HST 485 researched the significance of the Superstition Ho Hotel. Today, there is a parking lot where it once stood. →

### SUPERSTITION HO HOTEL: THEN & NOW



# Recommendations for Celebrating History and Building Community History Resources

Celebrate History 	Build Community Resources 
<p>Develop a strong sense of place and local history. To do so, engage with sites that the local community highly values.</p>	<p>Leverage the achievements of Apache Junction women to create programs that benefit the City.</p>
<p>Develop cultural and tourism assets related to the sites in the community-values mapping survey.</p>	<p>Create and maintain an Apache Junction Women’s Club Scrapbook website and post historical information about the club’s achievements on social media.</p>
<p>Create plaques for areas of historical significance in Apache Junction. This could attract visitors and help explain the history of the town to the public.</p>	<p>Create a historical research club participated in by residents and visitors.</p>
<p>To strengthen the understanding of the significance of recreational facilities such as Prospector Park, which are mostly valued for their recreational potential, use the associated history and personal stories.</p>	<p>Start a new version of the women’s club, which could again become a source of pride and an engine for change and cultural renewal within the community.</p>
<p>Create promotional materials about highly valued places for the Positively Apache Junction marketing campaign and distribute these via social media.</p>	
<p>Use the former central location of Superstition Ho Hotel to connect with the community.</p>	
<p>Consult with the survey results to determine which locations need historical preservation projects.</p>	
<p>Public historians should advocate for investment in archival projects to preserve the City’s history, and for library services that continue to support community interest in local history.</p>	
<p>Seek ways to recognize the history and cultural value of indigenous tribes that lived in the area.</p>	
<p>Work to preserve indigenous sites in the Superstition Mountains, such as removing debris and preventing visitors from climbing on structures or taking artifacts.</p>	
<p>Consider displaying indigenous history, including information about sites in the nearby Sonoran Desert such as petroglyphs and Circlestone.</p>	

**Table 1.** Recommendations generated by the students of HST 485 for Apache Junction about how to employ the history of the region to strengthen community and promote positive associations.

## Recommendations on Making Use of Data & Using Survey Results for Sustainability

<b>Make Use of Data</b> 	<b>Use Survey Results for Sustainability</b> 
<p>Continue community-values mapping research through consultant projects and internally managed public participation geographic information systems (GIS) surveys.</p>	<p>Develop more sustainable initiatives in Apache Junction, as the survey revealed that respondents recognized Think Water at Flatiron Park, which encourages water conservation.</p>
<p>For stakeholders or other classes interested in place-based values, use software like Maptionnaire, if budgets permit.</p>	<p>Use Canyon Lake Marina, marked as important place to those who participated in the survey, to engage Apache Junction residents and visitors about importance of water in the community as well as its changing significance over time.</p>
<p>Use ongoing data collection to understand the values of the library and improve its functionality.</p>	<p>Host semi-annual community events near Canyon Lake that include water-conservation education.</p>
<p>Encourage the City's sustainability planners to examine the survey data. To advance growth while retaining valued areas, planners must respect and work with community values. In the survey, greenspace, access to nature, and aesthetics were highly identified.</p>	
<p>Supplement online exercises—such as the survey performed for this course—with mailout map surveys, surveys that target tourists and seasonal residents, and exercises conducted in public settings.</p>	
<p>Refine future community values surveys to be more representative of residents and visitors.</p>	
<p>Share the results of this final report and the first community-mapping exercise with the public, particularly those who requested information. Contact Project Cities for the list of emails volunteered by respondents who wanted to learn the results.</p>	
<p>Repeat this survey annually to see how results change.</p>	

**Table 2.** Recommendations generated by the students of HST 485 for Apache Junction about how to continue gathering and using data related to the area's history, and how to use existing data to encourage sustainability.

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## GOAL & RECOMMENDATIONS FOR BUILDING COMMUNITY WITH APACHE JUNCTION TALES

### Goal

The goal of this course project was to demonstrate how cultural assets can be used to build community cohesion and attract visitors.

*Apache Junction is a city rich in history and legend, but its positive assets are sometimes overshadowed by negative perceptions of the city.*

### IMAGES FROM INTERACTIVE STUDENT PERFORMANCES AT FLATIRON PARK



**CLOCKWISE FROM TOP:** A student embodies a mysterious woman who saved a Pueblo Tribe in the Superstition Mountains; an audience member interacts with a performance prop; and three students from Apache Junction's Youth Advisory Council join a group in its performance.

## Recommendations for Using Theater to Celebrate Community History

### Use Arts to Build Community



Offer more artistic experiences that encourage intergenerational engagement through local history. This engagement can further develop a shared sense of community.

Incorporate the arts into city planning.

**Table 3.** *Recommendations from students of THP 514 about encouraging art and using to build positivity.*

FACULTY JOSHUA MACFADYEN  
SCHOOL OF HISTORICAL,  
PHILOSOPHICAL & RELIGIOUS  
STUDIES

HST 485 HISTORY  
IN THE WILD:  
INTRODUCTION TO  
DIGITAL HISTORY  
SPRING 2018

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# Using Digital History to Identify and Promote Valued Places in Apache Junction

# ACKNOWLEDGEMENTS

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## INTRODUCTION

The City of Apache Junction and its surroundings are replete with historic landmarks and activities. Combining an attractive winter climate, beautiful scenery, and recreational opportunities, Apache Junction draws a crowd of seasonal visitors that effectively doubles its population during winter months. The potential for a great quality of life in Apache Junction, however, extends well beyond winter tourism. City officials would like to improve the quality of life and increase the number of full-time residents and visitors. To attain this goal, they believe that negative perceptions of the City must be overcome. As a part of its “Positively Apache Junction” campaign, the City seeks to maximize its tourism potential while benefiting its year-round population in a sustainable manner.

To support the City’s goal, the students of HST 485 “History in the Wild: Introduction to Digital History,” in the School of Historical, Philosophical, and Religious Studies at ASU, set out to identify places of historical value to residents and create histories of these places that the City could use as a resource. A parallel goal of the course was to train students in community-engaged historical research, including the study of place attachment and place history. Digital historians can help residents share a sense of place through participatory storytelling and mapping, thus building and empowering communities.

This course engaged students in two projects. The first was to create local histories related to Apache Junction and digitize the findings. Students were divided into eight groups and asked to research the history of a specific place or characteristic of the area of significance to residents and representatives. These were: the former location of the Superstition Ho Hotel (later known as The Grand Hotel), water in Apache Junction, the City’s parks and recreational trails, the Apache Trail (researched by two groups), the lands once occupied by the Hohokam and Salado tribes, women’s history in Apache Junction, and Apache Junction High School. After gathering stories and documents on these topics with the help of community leaders and through digital media, the students then created online blogs to post their results.

The second project was to locate places of value to the community through an online mapping survey. Students were trained in a participatory Geographic Information Systems (GIS) technique called community-values mapping. Using it, they created a survey that allowed participants to map places they value in and near Apache Junction, and

the students then assessed the results. These two projects reflect local history approaches of place history and community mapping—two ways of detecting and measuring place attachment in the local environment over time. Results of this work are meant to serve as resources for Apache Junction.

The rest of this introduction to the HST 485 section of the Positively Apache Junction report describes the problems the course addressed, the research methods students used, and selected findings. Next, it introduces student recommendations and opportunities for future research.

## PROBLEM

This course focused on two conceptual questions:

- Where are sites of cultural and natural importance in Apache Junction?
- How do people value those places compared to the rest of the region?

Such values tend to be associated with well-known cultural sites, sites of historic significance, and sites of natural beauty. However, community members also value places less obvious to outsiders. By conducting a survey to determine these places of value and researching the histories of such sites, students hoped to provide Apache Junction new insights that the City can use to improve the quality of life of its residents and attract new visitors and residents.

## RESEARCH METHODS

Students used the local history methods of place history and community values mapping. For the place history focus, they divided into eight groups of three to five students to research a specific place in or characteristic of Apache Junction or the surrounding area. Professor MacFadyen and City stakeholders identified 13 themes to choose from, and the student groups chose themes and identified places that corresponded. The criteria for the themes and places were that they be feasible research areas in the online setting and that the resulting histories would be useful to the Positively Apache Junction

*Students used two local history methods to produce two sets of findings for Apache Junction: place history and community-values mapping.*

team. The students also used results from the community-values mapping exercise to expand their findings and recommendations.

For community-values mapping, the students in HST 485 were introduced to public participation geographic information systems (PPGIS) and various approaches to values mapping. They used PPGIS to map places of importance to community members and identify their associated values, such as recreational or spiritual values. To do so, they created a survey that was then shared with residents of Apache Junction and nearby areas. (An independent graduate student also conducted community-values mapping using a paper map at two Apache Junction events.) This project was a first attempt at considering diversity and representation in place attachment in Apache Junction. Social scientists, seeking to consider the values and narratives of a broad cross-section of society, generally rely on participatory research. Increasingly, researchers use PPGIS, a version of community mapping that uses digital-mapping tools to survey and summarize the place attachment and landscape values of large community groups.

For the place-history research, students gathered details from the community. Because the course was online and only a few students lived nearby, it was a challenge to introduce students to the city and its surrounding environment and to ensure that both students and the community partner felt connected. Further, most of Arizona's rich local history materials, such as newspapers and manuscript collections, are not digitized and are only available in local archives. The following section outlines the methods used to answer the research questions and how these logistical problems were tackled in the course.

### ***Place History***

Place history uses techniques in digital history and environmental history to produce a study of a community's interactions with the built environment and natural landscapes over time. For this course, students used these techniques to produce a history of a specific place of value in Apache Junction or the surrounding area. (The eight places they focused on are explained in the findings section.)

**Literature Review:** This method involves reviewing documents and other content for greater insight into a topic. For their research on the histories of their chosen places, the students read history articles about the Southwest and U.S. and searched for published and archival sources

to help uncover the history of Apache Junction and the East Valley. Online sources included Tom Kollenborn's weekly column in the Apache Junction News (republished as Kollenborn Chronicles on the Apache Junction Public Library local history website) and materials on local social-media accounts.

**Site Visits:** The research method of site visits include observing a place and possibly interacting with people associated with it. In this case, local students were required to conduct site visits.

**Informal Interviews:** This research method is similar to a casual conversation. Groups without local students were required to contact local community members to learn about specific areas of Apache Junction history.

### ***Community-Values Mapping***

Community-values mapping and PPGIS exercises are common ways of measuring place attachment and landscape values in the social sciences. These methods are also becoming easier for historians to access through new web-based PPGIS tools like Maptionnaire. For this course, Project Cities paid for a single-project license of Maptionnaire, which students used to design, conduct, and analyze surveys.

**Surveying:** This research method involves asking people a set of questions to extract insight and data on a topic. In this case, the researchers intended the survey to highlight physical places that residents value for their past, present, and future potential and to identify the specific values attached to them. It was primarily done using Maptionnaire, which made it possible to tie the survey to the physical area through an interactive map. The survey began with a standard explanation of the project and questions about the participant's demographics (demographics are important so the City can compare the respondent demographics with the community's in order to assess participation and representativeness.)

The survey then asked participants to identify and mark on a map places that they value in Apache Junction today. Respondents could choose from five present-day values and map as many of each value as they wanted in any area. (The map was interactive but it was centered on

*Link to the survey of places of value in Apache Junction: <https://app.maptionnaire.com/en/4009> (last visited July 2018)*

the Apache Junction city limits by default.) For example, someone might consider Canyon Lake a place she values, and apply one or more of the value markers labeled “recreational.” A sixth present-day value was called “special places.” This marker allowed respondents to write a short, optional explanation of why they valued this place. The survey then moved into public history terrain by asking about personal, community, and regional or national historical place values in the past or present. Finally, the survey asked community members to think about places where additional development initiatives from the City could help enhance what the course called “future values.” There were a total of 12 possible values (6 present, 3 past, and 3 future), and respondents could map an unlimited number of each value using the markers in Maptionnaire. (See Figure 1 for the values.)

To distribute this survey, officials launched it on the City’s social media and internal email channels. Because there were less than two weeks available to obtain results, students determined 10 to 20 responses would be adequate for a very preliminary analysis. After only three days on social media, however, the survey had dozens of views and 25 active respondents. After it was shared with City employees via an internal email, and the results of a separately conducted in-person survey were input, the survey had nearly 150 respondents and nearly 1,000 values

### VALUES SURVEY PARTICIPANTS COULD CHOOSE FROM

<p><u>Present</u></p> <ul style="list-style-type: none"> <li>Recreational</li> <li>Aesthetic</li> <li>Natural</li> <li>Cultural</li> <li>Spiritual</li> <li>Special Place</li> </ul>	<p><u>Past</u></p> <ul style="list-style-type: none"> <li>Personal History</li> <li>Community History</li> <li>Arizona/U.S. History</li> </ul>
<p><u>Future</u></p> <ul style="list-style-type: none"> <li>This place should have more access to food (groceries and restaurants)</li> <li>This place should have more greenspace.</li> <li>This place should have more recreational facilities (walking trails, splash pads, etc.)</li> </ul>	

**Figure 1.** The values available in the Maptionnaire survey about Apache Junction places conducted by the HST 485 class.

mapped. (Superstition Mountain Museum also shared the survey on its Facebook page, which resulted in a few respondents).

As indicated, an independent graduate student also conducted an in-person survey with a paper map at two Apache Junction events before the online survey was distributed. Respondents were primarily rodeo and expo staff and volunteers. The reported values were manually entered into Maptionnaire to be combined with the online results. The in-person survey results were the first to be gathered and totaled around 200 values; the online phase of the survey generated about 800.

Students noted that this method's results might not paint a clear picture of all community values. Survey-wide demographics showed that participants were primarily residents between the ages of 22 and 65. There were slightly more female participants than males. While this does correspond largely with demographic data, it constitutes less than 1% of the City's total population. Further, the methods used to distribute the survey may have homogenized results, as the paper map mainly reached City employees and volunteers, and the most successful digital outreach was to City employees and invested citizens who engage with the City through its Facebook page. Therefore, while the number of responses received in the short time frame was enriching, the analysis may not represent majority opinions.

### **How the Obstacle of Remote Collaboration Was Overcome**

One problem with conducting place-based research in an online setting is enabling students to develop a sustained knowledge of the local environment. To help students gain a better understanding of Apache Junction, Professor MacFadyen produced three online videos for students on location at the Apache Junction Lost Dutchman Days Rodeo (see Figure 2), one of the largest events in the region. To overcome communication issues that might arise from online communication, MacFadyen emailed and met with City officials several times on the ASU campus. He also visited Apache Junction several times, once with students. After the initial meetings and videos, students maintained online communication with community members, corresponded with City staff and reached out to experts in areas they were researching. These efforts enhanced student understandings of the City and project outcomes.

## LINKS TO COURSE VIDEOS FILMED ONSITE AT THE LOST DUTCHMAN RODEO

An introduction to Apache Junction, AZ (13:31):

<https://asuonline.wistia.com/medias/0pu4sf77ts>

My First Rodeo: The Lost Dutchman Days Rodeo (1:46):

<https://asuonline.wistia.com/medias/1dap1hs0tm>

Apache Junction Rodeo: Values Mapping in Apache Junction (1:38):

<https://asuonline.wistia.com/medias/n2lckkzfl9>

*(last visited July 2018)*

**Figure 2.** *The values available in the Maptionnaire survey about Apache Junction places conducted by the HST 485 class.*

## FINDINGS

The class project resulted in: 1) eight histories, which were digitized in online blogs, and 2) a community survey displaying the results of an online mapping exercise. In addition, the community survey results were used to enrich the context of the histories of the student groups.

### EIGHT HISTORIES

Broadly, the student groups found that **Apache Junction's employees, library, museums, and historical records were rich resources.**

References to iconic sites like the Apache Trail, Apacheland, and ranching and mining in the Superstition Mountains were plentiful.

However, other sites, including **the now defunct Grand Hotel and Superstition Park, were more difficult to research.**

Gathering information on Apache Junction High School was also challenging due to current teacher pay conflicts that limited sources within the school.

Therefore, some blogs were more fleshed out than others. These gaps represent opportunities for residents to fill in the blanks.

### Superstition Ho Hotel

Superstition Ho Hotel, later known as The Grand Hotel, was a central business and cultural icon from 1960 until its demolition in 2004. The student research team explored several sources of information, including deeds, newspaper articles, and photographs. According to the group (Group 1), the hotel's former location at the junction of highways 60, 70, 88 was the

*The Missing Heart  
of Apache Junction:  
[themissingheartof  
apachejunction.word  
press.com](http://themissingheartofapachejunction.wordpress.com)*

*(last visited July 2018)*

heart of the city before and after it incorporated. As a point of historical interest, the Superstition Ho Hotel was where stars and film crew stayed when filming at Apacheland. Elvis Presley, Lisa Lu, future president Ronald Reagan, and many others took refuge here. More broadly, **the hotel offered an opportunity for visitors to connect with the residents of Apache Junction and Arizona, and was something for which the area was remembered.** The students suggested that many residents miss the structure that stood at 201 West Apache Trail, while others feel its demolition was best to make way for progress. (See Figures 3 and 4 for then and now photos.) **In the survey map, the area where the hotel once stood was primarily noted as “The Junction,” rather than a historical place.**



*Figure 3. A 1960 advertisement for the Superstition Ho archived by the Facebook page Westward Ho Time Capsule.*



*Figure 4. A photo of where Superstition Ho Hotel once stood taken by student Holly Jones.*

## Water in Apache Junction

This project outlined the importance of water infrastructure in Apache Junction, highlighting the impact water has had from indigenous farming and the settlement period to the present day. It also covered groundwater management in Apache Junction, recreational opportunities on Canyon and Roosevelt lakes, and the addition of the Central Arizona Project water supply to help support Apache Junction's growing population.

To raise awareness of historical and current water issues in Apache Junction, the group (Group 2) presented a digital timeline and information from aerial photography, reclamation documents, and interviews with Apache Junction citizens. They hoped to change perceptions about, and promote a positive view of, Apache Junction.

*Water in Apache Junction:*  
[apachejunctionwater.wordpress.com](http://apachejunctionwater.wordpress.com)

*(last visited July 2018)*

## Apache Junction's Parks and Recreational Trails

This group of students (Group 3) focused on seven Apache Junction parks and recreational trails. They used geospatial analysis tools such as GoogleEarth and ESRI Story Maps to help tell short histories of key parks, such as the creation of Flatiron Park (see Figure 5). The resulting blog provides community partners and members with a visual representation and history of the most-trafficked parks and trails. It also hosts historical information about Superstition Park, Pinal County's very first park, which seems to have been nearly forgotten based on the results of the community-values mapping survey.

*Apache Junction Parks & Trails:*  
[ajparkstrails.com](http://ajparkstrails.com)

*(last visited July 2018)*

## Apache Trail and the City of Apache Junction

Using materials from the National Archives and the National Anthropological Archives, this group (Group 4) explored how the creation of The Apache Trail relates to Apache Junction and how the trail continues to impact the community. They covered its transition from footpath to wagon trail to government supply road to tourist destination. They also delved into the foundation of a mercantile by the Apache Trail in 1922 by businessman George Curtis that grew into the town. Reviewing the survey results, **the students noted that the Apache Trail connects many valued places in the city, from Flatiron Park to the Lost Dutchman Museum to Roosevelt Lake.** While not explicitly marked in the survey, Apache Trail is important to community values



**Figure 5.** This compilation by the Parks and Recreation group shows the creation of Flatiron Park via aerial photographs.

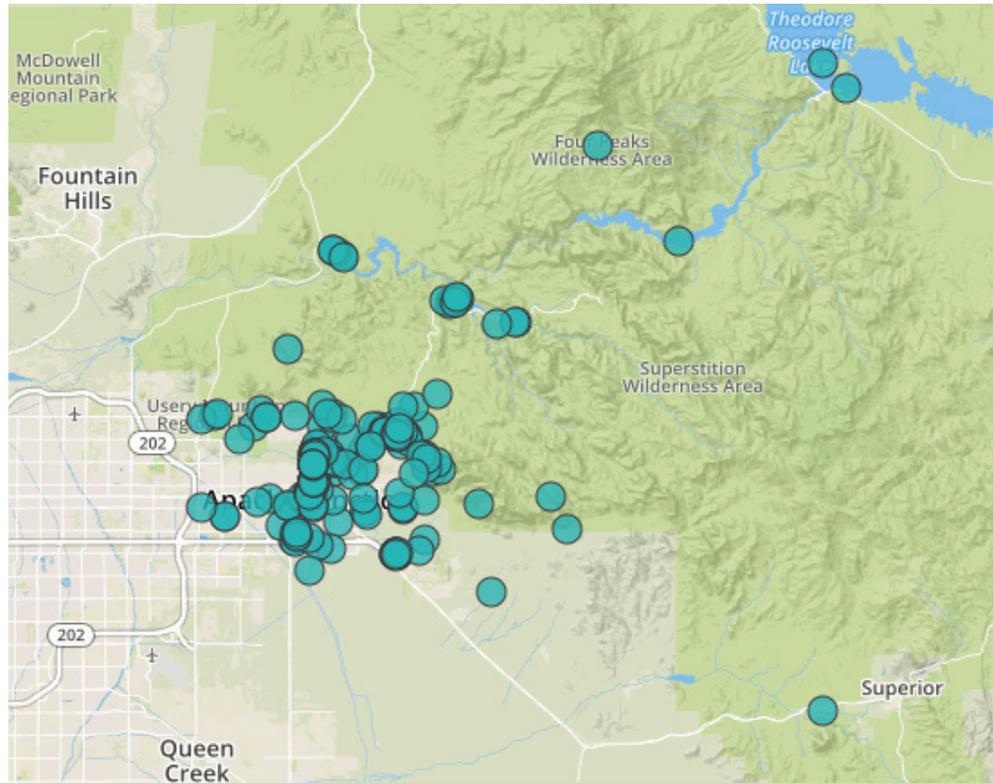
in the city and area, according to the students' findings. This group's place history of the Apache Trail shows how vital the road has been and continues to be.

### **Apache Trail and the Lost Dutchman Marathon**

This group (Group 5) also focused on historical aspects of the Apache Trail, and in particular, they were interested in the sites along the historic trail that have been used for recreational activities such as the Lost Dutchman Marathon. Their project was designed to raise awareness of recreational opportunities and activities in the area. Reflecting on the survey results,

***Finding Apache Junction:***  
*findingapachejunction.wordpress.com*  
*(last visited July 2018)*

the students noted that **the Lost Dutchman State Park and nearby places are valued by respondents for recreational value** (see Figure 6).



**Figure 6.** Places that were given recreational value in the Maptionnaire survey.

### **The History of the Hohokam and Salado Tribes in the Apache Junction Region**

Moving beyond the immediate area of Apache Junction, this group (Group 6) delved into the history of the area's earliest inhabitants. Aerial videography and photography allowed the students to explore lands once occupied by the Hohokam and Salado tribes.

***Legacy of the Hohokam and Salado Tribes: [group6apachejunction.wordpress.com](http://group6apachejunction.wordpress.com)***

*(last visited July 2018)*

While the students identified compelling history and locations based on the survey, **residents were more connected to the goldmining and cowboy history of the area than the history of its indigenous populations.** Areas with significant cultural value such as **petroglyphs or the ruins of Circlestone were not particularly noted by those surveyed for cultural or historical significance.** In composing this history, the students aimed to raise awareness and respect of the Hohokam and Salado tribes that once resided in the area and foster a deeper sense of identity among Apache Junction's current residents.

### **Women's History in Apache Junction**

This group (Group 7) compiled a digital archive of scrapbooks kept by the Apache Junction Women's Club. Digitizing scrapbook materials on a website made them accessible to residents as well as tourists or historians. The group focused on historical influence of the library and other important local institutions developed by the Women's Club.

Apache Junction has relied upon grassroots organization and celebrated the role of self-rule in community development, even in the years before it incorporated as a City. **Over the 30-year history of the Women's Club, its membership brought many large-scale projects to fruition and fostered strong ties with the community.** For example, the Woman's Club sought to bring the community together by rebuilding the badly damaged public library. Opal Hansen led efforts to rebuild the structure on a new lot donated by two seasonal Apache Junction residents. On July 6, 1966, the library was opened to the public at 122 E. 2nd Avenue. Another community resource the group supported was Epicenter Family Services, a nonprofit family counseling center focused on raising awareness of child-abuse and sexual assault. Initially there were community objections to the center, but the Women's Club supported it. Epicenter's shelter broke ground in 1984 with help of the club and federal funding.

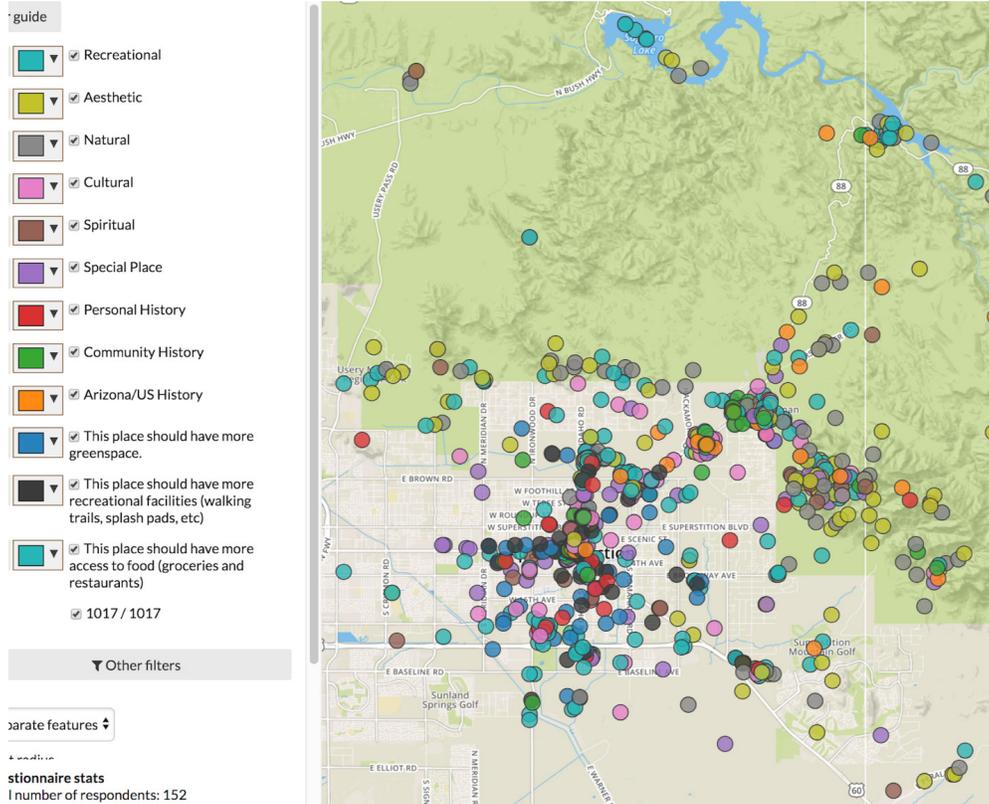
**Apache Junction  
Women's Club  
Scrapbooks:  
[ajwcscrapbooks.com](http://ajwcscrapbooks.com)**  
*(last visited July 2018)*

## **Apache Junction High School**

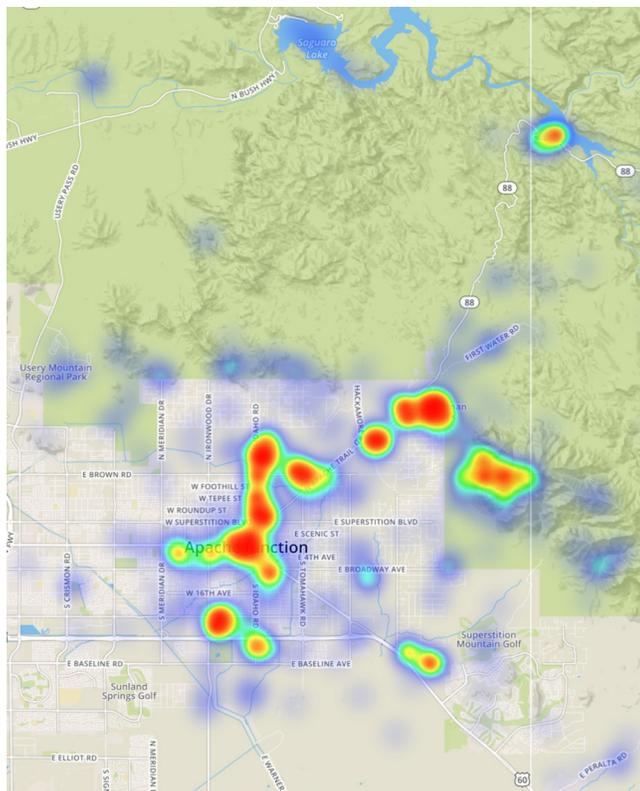
This group (Group 8) worked on the history and present-day values surrounding Apache Junction High School on South Ironwood Drive. The most useful resources were the local history book *The History of Apache Junction, AZ* by James Swanson and Thomas Kollenborn and Kollenborn's blog. To acquire more information about the school and its influence in the region, they tried to contact the school's principal for an interview. While they hoped to get information from current students and teachers, they did not receive any responses. From the community-mapping survey, **students noted that the high school was valued as a cultural and "special place," with recreational value identified onsite and nearby.**

## **COMMUNITY VALUES MAPPING SURVEY**

Using an in-person survey with a paper map conducted at the Lost Dutchman Days Rodeo and the Marathon Expo and an online PPGIS tool called Maptionnaire, students polled residents and visitors about community values and places. The mapped aggregate results (see Figures 7, 8, and 9) generated compelling insights about place attachment in the city. The survey shows that strong place attachment exists for a variety of reasons and at many different locations. The aggregate values map (Figure 7) shows color-coded dots identifying a place important to a resident and the reason a resident is attached to it. The heat map (Figure 8) shows high concentrations of dots where the most popular places were located or where community members felt more amenities or better access were needed. **The most highly identified places of value included the Superstition Mountains, Lost Dutchman State Park, Superstition Mountain Museum, the Apache Junction Public Library, Apache Junction City Hall, Veterans Park, Flat Iron Park, Goldfield Ghost Town, and Canyon Lake Marina.** The bar graph (Figure 9) shows the relative dispersal of value types community members cited as reasons for attachment to the different places on the maps. **Recreational locations were the most frequently identified, totaling 272 values, followed by places of aesthetic (164 total) or natural value.** These results may prove useful for City planning staff.



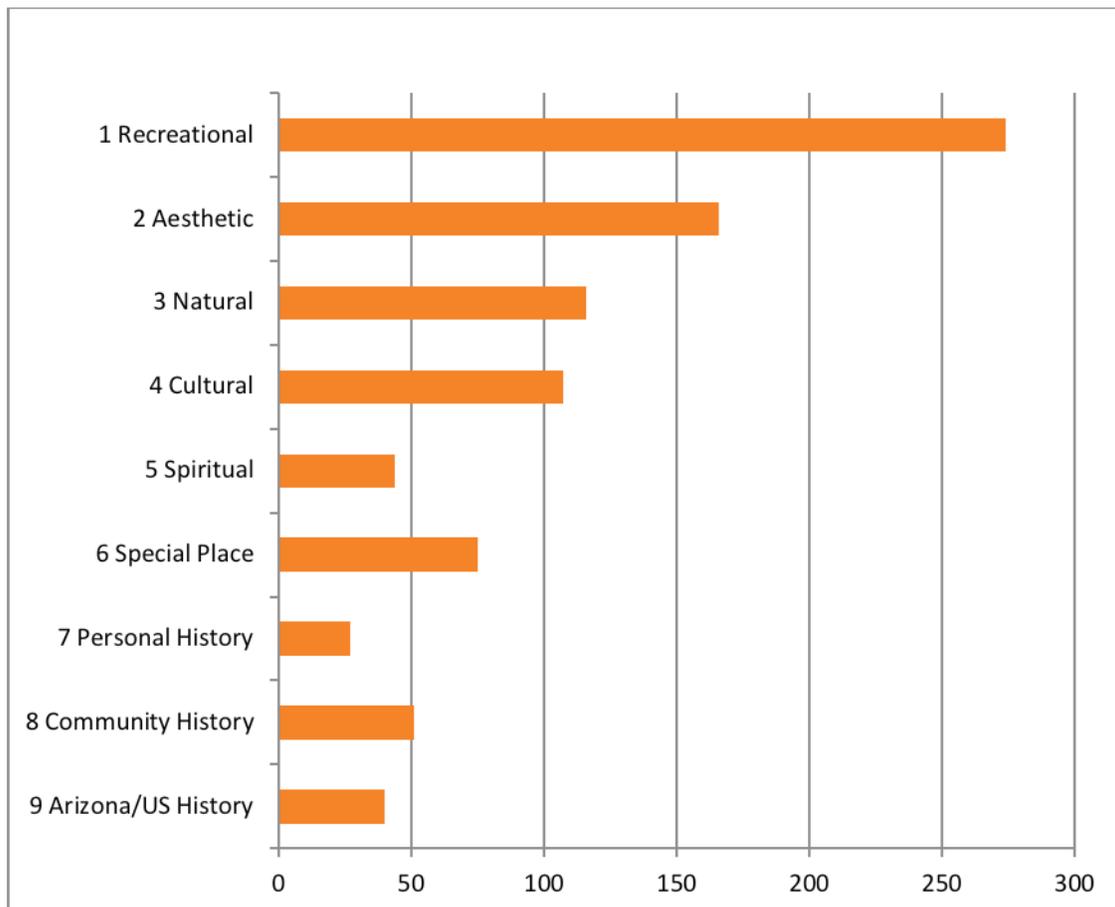
**Figure 7:** Map of valued locations in Apache Junction. The color-coded legend shows values representing the present (first 6 values), past (next 3), and future (final 3) categories.



**Figure 8:** Heat map showing the density of all values mapped in Apache Junction.

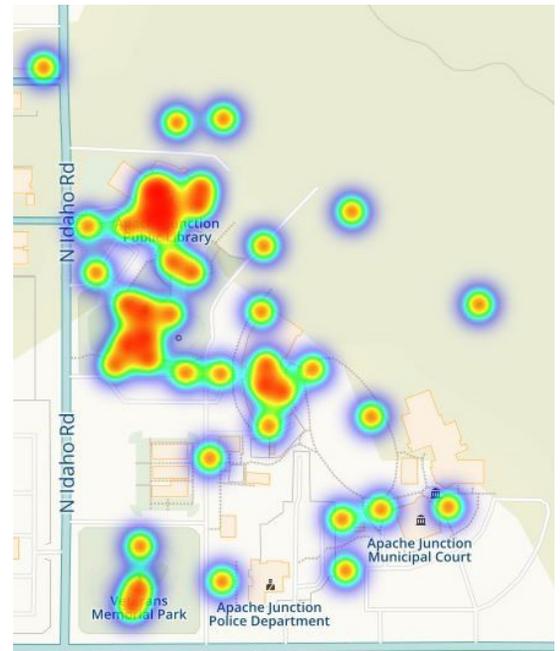
**The highest density of values are located near the center of Apache Junction, including the area at the Y-junction where Apache Trail, Highway 88, and the Old West Highway meet.**

Values identified here represented both the past (history and culture) and present (recreation and aesthetic). **Another place that received a high density of place values was the City Complex** (see Figure 10), where City Hall, Parks and Recreation, the Multi-Generational Center, Apache Junction Public Library (see Figure 11), Municipal Court House, Four Peaks Elementary School are located. **A third, high-density location was Lost Dutchman State Park**, which was primarily labeled with recreational values, but also noted for its historical significance (from Group 2's reflection on survey results, which can be found online). An interesting result revealed in the City Complex area was that **the**



**Figure 9:** Frequency chart comparing the nine most common values mapped in Apache Junction and surrounding area.

**Apache Junction Public Library received a large number of labels for its recreational and historical value.** Residents see this library as a place of community history more than the Superstition Mountain Museum, which was itself valued largely as a special location. In addition, **the library received more recreational values than the Multi-Generational Center.** Multiple residents commented on how valuable the library is as a place of community history, as a community center, and as a place to spend free time. Some of the recreational valuing could also be due to children’s or adult programming resonating with women between the ages of 22–45, as this demographic group, in particular, marked the library as having high recreational value (see Figure 11). **Prospector Park received the most**



*Figure 10. City Complex survey hotspots.*



*Figure 11. The exterior of the popular Apache Junction Public Library. Image via its Facebook page.*

**value placements of the survey locations reviewed by the Parks and Trails student group. It received 44% of recreational value placements, followed by Flatiron Park at 14%. The Multi-Generational Center received only 6%. For Prospector Park, the next highest value chosen was “aesthetic,” followed by “this place should have more recreational facilities.” Notable here is the absence of cultural values or personal histories attached to the park, considering how much activity takes place there throughout the year (see Group 3’s reflection on survey results online).**



*Figure 12. A trail approaching Superstition Mountain within Lost Dutchman State Park. Taken by Andy Atzert, <https://flic.kr/p/aaXEmS>.*

As for values associated with the surrounding mountains, **while trails of the Superstition Mountains were valued by 37 survey respondents for aesthetics and natural beauty (see Figure 12), only 3% of them valued it as cultural and 2% for its historical significance.** The 42 respondents who valued Lost Dutchman State Park and Goldfield Ghost Town largely did so for their recreational and natural beauty values. This finding indicates **these locations are less valued for connecting to history or spirituality, reflecting a lack of knowledge or interest in the area’s indigenous history** (from Group 6’s reflection on survey results, which can be found online).

## RECOMMENDATIONS

Apache Junction has a number of challenges and opportunities. Based upon their findings, the students offered these recommendations:



### *Celebrate History*

1. Continue developing a strong sense of place and local history, particularly with sites that the local community highly values. The City could encourage or sponsor investments in new public-history research and commemorative efforts. The Apache Junction Public Library could contribute by making digitized documents, oral histories, and other local resources more accessible.
2. Consider developing cultural and tourism assets related to the sites in the community-values mapping survey that could enhance the quality of life and positive perceptions of Apache Junction.
3. Create plaques for areas of historical significance, such as where the Superstition Ho Hotel once stood, to commemorate historic sites within Apache Junction. Plaques could serve to attract visitors and help explain the history of the town to the public (see p. 2 of Group 1's reflection on survey results online).
4. To strengthen the understanding of the cultural and special significance of recreational facilities such as Prospector Park, which are mostly valued for their recreational potential, use the associated history and personal stories for Positively Apache Junction.
5. Use the central location of the former Superstition Ho Hotel to connect with the community in Apache Junction as an aspect of the Positively Apache Junction campaign.
6. Consult with the survey results to determine which locations need historical preservation projects (p. 16, Group 2 reflection).
7. Public historians should advocate for investment in archival projects to preserve the City's history and for library services to continue supporting community interest in local history (p. 24, Group 3 reflection).
8. Create promotional materials about the most highly valued places in Apache Junction for the Positively Apache Junction marketing campaign and distribute these via social media.

9. Seek ways to recognize and integrate the history and cultural value of the indigenous tribes who lived in the area (p. 14, Group 6 reflection).
10. Work to preserve the indigenous sites in the Superstition Mountains, such as removing debris and preventing visitors from climbing on structures or taking artifacts. Local resident Tom Kollenborn could be consulted about this, as he has presented ideas in his blog (p. 14, Group 6 reflection).
11. Consider displaying indigenous history, including information about sites in the nearby Sonoran Desert such as petroglyphs and Circlestone, at points throughout Apache Junction.



### *Make Use of Data*

1. Continue community-values mapping research through projects with consultants and internally managed public participation GIS surveys. The first attempt at using Maptionnaire was a great success and identified several sites with of value.
2. For stakeholders or other classes interested in place-based values, use software like Maptionnaire, if budgets permit.
3. Use ongoing data collection to understand the values of the library, which was identified as important to the community, and improve its functionality (see p. 4 of Group 7's reflection on survey results online).
4. Encourage the City's sustainability planners to examine the survey data. To advance growth while retaining valued areas, planners must respect and work with community values. In the survey, greenspace, access to nature, and aesthetics were highly identified (see p. 13 of see Group 4's reflection on survey results online).
5. Supplement online exercises—such as the survey performed for this course—with mailout map surveys, surveys that target tourists and seasonal residents, and exercises conducted in public settings. The online mapping tool is a popular and enjoyable exercise that gathers cultural and landscape values far beyond the individual survey and even town hall methods. However, the medium invites other biases because it requires computer literacy, internet connection, and awareness of the survey in the first place.
6. Refine future community values surveys so they are more representative of area residents and visitors.

7. Share the results of this final report and the first community-mapping exercise with the public, particularly those who requested information. Contact Project Cities for the list of emails volunteered by respondents who wanted to learn the results.
8. Repeat this survey annually to see how results change.



#### *Use Survey Results for Sustainability*

1. Consider developing more sustainable initiatives in Apache Junction, as the survey revealed that respondents recognized Think Water at Flatiron Park, which encourages water conservation (p. 2, Group 1's reflection).
2. Consider using Canyon Lake Marina, marked as important place to those who participated in the survey, to engage Apache Junction residents and visitors about importance of water in the community as well as its changing significance over time (p. 16, Group 2 reflection).
3. Host semi-annual community events near Canyon Lake that include water-conservation education.



#### *Build Community Resources*

1. Leverage the achievements of Apache Junction women to create programs that benefit the City.
2. Create and maintain an Apache Junction Women's Club Scrapbook website, and post historical information about the club's achievements on social media.
3. Create a historical research club participated in by residents and visitors.
4. Consider starting a new version of the women's club, which could again become a source of pride and an engine for change and cultural renewal within the community.

## AREAS FOR FURTHER EXPLORATION

Students agreed that the City should consider doing further work that is focused on specific sites or questions about the sites that were identified in the community-values mapping survey. It could be useful to form focus groups containing representative stakeholders from these sites and invite them to work with specialists from ASU (for example faculty and staff from the School of Historical Philosophical and Religious Studies and possibly even students from History 485, some of whom were planning to continue on with graduate studies at ASU). The focus groups could consider the specific survey results from those areas, as well as related histories from the course and from local heritage groups, with the goal of addressing some of the recommendations and helping Positively Apache Junction invest in highlyvalued zones within Apache Junction and the larger region.

## CONCLUSION

As research conducted by the students of HST 485 demonstrated, Apache Junction is rich with places of historical and community value. While the students delved into the histories of seven specific facets of the City and its surrounding area, their survey also revealed a number of hotspots valued by community members. The students hope that their work will raise awareness about the history and significance of places in or near the city and engage people in learning more about their area. This project was intended to help change perceptions of Apache Junction and promote a positive view of the city for residents and visitors alike. Sharing this history, and building upon the findings of students with place-based marketing plans or community resources are just two ways the City could integrate these findings into its Positively Apache Junction campaign.

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FACULTY STEPHANI  
ETHERIDGE WOODSON  
HERBERGER INSTITUTE  
FOR DESIGN & THE ARTS

THP 514: COMMUNITY-  
BASED THEATRE  
SPRING 2018

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# Building Community with Apache Junction Legends

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## INTRODUCTION

Apache Junction is a city rich in history and legend. However, negative perceptions of the city at times overshadow the City's positive assets. With its Positively Apache Junction marketing campaign, the City aims to dispel such these associations and instead promote its cultural and natural wealth to build community morale and attract visitors. To support this effort and demonstrate how cultural assets can be used to this end, students in the ASU Spring 2018 course THP 514: Community Based Theatre, created four performances based on local stories. This section of the Positively Apache Junction report delves into the students' research and the resulting performances and takeaways.

To begin, the class of graduate student theatre artists divided into four groups who sought to discover and devise ghost stories and legends drawn from the city's history, legends, and landscapes. The class chose this focus because such tales are a noted asset of the city. In fact, the Superstition Mountains were named from such legends. Research methods included reviewing literature (archives and local histories), interviewing and surveying community members, and observing the city and its events. Once they had gathered ghost stories on which to base their performances, the student groups worked with community members to produce and refine the narratives. From these findings and interactions, each group created a 15-minute, interactive performance. The students presented these performances back-to-back on April 15, 2018 in Apache Junction at Flatiron Park before a mixed-age audience of community members. Stories included a legend about the creation of the Superstition Mountains, tales of miners and explorers, and a ghost story set in the local Apache Junction restaurant Dirtwater Springs.

Through the Positively Apache Junction campaign, the city seeks to build social cohesion and collective pride. Accordingly, the students planned these performances to encourage community cohesion and creative expression. The project demonstrated how history, culture, and the performing arts can uncover shared values among the city's historical assets and shared narratives. Accordingly, the primary recommendations from the students were to: 1) build artistic experiences that encourage intergenerational engagement and further develop a sense of cohesive community through local history; and 2) incorporate the arts into city planning.

The remainder of this “Building Community with Apache Junction Ghost Stories” section of the Positively Apache Junction report explains the students’ research methods, performances, and recommendations, as well as ideas for further exploration.

## **PROBLEM**

Some residents of the city and surrounding area negatively perceive Apache Junction as a haven for elderly seasonal visitors—a city with a multitude of mobile home parks and an underperforming economy. The daily repetition of those negative perceptions affects community morale and identity, overshadows Apache Junction’s wealth of assets, and may serve to discourage people from visiting or moving to the city. Community theater is one way the City can celebrate its strengths while building connections and shared values among its community.

## **RESEARCH METHODS**

Theater demands creativity, while community-based stories require research. Students reviewed literature, surveyed and interviewed community members, and observed the city to discover and develop background information on which to base their playwriting and performances. Further, working with local sources helped the students tell stories of Apache Junction that intrigued but also informed. In doing so, they built connections while empowering the community.

**Literature Review:** This research method involves reviewing a host of documents for data and information. Students turned to the Apache Junction Public Library for archives and local history to review and learn the legend and lore of the City.

**Story Circles and Storytelling Sessions:** Each group used this informal research method, similar to interviewing or surveying, to develop their performances. For example, for the performance set at the restaurant Dirtwater Springs, students spent several hours asking questions and listening to stories of the owner and waitresses. Students also conversed with people at the Apache Junction Visitor Center, antique stores, the Apache Junction Public Library, Apache Junction High School, and Superstition Mountain Museum. For these gatherings, they asked residents about legends, ghost tales, or their experiences with “haunted places” in the area.



**Figure 13.** Three high school students, members of the Youth Advisory Council, pictured with an ASU graduate student (second from left), participated in creating and performing.

**On-Site Observation:** Researchers use this method to gain a sense of a place and how it is used or perceived by spending time there. For their performance research, student groups attended the Lost Dutchman Rodeo, explored the mountains surrounding Apache Junction, and attended City meetings.

**Collaboration:** Using the gathered information, students collaborated with the Apache Junction Teen Advisory Council and other residents on their performances and received feedback. This collaboration helped the students to select and refine the stories and ensure the stories were told ethically and accurately. High school students from the Youth Advisory Council also participated in a performance (see Figure 13).

During the research and development phase, the theater students also hosted a workshop with the Apache Junction High School theater class.

## RESULTS

Building on the collected information, each group of students created a 15-minute performance of a ghost story or legend based in Apache Junction. One group included three high school students from the Youth Advisory Council. The performances were multi-sensory, meaning they were interactive or included an interactive element like food or props to encourage audience participation. The performances therefore represented the community's cultural heritage while cultivating creative expression. Audience members were encouraged to continue the conversations sparked by the performances, or share their own stories of Apache Junction's past. In this way, the students demonstrated how performance can enliven a space and be a community asset.

*Watch the final theater production at [youtu.be/c5yecUNDL1Q](https://youtu.be/c5yecUNDL1Q)*

The students chose Apache Junction's Flatiron Park for their performances, as the park was the most preferred option of city officials and students since it had welcoming grass and access to power, lights, and restrooms (see Figure 14). Performed back-to-back, the four 15-minute performances added up to an engaging 1-hour performance. The audience ranged from small children to retirees, and featured a number of families.



**Figure 14.** Apache Junction's Flatiron Park. Photo by City staff.

**First performance:** A ghost story set at the restaurant Dirtwater Springs. This performance highlighted the little-known fact that Apache Junction was home to Arizona's first zoo, which was set where the restaurant is located now and shared the same original owners as the restaurant. For its performance, this group offered chips and salsa for audience members to partake in as a representation of the dining experience at Dirtwater Springs.

**Second performance:** Ghost stories about the Lost Dutchman Gold Mine and a gruesome murder. Three high school students from the Youth Advisory Council joined this performance. Audience members were encouraged to share their own experiences with ghosts in Apache Junction.



**Figure 15.** ASU graduate student Sara El Sayed embodied “the pale faced woman” from a legend about a mysterious woman who protected a Pueblo tribe from a Zuni attack in the Superstition Mountains for one of the performances.

**Third performance:** A telling of two legends of tribes native to the area. One was based on the legend “Pale Faced Lightning,” about a mysterious, pale-faced woman who protected a Pueblo tribe from Zuni attack in the Superstition Mountains (see Figure 15). This group offered audience members trail mix and beef jerky from a fake gourd “spruce gum ark.” Spruce gum is a traditional chewing gum made from spruce tree resin. In the creation myth of the Akimel O’odham (Pima) tribe, which has deep historical ties in the region, a shaman and his wife survived a flood by sealing themselves in a ball of spruce gum.

**Fourth performance:** Stories about Superstition Mountains miners and explorers that involved maps. The students encouraged the audience to interact with the performance by looking through a hole in a cactus the group built to reveal the designed storyline (see Figure 16), which was relevant because a map to a gold mine was rumored to have been etched on a plant. The performers also gave audience members a cardboard heart that symbolized the story of the Peralta Heart Map, rumored to indicate the location of the Lost Dutchman’s gold mine. One student did a puppet performance, which the audience greatly enjoyed.



*Figure 16. An audience member peeks through a hole in a cactus, an interactive prop that the students incorporated in to their performance.*

## RECOMMENDATIONS

Because the goal of this project was to produce these performances, the students’ recommendations built upon the values of community engagement and creative expression. They advised Apache Junction to:



1. Offer more artistic experiences that encourage intergenerational engagement through local history to further develop a sense of community.
2. Incorporate the arts into city planning.

## **AREAS FOR FURTHER EXPLORATION**

In addition, the student researchers advised that the City take advantage of the archives from the Apache Junction's Women's Club, also explored by students in HST 485 for this Spring 2018 Positively Apache Junction report, to create a play about the women of Apache Junction.

Extend the student findings and performances into a public event before Halloween celebrating ghost stories and legends based on local history. This could be done as a festival or a series of public performances. This Halloween event could be an enriching experience for the community and a holiday-related attraction for visitors.

## **CONCLUSION**

Apache Junction seeks to dispel negative perceptions of its city while building community morale and attracting visitors. Exploring the city's history through theatrical performance is one path for building positive community values. Theater students in the Spring 2018 ASU course THP 514: Community Based Theatre Class delved into ghost stories known to Apache Junction's older generations and performed them with and for younger audiences. Their activities encouraged intergenerational connection and community cohesiveness while highlighting the area's wealth of narratives. They also demonstrated to City staff that theater can serve as a community asset and bring a space to life. Additionally, theater can also attract visitors. For all these reasons, the students recommended that the City integrate arts into future city planning. This effort could not only support creative expression and build community, but also spur positive perceptions of the city among residents and visitors.

# PLANNING A SUSTAINABLE FUTURE

A SPRING 2018 COLLABORATIVE REPORT OF  
ARIZONA STATE UNIVERSITY'S PROJECT CITIES  
& THE CITY OF APACHE JUNCTION



*The following report summarizes and draws highlights from work done by students in course PUP 458: **Planning for Sustainable Communities for the Spring 2018 partnership between ASU's Project Cities and the City of Apache Junction.***

*Find the final report generated by students in PUP 458 at [projectcities.asu.edu](http://projectcities.asu.edu). It is available under the project on the page "2017-2018 Partner: City of Apache Junction" found under the "Partner Cities" tab.*

## EXECUTIVE SUMMARY

According to the national nonprofit organization STAR Communities, a sustainable city has a healthy environment and a strong economy and cultivates well-being for its residents. STAR Communities, which stands for “Sustainability Tools for Assessing and Rating Communities,” is a data-driven system created by local governments to enable them to assess their efforts, track progress, and create a roadmap toward a sustainable future. The seven goal areas of its framework for assessing cities are Built Environment; Climate and Energy; Economy and Jobs; Education, Arts, and Community; Equity and Empowerment; Health and Safety; and Natural Systems.

Apache Junction has already begun implementing sustainability efforts, such as hosting a farmers market, releasing ladybugs to control pests, and getting government buildings LEED-certified. Its 2010 General Plan acknowledges important aspects of sustainability such as energy efficiency. However, the city aspires to broadly integrate sustainability in an action-oriented way. Officials want to know how the city is performing, what more it could do to be sustainable, and how to grow and evolve sustainably. Further, how can Apache Junction engage its community in these efforts? And finally, how can this be more thoroughly implemented in the 2020 General Plan Update?

To help Apache Junction answer these questions, the Spring 2018 Arizona State University course PUP 548: Planning for Sustainable Communities partnered with Project Cities to assess sustainability in Apache Junction using the STAR Communities framework. The students examined all seven goal areas, assessing the city’s current performance and future needs while looking to peer cities to inform their recommendations. To do so, they reviewed city documents and used resources such as the U.S. Census Bureau’s American Community Survey and the U.S. Department of Agriculture’s Food Access Research Atlas. They also took part in seminars and meetings with the city, interviewed community members and city staff, and conducted onsite observation.

**PUP 548:** This graduate-level class was dedicated to assessing Apache Junction’s sustainability performance and creating actionable recommendations for the city. To do so the students divided into pairs or individually tackled one of the seven Goal Areas, reviewing each objective of the goal areas and evaluating Apache Junction’s performance. (While

there are eight Goal Areas, the eighth, “Innovation and Process,” was added in 2016 and was not considered a main Goal Area for this report.) Based on these results, and in some cases through consulting case studies of peer cities, the students created recommendations for the city. For each goal area, they presented general recommendations for action and specific recommendations for the 2020 General Plan. Among the general and specific recommendations were: 1) Diversify water sources; 2) develop indicators that quantitatively measure the community’s preparedness for environmental threats and create goals for these indicators; and 3) engage retirees in sharing their knowledge with and providing services for local businesses.

Student findings and recommendations, informed by research, an applied framework, and city-specific opportunities, are intended to help Apache Junction. However, any pursuit of the recommendations requires professional review and consideration. The course reports are meant to stimulate deeper conversations among managers, policy makers as well as staff, residents, and community groups.

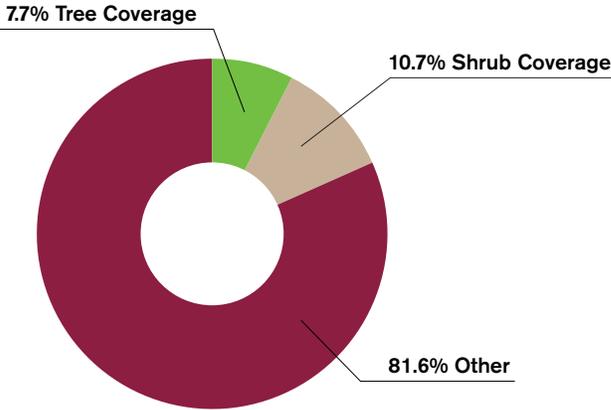
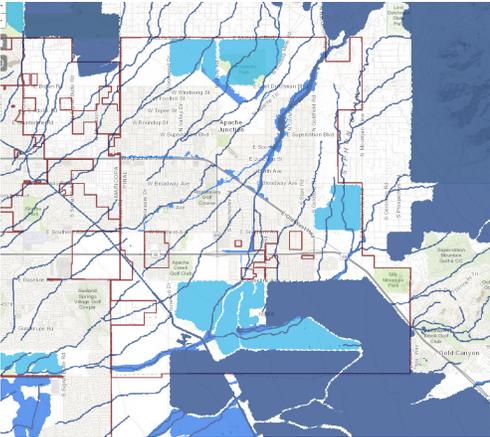
Next in this report are the goal of the project and tables of the final student recommendations. Following these is a summary of the work done in the course, including the problem targeted, research methods used, research findings, resulting recommendations, and areas for further exploration. This report concludes with the students’ report in its entirety, which should be consulted for greater depth and clarity about how recommendations were reached.

# GOAL & RECOMMENDATIONS FOR PLANNING A SUSTAINABLE FUTURE

## Goal

The goal of this report is to identify how Apache Junction might create a sustainable future using the STAR Community Rating System™ framework, which is based on social, economic, and environmental performance indicators.

*Apache Junction has made strides toward sustainability but is not sure how to proceed. The City also desires to further integrate sustainability efforts into its upcoming 2020 General Plan Update.*



*Clockwise from top left: CACZA hydrography of Apache Junction reveals water resources associated with 8,933.2 acres (p. 53); The amount of types of coverage in Apache Junction according to i-Tree (p. 55); Central Arizona College holds potential in the Economy & Jobs Goal Area (p. 39).*

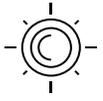
## Recommendations for the Seven Goal Areas of the STAR Communities Rating System™



**Built Environment:** This Goal Area is focused on Apache Junction’s design and development patterns and emphasizes “...livability, choice, and access for all where people live, work, and play,” according to STAR.

General Recommendations	Recommendations for the General Plan 2020 Update
Diversify water sources and manage all water sources and wastewater under a single system, rather than multiple systems.	Introduce a water resource strategy that will implement new sources of water, increase reclamation efforts for irrigation and other uses, and create a single system to manage water.
Consider adding trails that connect natural resources to the downtown area, creating a sense of place while increasing multimodal transportation options.	Create stricter guidelines and enforcement procedures for stormwater permitting and related activity on private lands.
Establish a cohesive inventory of infrastructure assets, which enables a city to be aware of its assets and their conditions.	Pursue a system to measure groundwater withdrawals on private land and quantify water supply being used in the city.
Set aside money to maintain city infrastructure and ensure that it is continually improved.	Develop a placemaking strategy that includes culture and arts, guides mixed-use development in downtown Apache Junction, and includes connectivity to natural resources and trails.
Begin planning how to connect to the Valley Metro Rail based on its extension plans.	Establish a cohesive asset management plan to inventory and assess city infrastructure.
For creative transportation planning on a tight budget, look to Curitiba, Brazil for inspiration.	Develop plans for connecting to Metro Phoenix public transit.
Prioritize connectivity to the Valley Metro Light Rail system and other Metro Phoenix systems. New possibilities are smart shuttle start-ups like Bridj and Chariot.	Develop a citywide vision to improve walkability based on walkability index maps available online. The most recognized is the EPA’s National Walkability Index.
Enact a comprehensive transportation policy to support the development of a compact, complete, affordable transportation system.	Outline safety concerns, anticipated errors, and strategies for transitioning toward a multimodal transportation scheme.
	Create a scheme, guidelines, and goals to help build connections between different transportation modes.

**Table 1.** Recommendations generated by the PUP 548 students who focused on the Built Environment Goal Area.



**Climate & Energy:** This Goal Area aims to “reduce climate impacts and increase resource efficiency in order to create safer, healthier, and more resilient communities,” according to STAR.

General Recommendations	Recommendations for the General Plan 2020 Update
<p>Require greenhouse gas (GHG) emissions data be collected and considered in local decision-making and planning, including future growth. The U.S. Community Protocol for Accounting and Reporting Greenhouse Gas Emissions is a helpful tool.</p>	<p>Create a performance-measurement system that tracks overall GHG emissions. Provide neighborhood-level data.</p>
<p>Participate in a carbon climate registry to track and report climate targets and GHG emission reductions.</p>	<p>Report progress toward environmental adaptation goals on an annual basis.</p>
<p>Identify citywide vulnerability to future changes in environmental norms, assess risks from those projected changes, and develop adaptation strategies.</p>	<p>Consider GHG reduction and mitigation strategies.</p>
<p>Promote Salt River Project’s shade-tree program that supports customers in planting trees in energy-saving locations surrounding their homes.</p>	<p>Develop indicators that measure the community’s preparedness for environmental threats and create goals for these indicators, and then report findings and actions annually.</p>
<p>Develop a program for home landscape water audits to increase water efficiency through recommended technology.</p>	<p>Undertake building energy-use data collection to obtain accurate energy use information for commercial, residential, and other buildings. Ensure that data is transparent and accessible to residents.</p>
	<p>Develop a home landscape water audit program to increase water efficiency.</p>
	<p>Support community-driven environmental action and response efforts and create a related neighborhood network.</p>

**Table 2.** Recommendations generated by the PUP 548 student who focused on the Climate & Energy Goal Area.



**Economy & Jobs:** The aim of this Goal Area is to “work together to promote equitably shared prosperity and access to quality jobs,” according to STAR.

General Recommendations	Recommendations for the General Plan 2020 Update
Envision and invest in Central Arizona College (CAC) as an anchor institution to support residents and local businesses and built community identity.	Use the community college, retirees, and natural environment for economic development strategy.
Make CAC the hub for skill-building opportunities for local employees, workforce trainings, and youth and senior citizen activities, allowing for new types of networking and can result in a more cohesive community identity.	Create specific plans that lay foundations for targets and strategies and complement the 2020 General Plan Update. The specific strategies should have year of completion, target dates, and the roles of relevant stakeholders.
Encourage CAC to increase spending with local suppliers to spur local economic growth. The benefit to the college would be proximity, which facilitates shorter turnaround times for orders and reduced transportation costs.	Include strategies for how to create community engagement and partnerships, as community inclusion is vital for implementing and funding plans.
Provide mentorship, guidance, and strong support networks for local businesses by encouraging CAC to offer consulting service and networking opportunities.	
Engage retirees in sharing their knowledge with and providing services for local businesses.	
Make downtown Apache Junction the epicenter of tourist activities by connecting it to the natural landscape and open space that surrounds it. To do so, partner with local businesses, nonprofits, or community-development organizations to connect the downtown to trails and recreation activities.	

**Table 3.** Recommendations generated by the PUP 548 students who focused on the Economy & Jobs Goal Area.



**Education, Arts, & Community:** The intention of this Goal Area is to “promote an educated, cohesive, and socially connected community,” according to STAR.

General Recommendations	Recommendations for the General Plan 2020 Update
Encourage the Apache Junction Unified School District to prepare annual progress reports for the public on its performance, which are useful for parents and schools.	Establish education funding to support students from low-income households in graduating from high school.
Support offering multiple pathways to graduation for students to improve educational outcomes.	Set a goal of improving the high school graduation rate.
Provide funding or other resources to local Head Start programs.	Establish an art education program to provide residents, especially youth, with marketable skills.
Work with public school districts to offer special arts education programs that align with a core curriculum, especially early elementary grades.	Interact with local artists and nonprofits to enhance and promote the Old West characteristic of Apache Junction through arts programming.
Collaborate with private, nonprofit, or regional organizations to increase access and participation in the arts.	Include a community cohesion plan to enhance public participation.
Adopt a strategic plan intended to enhance the community’s arts and cultural resources and strengthen creative industries.	
Hire local artists to create public artwork, sculptures, or performances.	
Adopt neighborhood plans that guide future development, recommend strategies to create or preserve community venues, and address neighborhood-specific issues.	
Make information about community issues, programs, services, and activities accessible to non-English speaking residents.	
Provide programs that support the development of youth leaders, particularly in low-income and minority neighborhoods.	

**Table 4.** Recommendations generated by the PUP 548 student who focused on the Education, Arts, and Community Goal Area.



**Equity & Empowerment:** While other STAR goal areas and objectives address equity and empowerment, this is exclusively focused on promoting “equity, inclusion, and access to opportunity and community resources for all community members,” according to STAR.

### General Recommendations\*

Educate residents about neighborhood hazards that they may be exposed to and what is causing them, such as waste storage. One way to do so could be the distribution of fliers.

Determine the neighborhoods that lack resources and reliable transportation, and then increase community resources and assets there.

To increase participation in City Council meetings, target disadvantaged communities and see what they need to be a part of decision-making. Such necessities may include holding the meetings outside of normal business hours or offering onsite daycare.

Encourage City officials to visit homes and talk with residents, which will demonstrate that the officials care about their opinions and may increase public participation.

**Table 5.** Recommendations generated by the PUP 548 student who focused on the Equity & Empowerment Goal Area.

*\*This group did not make implementation recommendations for the 2020 General Plan Update.*



**Health & Safety:** This Goal Area encourages “proactive efforts to prevent disease, injury, and premature death by fortifying protective factors and reducing risk factors that undermine healthy outcomes,” according to STAR.

General Recommendations	Recommendations for the General Plan 2020 Update
<p>Consider employing pop-up food markets to increase access to healthful foods at a discounted price. This type of market also fosters a cohesive community and promote healthy eating and lifestyles.</p>	<p>Increase residential density around Apache Trail, which will help bring more residents closer to health facilities and grocery stores.</p>
<p>Add the performance of ongoing data collection, evaluation, and monitoring to track trends and identify emerging community needs to the Apache Junction Police Department Strategic Plan.</p>	<p>Support the establishment of neighborhood nodes in the more rural residential parts of the city to allow for sustainable development and decrease reliance on stores and facilities along Apache Trail. Aim for these nodes to have grocery stores that offer healthful food to reduce food deserts.</p>
	<p>Increase education and outreach for health and safety training to help the City determine what its related goals should be for its 2020 plan update and how it can plan to achieve them.</p>
	<p>Incorporate law-enforcement policies, as Apache Junction’s General Plan has no policies or strategic goals addressing law enforcement.</p>

**Table 6.** Recommendations generated by the PUP 548 students who focused on the Health & Safety Goal Area.



**Natural Systems:** This Goal Area is “intended help communities protect and restore the places that provide resources to support life,” according to STAR.

General Recommendations	Recommendations for the General Plan 2020 Update
Solidify long-term preservation of wildlife corridors with state and federal landowners.	Prioritize open space and the environment.
Partner with Central Arizona Conservation Alliance (CAZCA) to integrate natural system information into the Apache Junction Geographic Information System (GIS).	Add green street infrastructure implementation intended to capture and naturally disperse rainwater.
Partner with BLM and the state government to transform BLM and State Trust Land around Apache Junction into a preserve.	Outline societal, economic, and environmental benefits of urban compactness.
Partner with schools to further public education about natural resources.	Encourage downtown development by enhancing financial benefits.
Use the trail connectivity plan presented by ASU students to Apache Junction in May 2016 to increase recreational usage of natural lands and maintain natural resources.	Adopt a tree ordinance like that of Scottsdale, which follows Tree City USA guidelines.
Participate in regional collaboration such as a county-wide committee that works on local standards and specifications for minimizing stormwater pollution.	
Collaborate with CAZCA to inventory, assess, and survey Apache Junction’s natural resources, and then adjust development policy and building codes to maintain natural resources.	
Create promotion cards to showcase and solicit homebuilders or commercial developers to participate in Apache Junction’s green building programs	
Introduce a tiered pricing system that increases development costs outward from the city center.	

**Table 7, Part 1.** Recommendations generated by the PUP 548 students who focused on the Natural Systems Goal Area.

## Natural Systems, continued

General Recommendations	Recommendations for the General Plan 2020 Update
<p>Create incentive programs to encourage landowners to adopt green infrastructure that links to broader green infrastructure systems.</p>	
<p>Upgrade public spaces and buildings based upon locally adopted or recognized best practices in green infrastructure and continue to create demonstration projects to enhance public support. (As pointed out by a City staffer, Apache Junction's City Hall is a premier example of this.)</p>	
<p>For development, use a Green Infrastructure Spatial Planning model that employs the six criteria of stormwater management, social vulnerability, greenspace, air quality, urban heat island amelioration, and landscape connectivity.</p>	
<p>Dedicate a percentage of funding to green infrastructure.</p>	
<p>Adopt STAR suggested actions for the preservation and development of lands, including educating the community about the importance of natural resources beyond scenery or economic impacts.</p>	
<p>Use nature-based design solutions to ensure ecosystem functions are protected, restore the functionality of degraded systems, help mitigate and adapt to climate change, and improve risk management. Benefits include carbon storage and pollution reduction.</p>	

**Table 7, Part 2.** Recommendations generated by the PUP 548 students who focused on the Natural Systems Goal Area.

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PUP 548 PLANNING FOR  
SUSTAINABLE COMMUNITIES  
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# **Identifying Paths to Sustainability Using the STAR Community Rating System™ Framework**

## **ACKNOWLEDGEMENTS**

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## INTRODUCTION

Apache Junction is a city rich in natural resources and assets. As it grows, the City continues to make efforts to provide its residents with a high quality of life and involve them in the decision-making process. The update of the City's General Plan for the coming decade is a prime opportunity to identify how the city could be more sustainable and establish related goals and plans for achieving them. To support Apache Junction's efforts, the students of PUP 548 "Planning for Sustainable Communities" set out to assess the city's sustainability performance using the STAR Community Rating System™ (STAR) framework. A nationally recognized assessment tool, the STAR framework was developed by and for local governments to measure community sustainability based on social, economic and environmental indicators.

The project goal was to identify additional paths to a sustainable future. To assess Apache Junction's current conditions and sustainability practices, students in PUP 548 worked independently or in pairs to research one of the seven major STAR Goal Areas: Built Environment; Climate and Energy; Economy and Jobs; Education, Arts, and Community; Equity and Empowerment; Health and Safety; and Natural Systems. Each team gathered information on the city's performance in the STAR Goal Areas by inventorying and analyzing relevant data on the city, engaging with the community, and observing the city. Then they compared their findings with the STAR Leading Indicators and literature detailing best practices from other cities to assess the city's strengths and weaknesses and generate recommendations for Apache Junction's 2020 General Plan Update.

Students generated general recommendations for Apache Junction and specific ones for the city's 2020 General Plan Update for each of the seven STAR Goal Areas. A few of the recommendations included the following: establish an asset management plan to inventory and assess the condition of the city's infrastructure; invest in Central Arizona College as an anchor institution that can strengthen the local economy; and develop neighborhood nodes in the more rural, residential parts of the city to offer healthful food options to reduce food deserts. It is up to Apache Junction to identify the recommendations that have the most promise and determine how to incorporate them into its 2020 General Plan Update.

The remainder of this report explains the research methods the students used and then presents their findings. These include Apache Junction's strengths and weaknesses in each Goal Area. They also include recommendations for each Goal Area in two categories: 1) general; and 2) specific to the City's plan update.

## **PROBLEM**

Apache Junction has plans to increase public facilities and ensure greater public health when it comes to air, water, and waste pollution. However, the City has a number of areas upon which it could improve, and it could also be more concrete in how it intends to execute its plans. As Apache Junction develops its 2020 General Plan Update, the city would like to identify how it can become more sustainable. Therefore, students set out to conduct a sustainability assessment of the City and develop recommendations for its 2020 General Plan Update.

## **RESEARCH METHODS**

Students or pairs of students researched one of the seven major STAR Goal Areas (Figure 1). Each Goal Area has between five and seven objectives. Students used these objectives to assess Apache Junction's performance, focusing particularly on the STAR Leading Indicators. First, they gathered information through inventorying and analyzing public records, academic and government reports, community engagement, and observation. The report sections concluded with recommendations for the City, some of which were based upon researched case studies.

**Data Gathering and Analysis:** This research method involved collecting data from a range of validated sources and analyzing it to extract helpful information. For the report, student groups collected data about Apache Junction that related to their STAR goal area indicators. Broadly, data were gathered from online resources, scholarly databases, and from the City, including its 2010 General Plan Update and the Apache Junction Trail Connectivity, Downtown Visioning, and State Land Visioning report. Students also reviewed data specific to their Goal Area from range of sources like the U.S. Census Bureau. For example, for Natural Systems, the students examined data from the Apache Junction Geographic Information Science (GIS) site, Central Arizona

## THE EIGHT GOAL AREAS OF THE STAR COMMUNITIES FRAMEWORK AND THEIR OBJECTIVES

Built Environment	Climate & Energy	Economy & Jobs	Education, Arts & Community	Equity & Empowerment	Health & Safety	Natural Systems	Innovation & Process
Ambient Noise & Light	Climate Adaptation	Business Retention & Development	Arts & Culture	Civic Engagement	Active Living	Green Infrastructure	Best Practices & Processes
Community Water Systems	Greenhouse Gas Mitigation	Green Market Development	Community Cohesion	Civil & Human Rights	Community Health	Biodiversity & Invasive Species	Exemplary Performance
Compact & Complete Communities	Greening the Energy Supply	Local Economy	Educational Opportunity & Attainment	Environmental Justice	Emergency Management & Response	Natural Resource Protection	Local Innovation
Housing Affordability	Energy Efficiency	Quality Jobs & Living Wages	Historic Preservation	Equitable Services & Access	Food Access & Nutrition	Outdoor Air Quality	Good Governance
Infill & Redevelopment	Water Efficiency	Targeted Industry Development	Social & Cultural Diversity	Human Services	Health Systems	Water in the Environment	
Public Parkland	Local Government GHG & Resource Footprint	Workforce Readiness	Aging in the Community	Poverty Prevention & Alleviation	Hazard Mitigation	Working Lands	
Transportation Choices	Waste Minimization				Safe Communities		

**Figure 1.** This shows the seven main Goal Areas of the STAR Framework, plus an eighth that was recently added, “Innovation and Process,” which the students did not address.

Conservation Alliance (CAZCA) maps, an analysis from the i-Tree website (itreetools.org), and the U.S. Fish and Wildlife Service National Wetlands Inventory. Insight was also gathered from case studies of similar assets in other cities.

**Seminars, Interviews, and Meetings:** This research method involves generating data and information from personal interactions. Because not all context or details needed for the analysis or resulting recommendations could be collected from documents or website materials, these interactions with city staff or community members allowed students to understand the background, particulars, and specific needs of Apache Junction’s planning process.

**On-Site Observation:** This method involve visiting a location to gain context and personally experience the space, which provides data and informs suggestions. In this project, students took an on-site tour of the City with Apache Junction staff and program instructors. This tour helped the students gain further insight into the City and create more integrated suggestions.

**STAR Communities Rating System™ Sustainability Assessment Framework:** This method applies the system created by STAR Communities, a nationally recognized organization, which is used by counties and cities around the nation to compare data and observations with designated objectives and purposes. If fully applied, the Framework includes assigning points for each goal area. However, only a couple student groups did so. (See Tables 8 and 9 for how students applied points for the Built Environment Goal Area.) Instead, students focused on reviewing the Leading Indicators of STAR Communities, which are spread out across the seven main Goal Areas, to identify the city’s strengths and weaknesses. There are 21 Leading Indicators based on measures from the STAR Community Rating System that were developed in partnership with the Urban Sustainability Directors Network (see Figure 2).

**THE 21 LEADING INDICATORS OF THE STAR COMMUNITIES RATING SYSTEM™**

<p><u>Built Environment</u></p> <ul style="list-style-type: none"> <li>▪ Drinking Water Quality</li> <li>▪ Safe Wastewater Management</li> <li>▪ Housing and Transportation Costs</li> <li>▪ Transportation Mode Split</li> <li>▪ Transportation Safety</li> </ul>	<p><u>Equity &amp; Empowerment</u></p> <ul style="list-style-type: none"> <li>▪ Environmental Justice, Risk, and Exposure</li> <li>▪ Equitable Access and Proximity to Foundational Community Assets</li> </ul>
<p><u>Climate &amp; Energy</u></p> <ul style="list-style-type: none"> <li>▪ Climate Adaptation, Vulnerability Assessment</li> <li>▪ Greenhouse Gas Emissions</li> <li>▪ Renewable Electrical Energy Supply</li> <li>▪ Total Solid Waste</li> </ul>	<p><u>Economy &amp; Jobs</u></p> <ul style="list-style-type: none"> <li>▪ Businesses</li> <li>▪ Employment</li> <li>▪ Median Household Income</li> <li>▪ Living Wages</li> </ul>
<p><u>Education, Arts, &amp; Community</u></p> <ul style="list-style-type: none"> <li>▪ Third Grade Reading Proficiency</li> <li>▪ High School Graduation Rate and Graduation Rate Equity</li> </ul>	<p><u>Health &amp; Safety</u></p> <ul style="list-style-type: none"> <li>▪ Food Security and Assistance</li> <li>▪ Access to Healthful Food</li> <li>▪ Violent Crime Rate</li> </ul>
	<p><u>Natural Health Systems</u></p> <ul style="list-style-type: none"> <li>▪ Designated Green Infrastructure</li> </ul>

*Figure 2. The 21 leading indicators of STAR Communities.*

<b>Objective &amp; Purpose</b>	<b>Total Points</b>
<b>BE-1 Ambient Noise &amp; Light:</b> Minimize/manage ambient noise & light levels to protect public health and the integrity of ecological systems	N/A
<b>BE-2 Community Water Systems:</b> Provide a clean and secure water supply for all local users through management of potable water, wastewater, stormwater, and other piped infrastructure	<b>7.5/15</b>
<b>BE-3 Compact &amp; Complete Communities:</b> Concentrate development in compact, human-scaled, walkable centers and neighborhoods that connect to public transit, offer diverse uses and services, and provide housing options for families of all income levels	<b>10.9/20</b>
<b>BE-4 Housing Affordability:</b> Construct, preserve, and maintain adequate and diverse supply of location-efficient and affordable housing options	<b>3.5/7</b>
<b>BE-5 Infill &amp; Redevelopment:</b> Focus growth and redevelopment in infill areas to reduce sprawl and ensure existing infrastructure that supports the community is in satisfactory working condition	<b>0/10, although have infill plans)</b>
<b>BE-6 Public Parkland:</b> Create a system of well-used and enjoyable public parkland that feature equitable, convenient access for residents throughout the community	N/A
<b>BE-7 Transportation Choices:</b> Promote diverse transportation modes, including walking, biking, and public transit, that are safe, low-cost, and reduce vehicle miles traveled	4.9/15
<b>Totals</b>	<b>26.8/67</b>

**Table 8.** This table features the quantitative results of the Built Environment assessment. (See page 4 of the student report online for more detail.) Each STAR Goal Area has several objectives that consist of several outcomes with point values that equal the objectives total. Students researched each applicable objective for their Goal Areas and assigned Apache Junction a point value that matched how well the city was meeting it. For example, Apache Junction received 3.75 points toward its score for the second Built Environment objective, “BE-2,” because the students gave it the total 3.75 points available for the objective’s first evaluation measure, “Drinking Water Quality” (see Table 9). This is because the city met the measure of: “Demonstrat[ing] that the community is not in violation of EPA’s drinking water rules for chemical and microbial contaminants in water pipes and turbidity.” Overall, the main improvement areas for Apache Junction are diversifying water supplies, creating placemaking guidelines, and making different modes of transportation available and accessible. (Any indicator with N/A was not examined by the students as they are not Leading Indicators of the Goal Area. This choice does not reflect on Apache Junction. However it is worth noting that Apache Junction has a Dark Sky ordinance and 796.5 acres of green space.)

<b>Evaluation Measure</b>	<b>Description</b>	<b>Points</b>
<b>1: Drinking Water Quality</b>	Demonstrate that the community is not in violation of the Environmental Protection Agency's (EPA) drinking water rules for chemical and microbial contaminants in water pipes and turbidity	<b>3.75/3.75</b>
<b>2: Water Footprint</b>	Option A: Demonstrate that the ratio of water withdrawals for human use to the total renewable water resources is less than 0.2  Option B: Demonstrate that the ratio of water withdrawals for human use to the total renewable, stored, and allocated water resources is less than 0.2 [Partial credit applies]	<b>0/3.75*</b>
<b>3: Safe Wastewater Management</b>	Demonstrate that all EPA National Pollutant Discharge Elimination System (NPDES) permit holders, including publicly owned treatment works, are in compliance with Clean Water Act effluent and reporting guidelines	<b>3.75/3.75</b>
<b>4: Safe Stormwater Management</b>	Comply with all NPDES permit requirements for municipal separate storm sewer systems, construction activities, and regulated industrial activities	<b>0/3.75 (based on qualitative assessment)</b>

**Table 9.** The specific evaluation measures and points assigned for the Built Environment STAR Goal Area's second objective, "Community Water Systems."

*\*There are two water providers in Apache Junction, the public Apache Junction Water Community Facilities District and the private water utility, Arizona Water Company. Information from the former might change this result, since according to a City staffer, this utility gets high marks for innovation, conservation, and recharge.*

## FINDINGS & RECOMMENDATIONS

In their research, students delved into Apache Junction's performance in their STAR Goal Areas — Built Environment; Climate and Energy; Economy and Jobs; Education, Arts and Community; Equity and Empowerment; Health and Safety; and Natural Systems. Results from this process are primarily specific to the Goal Area. However, there were common encounters across several Goal Areas. One was a **need for complete data sources that a diverse group of residents and other stakeholders can access**, beyond what is currently available. Another shared finding was that **Apache Junction needs to create specific goals and guidelines to improve the likelihood that the General Plan objectives will be implemented**. There were also strengths and strategic areas for improvement that stood out among these findings. (See Figure 10.)

### SUSTAINABILITY STRENGTHS OF APACHE JUNCTION

- Importance of community involvement and transparency in drafting the General Plan
- Adequate stormwater research and compliance
- Relatively safe transportation
- Natural resource assets such as the Superstition Mountains

### AREAS OF OPPORTUNITY FOR APACHE JUNCTION

- Economic development plans that leverage natural assets
- Local community college
- Retirement community

### AREAS FOR IMPROVEMENT FOR APACHE JUNCTION

- More transportation modes for residents
- Walkable communities with access to healthful foods and key community services
- More explicit social equity and empowerment initiatives
- The adoption of a climate change adaptation plan

*Figure 3. Through assessing Apache Junction's performance in seven STAR Goal Areas and then reviewing case studies, opportunities, strengths, and strategic areas for improvement were revealed. Those in this figure were highlighted by students from the more extensive findings to follow.*

Following the findings for each STAR Goal Area in this report are recommendations determined by those who worked on that area.

**Recommendations included:**

- 1. improving public information sources to make them more complete and readily accessible to diverse stakeholders and**
- 2. setting more specific, time-bound goals in the 2020 General Plan.**

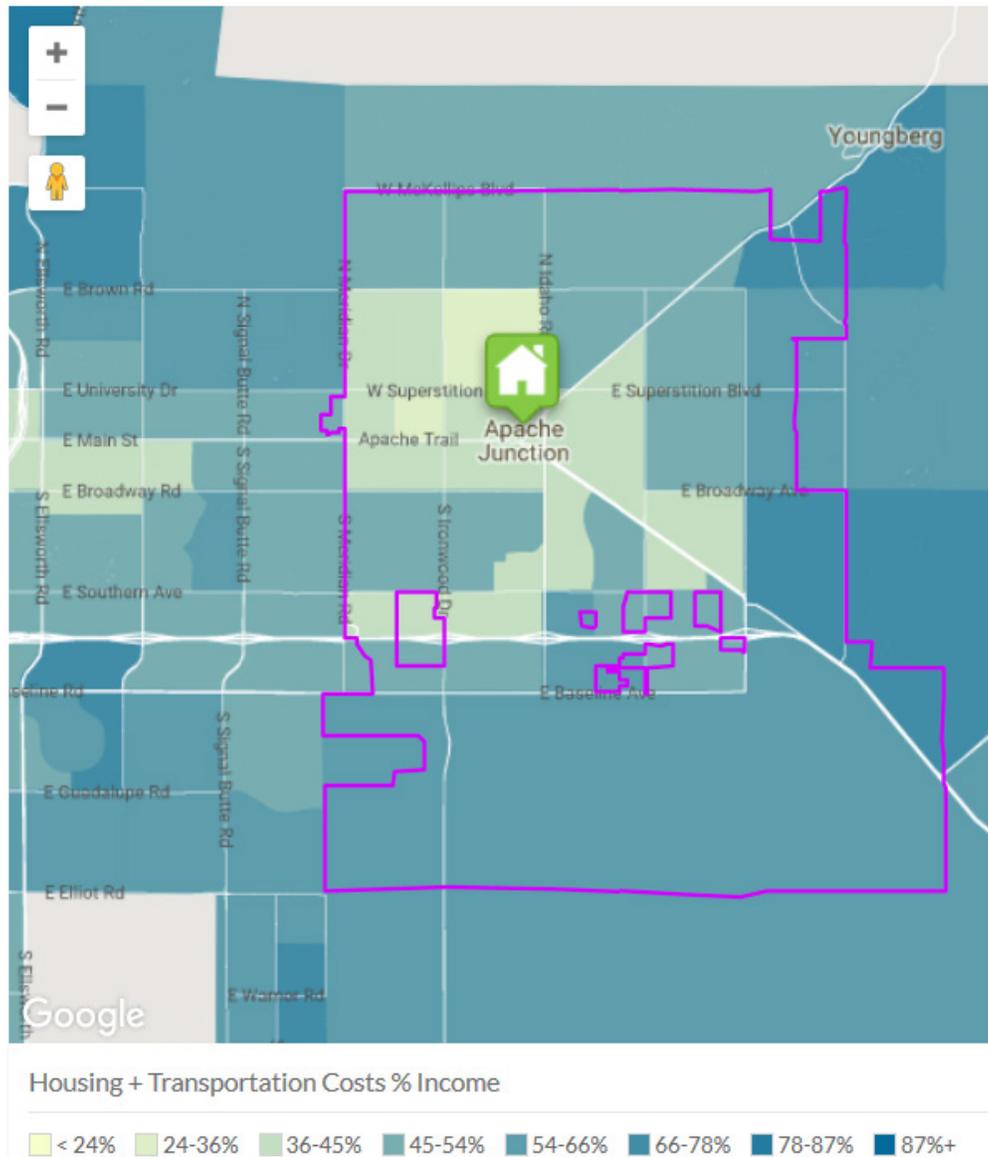
For the specific Goal Areas, the following recommendations come in two forms: general recommendations and specific recommendations for the city’s 2020 General Plan. A number of these recommendations are based on case studies or leading examples in communities similar to Apache Junction.

**The Built Environment**

This STAR Goal Area applies to Apache Junction’s design and development patterns, and emphasizes “...livability, choice, and access for all where people live, work, and play.”

The student group that studied the STAR Communities Built Environment Goal Area found that the main areas for improvement are: diversifying water supplies, creating placemaking guidelines, connecting with Metro Phoenix’s public transit system, and providing local public transportation access. **Apache Junction is doing well on drinking-water quality and safe wastewater management, but it has room to improve its water footprint (the amount of water it uses) and safe stormwater management.** (See Table 9 for scoring). Although the City has demonstrated concern over its unique stormwater challenges—being home to a major wash and flood zones—its stormwater practices do not match the depth of concern. For example, on an observational tour, students noted a wash through a privately owned residential lot was regraded across a public roadway (see page 8 of the full student report online). This example illustrates why the students did not award Apache Junction points for safe stormwater management.

*Five Leading Indicators of the Built Environment Goal Area:  
Drinking Water Quality  
Safe Wastewater Management  
Housing & Transportation Costs  
Transportation Mode Split  
Transportation Safety*



**Figure 4.** Housing plus transportation costs for Apache Junction residents as a percent of area median income (page 10 of student report).

The Infill and Redevelopment, or BE-5, indicator is focused on building on underdeveloped land in already developed areas and is intended to reduce sprawl while ensuring that infrastructure satisfactorily supports the community. In contrast to this objective, Apache Junction has larger average lot sizes that resulted from the original standards for residential development when the City was incorporated. It is also lacking medium- to high-density housing. However the City has shown interest in increasing density and decreasing sprawl through the use of tools like

a special zoning district for the downtown area and EPA grant funds for identifying infill development opportunities. It has had projects in its related redevelopment areas along Apache Trail. However, **Apache Junction has no specific record of whether its development has occurred in its designated infill zone or similar land** (like gray-field sites, which are underused, or failing real estate). Further, because the students were unable to acquire and analyze data such as an assets management report, they could not assess the City's infrastructure.\* According to STAR, if a city has no record or inventory of its infrastructure, it does not meet the indicator's requirements, even if efforts are being made, and therefore does not receive any points (page 13 of student report).

Another aspect of the Built Environment is transportation. **The STAR threshold for the percentage of the typical household income dedicated to transportation is 15%. According to the students, in Apache Junction, it is 24%.** Residents near area median

*The typical amount of household income dedicated to transportation in Apache Junction is 24%.*

income and below also spend a relatively large amount on housing according to students; together, this spending could make it difficult for younger or working-class households to improve their livelihoods. (See Figure 4.) Vehicle miles traveled per person per day were also slightly higher than the metropolitan average. Further, nearly 80% of Apache Junction's residents drive to work and have a longer commute than the national and metro Phoenix averages. Although these findings lowered Apache Junction's score in the transportation category, it did get full points for safety, since there were no traffic fatalities there from 2015 to 2016.

*\*According to City staff, Apache Junction has some, if not all, of this information, it is just not readily available or accessible in one report. The City likely has records of its road network because the Public Works department has a pavement rating system. The City also has a GIS layer of its sidewalk system and uses I-Works for repairing infrastructure like signs and lights. The Parks and Recreation department also has an inventory of its park assets. But all this information is not in one place. The City is currently looking at asset-management software to keep track of its infrastructure and maintenance.*

## Strengths & Weaknesses

Strengths	Weaknesses
Apache Junction has taken steps to ensure a safe, clean, and sustainable supply of water	Apache Junction lacks data in key areas regarding water and needs to seek more sustainable water supplies
The City's flood-control structures are deployed well	Little data could be found on water quality and usage of private wells
The City worked with the EPA to identify infill development opportunities	Little data exists about private septic systems
Special zoning districts and target areas for development to increase infill downtown are in place	Stormwater management procedures are inadequate for preventing problems
Opportunities for creating livable spaces and a vibrant town center are ample	Access to neighboring cities is limited due to lack of public transit and the city's general car-dependence hurts the affordability of the city for residents near and below area median income
There are many features that can be leveraged to provide connection between natural areas, commercial centers, and residential communities	Housing plus transportation costs are high for residents near and below area median income
	Inventory of public infrastructure and its condition is inconsistent and difficult to access
	Lack of infill development
	The form of the city and current land-use practices encourage outward sprawl rather than internal infill
	Having two main water utilities with different owners (which could make it difficult to determine water quality and condition of water infrastructure)

See page 14 of student report for more detail.



## **Recommendations**

According to the student team, the main opportunities for improvement in Apache Junction are diversifying its water supplies, creating placemaking guidelines, and focusing on local access and connectivity to Metro Phoenix public transit systems. (See page 16 of student report for further context of recommendations.)

### *General Recommendations*

1. Diversify water sources and manage all water sources and wastewater under a single system, rather than multiple systems. As an example, see the Town of Buckeye's 2007 General Plan, which recognized its reliance on groundwater, focused on groundwater recharge, diversified water supplies to make water use more sustainable, and aimed to connect diverse sources into a single water system.
2. Consider adding trails that connect natural resources to the downtown area, creating a sense of place while increasing multimodal transportation options. Flagstaff is a peer city with examples to follow.
3. Establish a cohesive inventory of infrastructure assets, which enables a city to be aware of its assets and their conditions.
4. Set aside money to maintain city infrastructure and ensure that it is continually improved. For an example, review the capital improvement plan of the City of Phoenix.
5. Begin planning how to connect to the Valley Metro Rail based on its extension plans.
6. For creative transportation planning on a tight budget, look to Curitiba, Brazil for inspiration. Its guiding principles emphasize an organic, flexible, user-oriented approach that recycles capital and assets.
7. Prioritize connectivity to the Valley Metro Light Rail system and other Metro Phoenix systems. New possibilities are smart shuttle start-ups like Bridj and Chariot, which are looking for City partnerships. These shuttles may provide the flexibility and adaptability needed when major projects are too great of an investment.
8. Enact a comprehensive transportation policy to support the development of a compact, complete, and affordable transportation system. Providing public transportation modes

could decrease the amount of household income dedicated to private transportation (which result from repairs and insurance as well as gas). It could also enable economic growth around the downtown area by encouraging residents from nearby towns to visit, a cycle that would support local jobs.

*Specific Recommendations for Apache Junction's 2020 General Plan Update*

- Introduce a water resource strategy that will implement new sources of water, increase reclamation efforts for irrigation and other uses, and create a single system to manage water within the city.
- Create stricter guidelines and enforcement procedures for stormwater permitting and related activity on private lands.
- Pursue a system to measure groundwater withdrawals on private land and quantify water supply being used in the city.
- Develop a placemaking strategy that incorporates culture and arts, guides mixed use development in downtown Apache Junction, and includes connectivity to natural resources and trails.
- Establish a cohesive asset management plan to inventory and assess the condition of infrastructure in the city.
- Develop plans for connecting to Metro Phoenix public transit.
- Develop a citywide vision to improve walkability based on walkability index maps available online. The most recognized is the EPA's National Walkability Index.
- Create a scheme, guidelines, and goals to help build connections between different transportation modes (walking, bicycling, driving, and riding public transit).
- Outline safety concerns, anticipated errors, and strategies for transitioning toward a multimodal transportation scheme.

## **Climate & Energy**

This STAR Goal Area aims to “reduce climate impacts and increase resource efficiency in order to create safer, healthier, and more resilient communities.”

The student focused on this STAR Goal Area found that Apache Junction’s 2010 General Plan Update contained a sustainable building policy and introduced a program to promote green-building principles and practices. In its zoning code, the City also adopted a green-building rating system for building standards that is mandatory for City buildings over 5,000 square feet and optional for all other City buildings. For commercial buildings, the City promotes the International Code Council’s 2015 International Energy Conservation Code. In addition, the City provides energy efficiency credits and rebate programs to help homeowners improve the environmental impacts of their homes. Other local organizations also offer weatherization improvements for income-eligible homeowners. Qualifying residents may also be able to receive services through Apache Junction’s Housing Rehabilitation Program to improve their home’s energy efficiency. Finally, the City’s electric utility, Salt River Project (SRP), also offers a variety of rebates (e.g., shade-screen rebates) and energy-efficiency information to its customers.

*Five Leading Indicators of the Climate & Energy Goal Area:*  
*Climate Adaption*  
*Vulnerability Assessment*  
*Greenhouse Gas Emissions*  
*Renewable Electrical Energy Supply*  
*Total Solid Waste*

Renewable energy generates from 4% to 7% of SRP’s retail energy. Compared to utilities regulated by the Arizona Corporation Commission renewable energy standard and tariff, SRP’s unregulated renewables performance is on par. However, **the nonrenewable segments of SRP’s energy sources are the source of a significant amount of Apache Junction’s carbon-dioxide emissions, a primary contributor to climate change.** The student that focused on this Goal Area estimated that the City generated about 23,500 metric tons of greenhouse gas (GHG) emissions through residential fuel use (electricity, natural gas, liquefied petroleum gas, fuel oil such as kerosene, and biomass) in one year, between 2015 and 2016. (This is a rough estimate based on external information as Apache Junction does not track carbon dioxide emissions.) **Economic damages from climate change are projected to severely impact the state**, including losses (calculated as a fraction of income) estimated at 8% annually in Maricopa County between 2080 and 2099.

## Strengths & Weaknesses

Strengths	Weaknesses
Apache Junction's 2010 General Plan Update suggested incentives for and education about green building	Lack of citywide climate change vulnerability assessment
2010 General Plan Update proposed developing and implementing an energy conservation policy plan	Lack of integrated climate-change adaptation action plan
The proposed water conservation plans of the 2010 General Plan Update such as water harvesting and xeriscape in new developments and redevelopments	Lack of data collected by City in areas related to energy data and greenhouse gas emissions
The proposal to conserve water in the 2010 General Plan Update by using renewable water supplies, landscape techniques, and groundwater recharge	Lack of information about how prepared public facilities are for climate change
	The City has not upgraded its infrastructure systems to increase water efficiency



### Recommendations

Because Apache Junction does not have a climate-change adaptation plan and has not monitored climate-change impacts, the following recommendations focus on this topic. Projected increases in future average temperatures, combined with the heat-intensifying aspects of hard surfaces like concrete in cities (i.e., the urban heat-island effect) are expected to negatively impact public health. In addition, these changes may affect electricity and water supplies and are expected to extend droughts, leading to more wildfires and other extreme weather events. (See page 24 of student report for further context of recommendations.)

### *General Recommendations*

1. Require GHG emissions data be collected and considered in local decision-making and planning, including future growth. The US Community Protocol for Accounting and Reporting Greenhouse Gas Emissions is a helpful tool.
2. Participate in a carbon climate registry to track and report climate targets and GHG emission reductions (as Apache Junction's peer cities of Flagstaff and Tucson do).
3. Identify citywide vulnerability to future changes in environmental norms, assess risks from those projected changes, and develop adaptation strategies. For example, Chicago used an "analog city analysis" to identify its most vulnerable residents and target heat-vulnerability outreach, green infrastructure, and heat-island mitigation.
4. Promote SRP's shade-tree program that supports customers in planting trees in energy-saving locations around their homes.
5. Develop a program for home landscape water audits to increase water efficiency through recommended technology. (For an example, see Tempe's program.)

### *Specific Recommendations for Apache Junction's 2020 General Plan Update*

- Create a performance-measurement system that tracks overall GHG emissions. Provide neighborhood-level data.
- Report progress toward environmental adaptation goals on an annual basis.
- Consider GHG reduction and mitigation strategies.
- Develop indicators that measure the community's preparedness for environmental threats, create goals for these indicators, and report findings and actions annually.
- Undertake building energy-use data collection to obtain accurate energy use information for commercial, residential, and other buildings. Ensure that data is transparent and accessible to residents.
- Develop a home landscape water audit program to increase water efficiency.
- Support community-driven environmental action and response efforts and create a related neighborhood network.

## Economy and Jobs

The aim of this STAR Goal Area is to “work together to promote equitably shared prosperity and access to quality jobs.”

The four Leading STAR Indicators for this Goal Area are businesses, employment, median household income, and living wages. In 2015, according to the US Census Bureau, Apache Junction had 851 businesses and 9,370 employees. Statistics indicate **21% of the city’s employment was concentrated in educational services, health care, and social assistance, followed by retail trade at 16%. Overall, 10.9% of Apache Junction’s 14,050 people in the labor force are unemployed**, higher than Pinal (9.4%) and Maricopa (6.8%) counties (see Table 10). Further, certain age cohorts are facing higher unemployment rates than those in the counties. With high unemployment rates come financial and social costs that stress individuals and the larger community (page 46 of student report).

*The Four Leading Indicators of the Economy & Jobs Goal Area:*  
*Businesses*  
*Employment*  
*Median Household Income*  
*Living Wages*

### **APACHE JUNCTION EMPLOYMENT AND UNEMPLOYMENT RATES IN 2016**

Employment Status	Apache Junction	Maricopa County	Pinal County
Population 16 and Over	31,798	3,178,431	311,567
In Labor Force	14,050	2,012,129	155,847
Total Unemployment Rate	10.9%	6.8%	9.4%
Unemployment Rate by Age Cohort			
20 - 24	18.2%	10.4%	17.6%
30 - 34	13.2%	6.3%	11.0%
35 - 44	10.1%	4.9%	7.1%
45 - 54	15.1%	5.0%	7.4%

**Table 10.** Employment and unemployment rates in Apache Junction in 2016, sourced from the U.S. Census Bureau (page 42 of student report).

Of Apache Junction's 16,625 households, the median household income is \$38,053, which represents 68% of Maricopa County's median household income and 74% of Pinal County's. **Households with the lowest median household incomes are concentrated in the center of the city, while high-income households are found on the outskirts.** Although the city has a comparatively low-median household income, **in 2016, 82.9% of Apache Junction households earn more than the average annual living wage** according to the Massachusetts Institute of Technology (MIT) Living Wages calculator. (According to the STAR Indicator, the living wage is the minimum income necessary to meet housing needs, food, clothing, and utilities.)

**Strengths & Weaknesses**

Strengths	Weaknesses
Employment by industry	Higher unemployment rate compared to the two counties of which it is part
Apache Junction's General Plan emphasizes quality employment and job market diversification	The effects of the high unemployment rate such as reducing goods and services spending and decreasing volunteerism (page 46, student report)
The City's diverse and impactful economic goals	Low median household income in comparison to its two counties
A high percentage of the households earn a living wage	A concentration of low-income households in city-center neighborhoods causes instability for downtown business owners and diminishes development incentive
	The 2010 General Plan Update lacks specific target dates or actions associated with strategies and objectives such as identifying potential resort and tourist locations along north Highway 88



## **Recommendations**

The students' recommendations suggest using Apache Junction's current assets to spark economic development and support community inclusivity. These assets include Central Arizona College (CAC) (see Figure 5), retirees living in Apache Junction, and the natural landscape. According to the student team, each recommendation proposed will need community partnerships, a strategy with a timeline and target of completion, and guiding policies to ensure successful implementation. (See page 46 of student report for further context of recommendations.)



**Figure 5.** Central Arizona College. (Photo via the college's website.)

### *General Recommendations*

1. Envision and invest in CAC as an anchor institution to support residents and local businesses and built community identity (p 47). (See Figure 6 for how the peer city of Brevard, North Carolina embraced its anchor institutions to support the local economy in its General Plan.)
2. Make CAC the hub for skill-building opportunities for local employees, workforce trainings, and youth and senior citizen activities, allowing for new types of networking and can result in a more cohesive community identity. One example is the summer sports camps for local youth at Beville State College in Alabama,

which strengthens community and exposes kids to the idea of college.

3. Encourage CAC to increase spending with local suppliers, as exemplified by the University of Pennsylvania's "Buy West Philadelphia program" aimed at spurring local economic growth.
4. The benefit to the college would be proximity, which facilitates shorter turnaround times for orders and reduced transportation costs.
5. Provide mentorship, guidance, and strong support networks for local businesses by encouraging CAC to offer consulting service and networking opportunities.
6. Engage retirees in sharing their knowledge with and providing services for local businesses. For example, the City of Brevard in North Carolina created a Retiree Resource Network of more than 65 retired business people who provided top-quality consulting and advising services to businesses in Transylvania County free of charge.
7. Make downtown Apache Junction the epicenter of tourist activities by connecting it to the natural landscape and vast

## **BREVARD GENERAL PLAN OBJECTIVES**

**Objective 2.3:** Retention and expansion of institutions, programs, and services that expand the knowledge, skills, and abilities of our citizens.

**Policy 2.3.A:** Advocate for the retention and expansion of the existing small-business incubator at Blue Ridge Community College.

**Policy 2.3.B:** Support the establishment of an arts-based business incubator within the city.

**Policy 2.3.C:** Engage schools, colleges, and area non-profit entrepreneurial support services to explore ways in which the city can assist in their efforts to foster entrepreneurialism and develop an adaptable and technologically proficient workforce.

**Policy 2.3.D:** Support Brevard College as a year-round community asset and resource.

*Figure 6. The Brevard General Plan objectives for using its institutions as a space to expand the knowledge, skills, and abilities of students and the community (page 49 of student report).*

open space that surrounds it. To do so, partner with local businesses, nonprofits, or volunteer-led community development organizations to connect the downtown to trails and recreation activities. For example, to boost tourism in Chimney Rock, North Carolina, the City worked with a volunteer-led community development association—which improved its ability to secure grant funding—to showcase its natural resources by improving the appearance of its downtown buildings and revitalizing a riverside walkway (page 49 of student report).

*Specific Recommendations for Apache Junction's 2020 General Plan Update*

- Use the community college, retirees, and natural environment for economic development strategy.
- Create specific plans that lay the foundation for targets and strategies and complement the 2020 General Plan Update. The specific strategies should have year of completion, target dates, and the roles of relevant stakeholders.
- Include strategies for how to create community engagement and partnerships, as community inclusion is vital for implementing and funding plans.

**Education, Arts, and Community**

The intention of this STAR Goal Area is to “promote an educated, cohesive, and socially connected community.”

According to STAR, education is a Leading Indicator of a city’s economy. A quality education ensures more stable futures for children who in turn contribute to society.

**To be sustainable, a city should ensure equal access to education and community services.** The two STAR Leading Indicators related to education are high school graduation rate, graduate rate equity, and third-grade reading proficiency. Unable to locate data on Apache Junction’s third-grade reading proficiency, the student who researched the Goal Area focused on the graduation rate for the population, which is readily available from the U.S. Census Bureau. Ideally the STAR indicator would be a cohort graduation rate.

***The Three Leading Indicators of the Education, Arts, & Community Goal Area:***  
*Third Grade Reading Proficiency*  
*High School Graduation Rate*  
*Graduation Rate Equity*

## APACHE JUNCTION'S PARKS AND RECREATION DEPARTMENT ARTS AND CULTURE EVENTS

Lost Dutchman Days  
 Concerts in the Park  
 Halloween Festival  
 Holiday Program & Light Parade  
 Superstition Sleepover

**Figure 7.** Arts and culture opportunities in Apache Junction.

As for community, according to the STAR Community Rating System™, at least 75% of residents should live within one mile of a community venue that is open to the public and offers free services and/or events. Only 20% of the residential area of Apache Junction is located within a mile of its Multi-Generational Center. This indicates more such venues are needed. However, the City does provide arts and culture opportunities (see Figure 7). Further, examples of encouraging community cohesion can be found in the City's 2010 General Plan Update, such as the Update on TV Channel 11 and its Citizen Leadership Institute (page 61 of student report).

### Strengths & Weaknesses

Strengths	Weaknesses
Equal educational opportunities for female and male high school students	Room to improve high school graduation rates among the population
Abundant special arts and culture events for residents of all ages	No arts programs that support local artists or arts education
Adequate programs that support community cohesion	Unclear consideration of the public participation of minorities such as non-English speakers, based on the unavailability of documents in different languages on the City's website
A large community venue	



## **Recommendations**

The recommendations of the student who researched this goal are focused on improving the school system (which in Apache Junction's case is separate from City government), increasing creative opportunities in the city, and strengthening access for minorities. (See page 63 of student report for further context of recommendations.)

### *General Recommendations*

1. Encourage the Apache Junction Unified School District to prepare annual progress reports for the public on its performance, which are useful for both parents and schools (e.g., the annual progress report of Fort Dodge Community School District in Iowa).
2. Support offering multiple pathways to graduation for students to improve educational outcomes, which could be district- or community-based (e.g., Multiple Pathways to Graduation Mission of Portland Public Schools).
3. Provide funding or other resources to local Head Start programs.
4. Work with public school districts to offer special arts education programs that align with a core curriculum, especially early elementary grades.
5. Collaborate with private, nonprofit, or regional organizations to increase access and participation in the arts.
6. Adopt a strategic plan intended to enhance the community's arts and cultural resources and strengthen creative industries (e.g., the City of North Las Vegas's specific and practical goals in its 2018-2020 Arts and Cultural Strategic Plan, which included two exhibitions in the City Hall, two or more artist residency community projects, and bus tours to cultural sites).
7. Hire local artists to create public artwork, sculptures, or performances.
8. Adopt neighborhood plans that guide future development, recommend strategies to create or preserve community venues, and address neighborhood-specific issues.
9. Make information about community issues, programs, services, and activities accessible to non-English speaking residents.
10. Provide programs that support the development of youth leaders, particularly in low-income and minority neighborhoods.

*Specific Recommendations for Apache Junction's 2020 General Plan Update*

- Establish education funding to support students from low-income households in graduating from high school.
- Set a goal of improving the high school graduation rate.
- Establish an art education program to provide residents, especially youth, with marketable skills. This could help Apache Junction offer new arts programs and improve its graduation rate. For example, Chicago's Gallery37 program improves high school graduation rates, expands arts and design workforce, and offers public performances.
- Interact with local artists and nonprofits to enhance and promote the Old West characteristic of Apache Junction through arts programming.
- Include a community cohesion plan to enhance public participation.

## **Equity and Empowerment**

While other STAR Goal Areas and objectives address equity and empowerment—such as housing and transportation, education, and climate change vulnerability—this

goal focuses exclusively on promoting “equity, inclusion, and access to opportunity and community resources for all community members.” To be a sustainable city, all residents need to be afforded the same opportunities and fair treatment.

***The Three Leading Indicators of the Equity & Empowerment Goal Area:  
Environmental Justice, Risk & Exposure  
Equitable Access  
Proximity to Foundational Community Assets***

For one indicator of this Goal Area, Environmental Justice, the student used the EPA resource EJSCREEN, a screening and mapping tool, to determine Apache Junction's population percentile for environmental indicators including ozone, cancer risk, traffic proximity, lead paint, hazardous waste, and wastewater discharge. **In eight of EJSCREEN's eleven indicators, Apache Junction was over the 25th percentile.** This means that residents have equal or higher risk of or proximity to

the environmental hazard than 25% of the US population. The city was over the 25th percentile for the Indicators of NATA Respiratory Hazard Index, Traffic Proximity, Superfund Proximity, Hazardous Waste Proximity; **it was over the 75th percentile (the most-worrisome indicators) for ozone, National Air Toxics Assessment (NATA) Cancer Risk, Wastewater Discharge, and NATA Diesel Particulate Matter.** The city was under the 25th percentile for Fine Particulate Matter (PM 2.5), Lead Paint Indicator, and proximity to Risk Management Plan facilities.

These results indicate potential environmental-quality issues for Apache Junction. Further, if residents affected by them are disproportionately minorities or poor, this indicates environmental justice issues in the city. Often residents are not at fault for such exposure, or may not even know they are vulnerable to pollutants when buying a home or signing a lease. For example, many Apache Junction residents live in a flood plain, which makes it more likely they might have to deal with hazards presented by stagnant water such as dangerous bacteria. Although some residents have complained to the City about flooding issues, others may not know they exist when agreeing to buy or rent a home in a certain area. Further, the City's challenge of residential trash accumulation increases risk of injury and may deter children from wanting to spend time at home, resulting in an increase of other social problems. Finally, the proximity of its neighborhoods to roadways with high traffic results in increased diesel particulate matter (and other harmful airborne particulates) that could induce or worsen asthma. If potential or current residents do not know about this risk, they are unable to make informed decisions. If these neighborhoods are disproportionately older and/or poorer, they are at greater risk, as they have fewer resources to cope with hazards. Young children are also particularly vulnerable.

*The most worrisome environmental indicators for Apache Junction are ozone, NATA Cancer Risk, Wastewater Discharge, and NATA Diesel Particulate Matter.*

When it comes to public facilities, Apache Junction does have resources that engage its population and encourage community participation. However, these are located in a main hub in the northeastern section of the City further from most of the community and restricting access to those with limited transportation options. (The facilities include a community center, city hall, post office, park, library, police station, food pantry, and more.) Other facilities such as the aquatic centers on the southern side of the city may be insufficient to provide for the all of the

surrounding community's needs. Apache Junction has a good distribution of fire stations. However, it has only one police station, which increases response times for certain areas of the city and may raise safety concerns among residents.

According to the student in charge of this Goal Area, there are other important indicators of equity beyond what STAR covers, including the empowerment of women and stakeholder engagement. Apache Junction does have community resources for women in need such as a rehabilitation center, a domestic violence center, and a center for pregnant and parenting women. However, **Apache Junction has a higher than average number of single mothers and teenager mothers than the state of Arizona. These women may have to make sacrifices that hurt their future financial success if they are not adequately supported.** As for encouraging stakeholders to be engaged in meetings and decision-making, while Apache Junction acknowledges that it is important to make efforts to ensure representation and participation reflect the diversity of the City, it could strengthen its efforts to do so.

### *Strengths & Weaknesses*

Strengths	Weaknesses
The discussion of public involvement and transparency in plan-making put forth in Apache Junction's 2010 General Plan	No mention of how to execute the inclusion of minority populations or engage community in public meetings
Plans to increase public facilities	No focus on putting new public facilities in disadvantaged communities
Plans to ensure better public health related to air, water, and waste pollution	Lack of focus on cleaning up areas that put certain communities at risk of negative environmental effects and their health consequences
	No mention in Apache Junction 2010 General Plan of ways to improve the lives of women or include them in decision-making



## Recommendations

The student who focused on this area indicated that some Apache Junction residents are at risk of being exposed to health hazards. Further, while public participation is desired by Apache Junction, it is unclear how the City intends to promote it. Accordingly, the student's recommendations focus on rectifying these findings. (See page 75 of student report for further context of recommendations.)

### General Recommendations

1. Educate residents about neighborhood hazards that they may be exposed to and what is causing them, such as waste storage. One way to do so could be the distribution of fliers.
2. Determine the neighborhoods that lack resources and reliable transportation, and then increase community resources and assets there.
3. To increase participation in City Council meetings, target disadvantaged communities and see what they need to be a part of decision-making, which may include holding meetings outside of normal business hours or offering onsite daycare.
4. Encourage City officials to visit homes and talk with residents, which will demonstrate that the officials care about their opinions and may increase public participation.

## Health and Safety

This STAR Goal Area encourages “proactive efforts to prevent disease, injury, and premature death by fortifying protective factors and reducing risk factors that undermine healthy outcomes.” Achieving this goal will help ensure a healthy, safe, and resilient

community. According to the student researchers, there are many health services offered to Apache Junction residents, but these facilities are all located around Apache Trail. **Residents in the more distant parts of the city therefore may not have adequate access to services** (page 78 of student report). Further, according to a U.S. Census five-year estimate, 13.4% of the population lacks health insurance. The City may want to look into what groups in the city are at risk of low access to medical care, whether this is due to not having health insurance or proximity to facilities. This will indicate what medical services the City should prioritize.

*The Three Leading Indicators of the Health & Safety Goal Area:  
Food Security and Assistance  
Access to Healthful Food  
Violent Crime Rate*

Apache Junction has a number of nonprofits that encourage healthy lifestyles, but few city parks and recreational facilities\*. Further, its outreach program provides information on local and state resources, but does not have any goals about health research and education. Although the City could become a leader in health provision, it is prevented from doing so due to a lack of formal research on at-risk groups, citywide health goals, as well as limited parks and recreational facilities.

The Health and Safety Goal Area also includes food security and access to healthful foods. (STAR uses the term healthful, which indicates creating good health, rather than being healthy in itself.) In 2015, 14.7% of Pinal County residents were food insecure, lower than Arizona's percentage. However, **the rate for food insecurity for children in the County was 24%**. Of that number, 74% were likely eligible for federal nutrition programs. In 2015, 53.7% of children were living in households that received Supplemental Security Income, cash public



**Figure 8, 9.** The map on the left highlights low-income areas who are further than one mile from a grocery store, or further than 10 miles if they live in a rural area of Apache Junction. On the right are areas that may lack the transportation to access healthful foods (page 83 of student report).

*\*According to a City staffer, while there are few neighborhood-level parks, the City's intention is to focus on community-level parks. This is reflected in a number of private parks, small parks for children in subdivisions, and parks and golf courses associated with mobile home parks. Further, the Boys and Girls Club has a ball field, and the City partners with the school district for use of school facilities. If these outlets were taken into consideration, results may have been different.*

assistance income, or food stamp/SNAP benefits.

As for access to healthful foods, this is a matter of proximity and of economic and physical access to stores that carry them. Most of the city's food stores and restaurants are located along Apache Trail. **According to the U.S. Department of Agriculture Food Access Research Atlas, as of 2015, most of Apache Junction is a food desert**, meaning a large percentage of its population lived a mile or more from grocery stores (see Figure 8). Grocery store locations more than a mile away make it difficult for those who do not have a car to get healthful food (see Figure 9). If Apache Junction neighborhoods become denser, the demand for grocery stores in those areas will intensify, which could resolve this issue. In the meantime, **there are other ways Apache Junction could provide better access to food—from “pop-up” stores to moving markets** (page 89 of student report).

As for the violent-crime indicator of safety in Apache Junction, students determined that **the city was below the established STAR thresholds for all four evaluation measures of homicide rate, aggravated assault, rape, and property crime.** (See page 90 of student report.)

In terms of emergency management and response, the City only met one of three thresholds. Although the fire and medical district received an appropriate classification from the Insurance Services Office (ISO), the police department is not accredited by the Commission on Accreditation for Law Enforcement Agencies (CALEA), nor is Arizona, and therefore Apache Junction is not accredited by the Emergency Management Accreditation Program (EMAP).

*Apache Junction has three high-vulnerability risk profiles for potential emergencies: flooding, severe wind, and drought.*

**When it comes to potential emergencies in Apache Junction, it has three high vulnerability risk profiles: flooding, severe wind, and drought.** Several homes are located in the 1% chance annual flood hazard area because they are close to Weekes Wash. While two Maricopa County Flood Control District structures help reduce flooding hazards, a large number of the city's homes, businesses, and infrastructure are located in FEMA-mapped flood hazard areas. **Apache Junction also has a high number of manufactured and older homes that are susceptible to damage from high winds.** Although the City's 2010 General Plan Update does not have a section on hazard mitigation, it does address flooding and stormwater management in other sections, and is part of the Pinal County Multi-Jurisdictional Hazard Mitigation Plan 2016.

## Strengths & Weaknesses

Strengths	Weaknesses
Nonprofits that offer education and outreach for residents to learn how to have healthier, safer lives	Services, stores, and amenities concentrated along Apache Trail
Alignment of goals in the Apache Junction police department's strategic plan with the STAR Community Rating System™ for action	Most of the city is a food desert
	Lack of health goals in the 2010 General Plan Update
	No comprehensive study on health amenities needed or wanted by residents
	No law enforcement strategies that address the safety goals in the City's 2010 General Plan Update



## Recommendations

(See page 97 of student report for further context of recommendations.)

### General Recommendations

1. Consider employing pop-up food markets to increase access to healthful foods at a discounted price. This type of market also fosters a cohesive community and promote healthy eating and lifestyles.
2. Add the performance of ongoing data collection, evaluation, and monitoring to track trends and identify emerging community needs to the Apache Junction Police Department Strategic Plan.

*Specific Recommendations for Apache Junction's 2020 General Plan Update*

- Increase residential density around Apache Trail, which will help bring more residents closer to health facilities and grocery stores.
- Support the establishment of neighborhood nodes in the more rural residential parts of the city to allow for sustainable development and decrease reliance on stores and facilities along Apache Trail. Aim for these nodes to have grocery stores that offer healthful food to reduce food deserts.
- Increase education and outreach for health and safety training to help the City determine what its related goals should be for its 2020 plan update and how it can plan to achieve them.
- Incorporate law-enforcement policies, as Apache Junction's General Plan has no policies or strategic goals addressing law enforcement. For example, see the General Plan Envision Glendale 2040, which includes a goal to provide police education and assistance for community policing efforts, such as staff Block Watch programs, which adequately assign police officers as liaisons for specific neighborhoods. These types of policies could help align the police department with the City and the public.

### **Natural Systems**

This STAR Goal Area is “intended to help communities protect and restore the places that provide resources to support life.” Its approach recognizes the wide-ranging benefits of ecosystems, including food, water, natural regulation of climate and floods, and even cultural benefits like recreation.

*The One Leading Indicators of the Natural Systems Goal Area:  
Designated Green Infrastructure*

According to the student researchers, **Apache Junction's 2010 General Plan acknowledges the importance of natural systems.** Natural systems are interconnected networks of waterways,

wetlands, woodlands, wildlife habitats, and protected lands. However, the City's General Plan does not outline how it intends to preserve the environment. **While Apache Junction has established an implementation action plan for the areas of environment and energy, the students could not find progress reports for the proposed programs, nor has a department been assigned to enact education efforts.**

As for how Apache Junction measures up in terms of a Goal Indicator, **at least 62% of the available land in the city is undeveloped, which is well above the 35% recommended by STAR Communities.** The largest amount of these areas

are along the northern, southern, and eastern borders. It also has 2,142 acres of urban natural areas such as parks and recreational areas, which make up 9.6% of the City. According to the Central

Arizona Conservation Alliance (CAZCA) and the U.S. Fish and Wildlife Service, **there are many valuable water resources including**

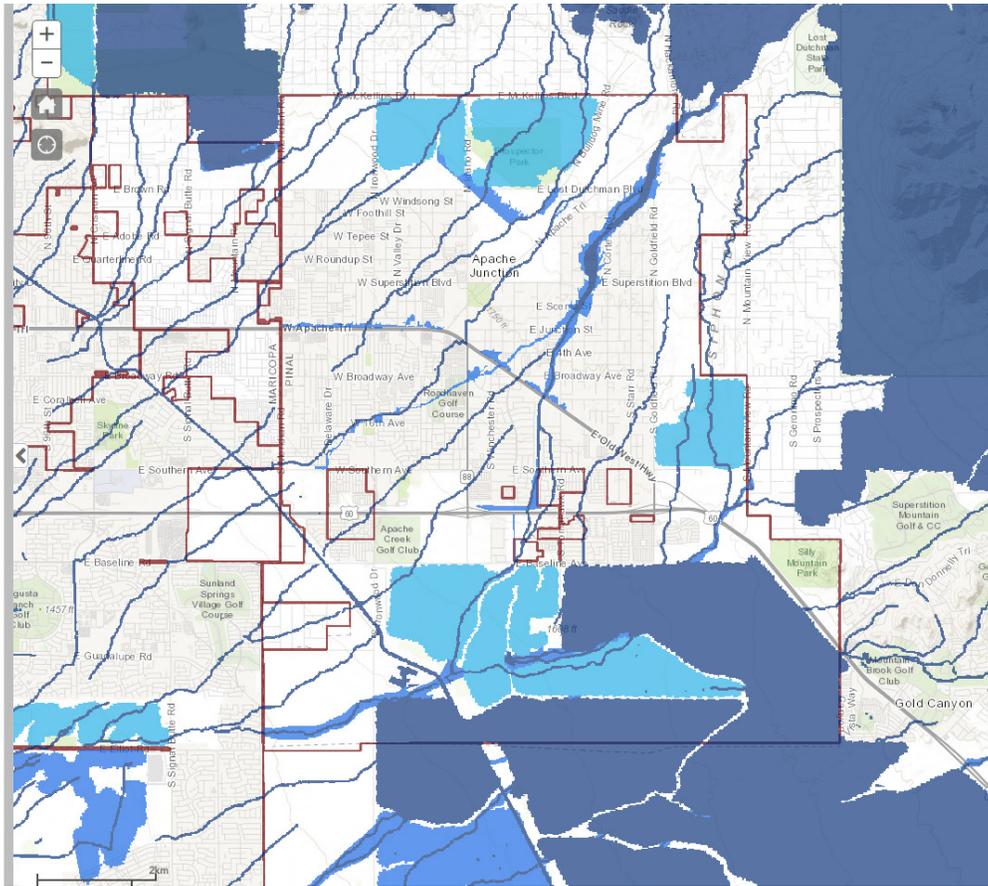
**wetlands, waterbodies, watersheds, and floodplains in Apache Junction—totaling 8,933 acres or 40% of the city area—that need to be considered in decisions about development** (see

Figure 10). If these patterns are disturbed, it could result in problems for development or new residents, as well as for the natural ecosystems.

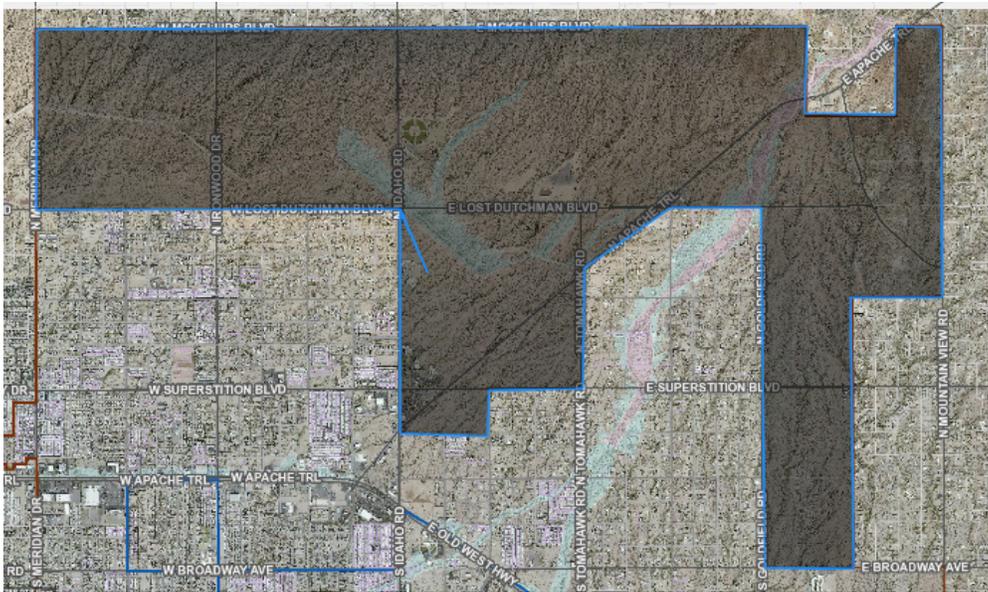
Apache Junction also has more than 14 identified wetlands that serve as natural paths and destinations for rain water runoff from the Superstition Mountains. But in Apache Junction, most of the undeveloped City land has no protected status and could be developed (see Figure 11). **The**

**development of natural land can fragment open spaces and deteriorate water resources.** Without ongoing assessment or steps for considering watershed distribution and stormwater usage, Apache Junction's natural systems could be unintentionally compromised or lost entirely.

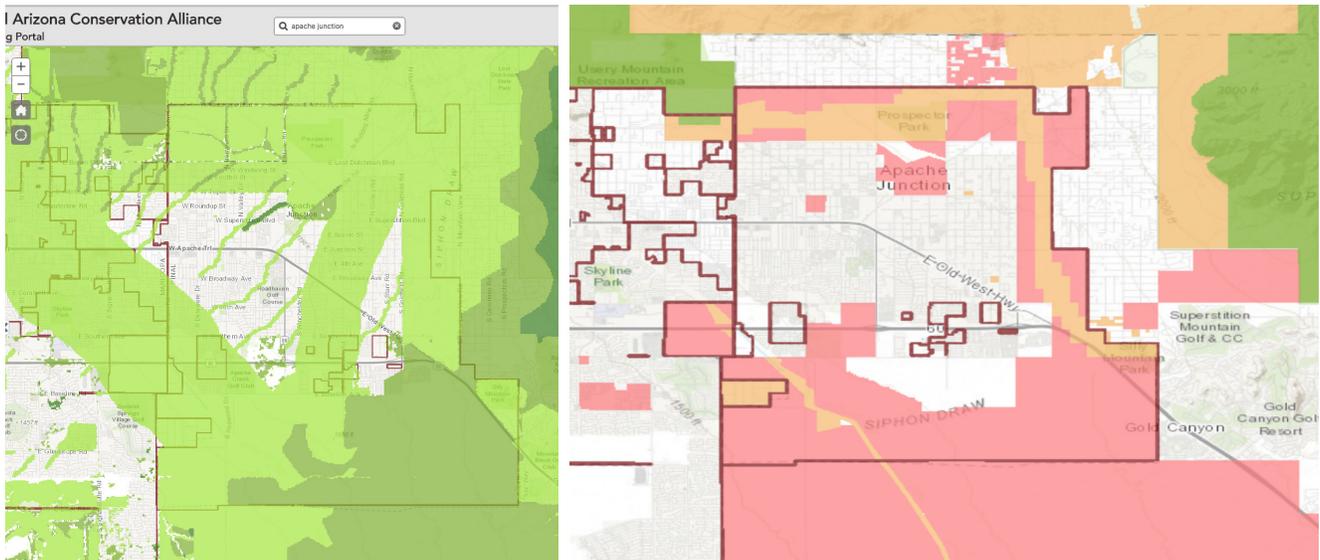
*Natural systems are interconnected networks of waterways, wetlands, woodlands, wildlife habitats, and protected lands.*



**Figure 10.** The CACZA hydrography of Apache Junction reveals water resources associated with 8,933.2 acres in Apache Junction.



**Figure 11.** Green space in Apache Junction totaling 13,796.5 acres, found using Apache Junction's GIS.



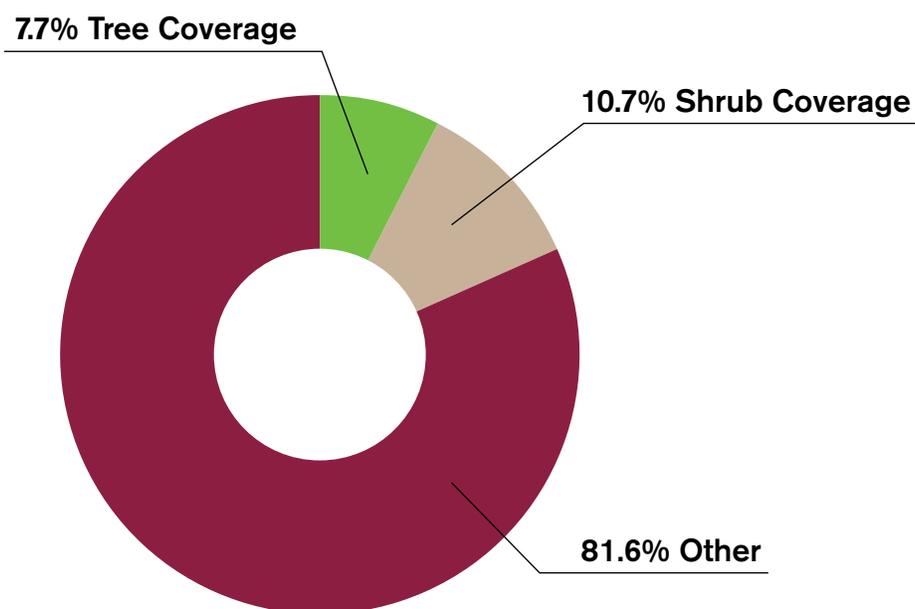
**Figures 12 and 13.** On the left, the 8,246.6 acres of Apache Junction necessary to ensure habitat integrity according to CAZCA. On the right, the undeveloped land that has no protection status (red) and could be developed in the future, as well as connected trails that are protected (orange) and provide a natural corridor for human hikers and biodiversity.

About 53% of the land in the city is owned by other agencies, largely the Bureau of Land Management (BLM) or Trust Land managed by the Arizona State Land Department. The state and federal government own most of the valuable habitat areas and water resources. **There are significant water resource areas that run diagonally through the city and state land that should be considered when new infrastructure and developments are being built** (including if the City annexes state land for development). Further, 18,246.6 acres of the city are needed to ensure all types of habitat integrity (see Figures 12 and 13). According to the students, it is essential to preserve the undeveloped areas to support the city's ecological integrity, which in turn promotes the physical and mental health of residents. **Greenspaces preserve biodiversity, generate oxygen, remove dust and pollutants from the air, mitigate noise, cool temperatures, replenish groundwater, and provide many other ecosystem services.**

Green infrastructure is a tool that can be used to preserve greenspace and ecosystems while reducing energy consumption or water waste. Green infrastructure can be made of natural, semi-natural, and artificial networks of ecological systems including parks, reserves, trails, greenways, community gardens, streets, and waterways.

As it stands, in Apache Junction, **tree coverage is largely located in the western region of the city; the rest shows little to no such coverage.** (See Figure 14 for the percentages of tree coverage in Apache Junction). Trees can help cool city temperatures, reduce water runoff and air pollution, and offer residents respite.

### APACHE JUNCTION COVER ASSESSMENT



**Figure 14.** The amount of types of coverage in Apache Junction according to *i-Tree*, a software suite provided by the U.S. Department of Agriculture. “Non-tree coverage” includes anything that is not tree canopy, which could be rocks, impervious surface, bare ground, etc.

## Strengths & Weaknesses

Strengths	Weaknesses
Many valuable natural resources	Lack of active protection of natural resources
Large amount of undeveloped land	Low percentage of land with tree cover
Many recreational assets including trails	Lack of prioritization of the natural environment in future building development
Willingness to look for new ideas	No natural resources information on the Apache Junction website
	No partnerships with local jurisdictions to create a coherent plan for maintaining and using natural resources
	Lack of implementation strategies to reach current goals
	Lack of reporting systems to demonstrate progress in preserving natural resources



## Recommendations

Although the student team found that the General Plan 2010 Update acknowledges the importance of natural systems, they indicated that it fails to outline specific actions to preserve the environment. Therefore, recommendations focus on generating such actions. (See page 114 of student report for further context of recommendations.)

### General Recommendations

1. Partner with state and federal landowners to solidify long-term preservation of wildlife corridors.
2. Partner with Central Arizona Conservation Alliance (CAZCA) to integrate natural system information into the Apache Junction Geographic Information System (GIS).

3. Partner with BLM and the state government to transform BLM and State Trust Land around Apache Junction into a preserve connected to Utery Mountain Recreational Area trail system.
4. Partner with schools to further public education about enhancing natural resources (e.g., in Portland 15 neighborhoods participated in workshops on maintaining trees).
5. Use the trail connectivity plan presented by ASU students to Apache Junction in May 2016 to increase recreational usage of natural lands and maintain natural resources.
6. Participate in regional collaboration such as a county-wide committee that works on local standards and specifications for minimizing stormwater pollution.
7. Collaborate with CAZCA to inventory, assess, and survey Apache Junction's natural resources, and then adjust development policy and building codes to maintain natural resources.
8. Create promotion cards to showcase and solicit homebuilders or commercial developers to participate in Apache Junction's green building programs.
9. Introduce a tiered pricing system that increases development costs outward from the city center.
10. Create incentive programs to encourage landowners to adopt green infrastructure that links to broader green infrastructure systems.
11. Upgrade public spaces and buildings based upon locally adopted or recognized best practices in green infrastructure and create demonstration projects to enhance public support.
12. For development, use a Green Infrastructure Spatial Planning model that employs the six criteria of stormwater management, social vulnerability, greenspace, air quality, urban heat island amelioration, and landscape connectivity.
13. Dedicate a percentage of funding to green infrastructure.
14. Become a STAR Communities member and use its rating system for development.
15. Adopt STAR suggested actions for the preservation and development of lands, including educating the community about the importance of natural resources beyond scenery or economic impacts.
16. Use nature-based design solutions to ensure ecosystem functions are protected, restore the functionality of degraded systems, help mitigate and adapt to climate change, and improve risk management. Benefits include carbon storage and pollution reduction.

*Specific Recommendations for Apache Junction's 2020 General Plan Update*

- Prioritize open space and the environment. (See Figure 15 for how the Town of Queen Creek did this in its General Plan.)
- Add green street infrastructure implementation intended to capture and naturally disperse rainwater.
- Outline societal, economic, and environmental benefits of urban compactness.
- Encourage development in the downtown area by enhancing the financial benefits.
- Adopt a tree ordinance like that of Scottsdale, which uses the following Tree City USA guidelines: “A community must adopt a tree ordinance; appoint a board, department or commission to advise the city on urban forest issues; spend at least \$2 per capita on community forestry activities; and hold an Arbor Day celebration.”

**INTEGRATION OF ENVIRONMENT INTO QUEEN CREEK'S GENERAL PLAN**

**Recreation, Parks, & Open Space Element**

Goal 1: Develop a comprehensive park system to provide open spaces and recreation opportunities appropriate to a community the size of Queen Creek.

**Environmental Element**

Goal 3: Prevent pollution of the Queen Creek and Sonoqui washes and groundwater system.

Goal 4: Promote environmental sensitivity in the built environment. Goal 5: Maintain the desert character and environment in the San Tan Foothills

**Figure 15.** *How Queen Creek prioritized open space and the environment in its General Plan.*

Although student recommendations may be useful to the City, they will require some discretion. It is up to Apache Junction to determine which recommendations align best with its community, values, and vision. These suggestions may also serve as starting points for concrete plans that will make the city more sustainable. For details about how the recommendations were reached, consult the student report, which can be found online.

## **CONCLUSION**

Apache Junction is looking ahead to a sustainable future for the City and its residents. In their research and assessments, students suggested a number of areas ripe for improvement. For example, residents spend too much of their income on transportation and may lack adequate access to healthful food. Further, while the City is rich in natural resources and assets, and holds sufficient undeveloped land according to the STAR framework, Apache Junction will have to think carefully about its development to ensure it does not increase inequality or disrupt the very nature it celebrates and that attracts many of its residents and visitors. Students also recognized that Apache Junction has the drive and potential to achieve this vision, and they generated recommendations to help the City put this desire for sustainable solutions into action. These recommendations included developing economic development plans that leverage natural assets, the local community college, and retirement community; a more multi-modal transportation system and public transit; promoting complete and walkable communities with access to healthful foods and key community services; outlining more definitive equity and empowerment initiatives; and developing a climate adaptation plan. Indeed, the students created a comprehensive report that should be consulted for further information and insight. Ultimately, Apache Junction has the capacity to map its way toward a more sustainable future.

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# FINDING NEW REVENUE SOURCES

A SPRING 2018 COLLABORATIVE REPORT OF  
ARIZONA STATE UNIVERSITY'S PROJECT CITIES  
& THE CITY OF APACHE JUNCTION



***The following report summarizes and draws highlights from work done by students in course PAF 509: Public Affairs Capstone for the Spring 2018 partnership between ASU's Project Cities and the City of Apache Junction.***

*Find the final individual capstone reports generated by students in PAF 509 at [projectcities.asu.edu](http://projectcities.asu.edu). They are available under the project on the page "2017-2018 Partner: City of Apache Junction" found under the "Partner Cities" tab.*

## EXECUTIVE SUMMARY

Around the nation, municipalities take different approaches to maintaining sufficient revenue levels to support their residents and improve their city's quality of life. Today, however, many cities are facing a similar challenge of diminished sales tax revenues due to increased and untaxed online shopping, also known as the "Amazon effect." In Arizona, municipalities are also battling with keeping retirement funds manageable—Apache Junction has even earmarked some sales tax revenue to meet this obligation. In rapidly growing areas, such as the Phoenix metropolitan area, newly incorporated cities can also divert revenues from abutting established municipalities and reduce their shares of state revenue, thus magnifying other effects.

These are all challenges Apache Junction faces today. Since its incorporation in 1978, the city has taken a conservative approach to generating revenue. It does not impose a property tax, maintains a low level of bonded debt, and relies on sales tax and state shared revenue. The doubling of its population in the winter with residents from other states helps to maintain its municipal tax revenues. Additionally, services provided to residents such as water, fire, and solid waste are run by private companies, which means that they are not currently the financial responsibility of the city but are also not vessels for revenue generation. While this approach has worked in the past, Apache Junction is now facing a potential for reduced revenue and looking for new ways to generate funds that will help the city thrive.

**PAF 509:** The students in this course dedicated their independent master's degree capstone reports to Apache Junction's search for paths to increase revenue. Each performed two case studies of the nearby peer municipalities of Avondale, Chandler, Mesa, Maricopa, Oro Valley, and Queen Creek. They investigated revenue challenges these municipalities were facing and approaches they have taken to generating funds. Then the students produced findings, and recommendations that included the following: 1) reevaluating fees, such as introducing higher fees for non-residents and commercial businesses; 2) expanding local economic opportunities, such as building a boutique retail sector; and 3) reconsidering a property tax, such as introducing a secondary property tax to retire debts.

The ideas and recommendations presented by these students are starting points for Apache Junction. Their research and identified opportunities are meant to support the city as it defines an approach to increase revenue. However, future plans need to reflect Apache Junction's unique demographics. Compared to peer cities such as Mesa, Avondale, and Queen Creek, Apache Junction's population has a much higher median age (50.9 years old) and lower median income (\$38,053) which may call for a different approach. Further, the work featured in this report is not comprehensive or totally cohesive, and any pursuit of the recommendations requires professional review and consideration. That being said, the course reports are meant to stimulate deeper conversations for managers and policy makers.

Following this Executive Summary are the highlighted goal and recommendations resulting from the course and an introductory summary of the student work. This summary covers the problem targeted, research methods used, research findings, student recommendations, and areas for further exploration. The report concludes with the student deliverables in their entirety, which can be consulted for greater depth and more clarity on how the recommendations were reached.

## GOAL & RECOMMENDATIONS FOR FINDING NEW REVENUE SOURCES

### Goal

The goal of this report is to determine how Apache Junction can increase and diversify its revenue sources.

*While a conservative approach has historically appealed to residents and resulted in relative economic resiliency for the city, Apache Junction is vulnerable to revenue fluctuations with the Amazon effect, obligations of the Public Safety Personnel Retirement System (PSPRS) and the possible incorporation of San Tan Valley. The city is looking to maintain an adequate and diverse stream of revenue for high-quality municipal services.*

### A COMPARISON OF SALES TAX, SALES TAX REVENUE, AND GENERAL FUND REVENUE BETWEEN FOUR PEER CITIES

FY 2016	Apache Junction	Maricopa	Queen Creek	Oro Valley
Revenue from Sales Tax	\$11.3M	\$9.5M	\$20.7M	\$17.8M
Local Sales Tax	2.4% retail and construction	2% retail, 3.5% construction	2.25% retail, 4.25% construction	2.5% retail, 4% construction and utility services
General Fund Revenues	\$23.4M	\$37.6M	\$30.9M	\$31.9M

*Comparison of Apache Junction's fiscal year revenue and sales tax percentages with that of three peer cities/towns.*

**Percent of annual revenue generated by services fees:**

**QUEEN CREEK: 15%**

**ORO VALLEY: 14%**

**APACHE JUNCTION: 11%**

# Recommendations for Employing Fees or Boosting Local Economy & Community to Increase Revenue

<b>REEVALUATE FEES</b> 	<b>EXPAND ECONOMIC OPPORTUNITIES &amp; FORTIFY COMMUNITY ATTRIBUTES</b> 
<p>Restructure program fees such as those for sport fields and room rentals based on residency and business classification. Peer cities of Queen Creek and Oro Valley base their fees on residency and business classification as a nonprofit or for-profit.</p>	<p>To increase economic resiliency, diversify Apache Junction's retail base by bringing in popular established brands like Sprouts and Pita Jungle.</p>
<p>Raise the cost of recreation fees or special business permits or fees like liquor license fees.</p>	<p>Grow the city's retail sector by working with small businesses to build a boutique industry that attracts visitors by creating a destination shopping experience.</p>
<p>Introduce new fees, such as a tobacco retail fee, which Maricopa collects.</p>	<p>Strive for commonly cited attributes that attract new employers or visitors such as good schools, a well-trained work force, and low crime rate, which employers look for when scouting locations.</p>
<p>Consider low-income residents when designing fees. Progressive fees (with prices based on ability to pay) maintain equal access.</p>	<p>Fill service gaps that exist for residents (e.g., develop quality park programs geared toward the city's large demographic of 55+ part-time residents).</p>
<p>Maintain transparency and open communication with residents in the fee-setting process, allowing residents to understand how the City will invest new resources back into the community.</p>	<p>Survey residents for amenities and changes they would like to see in their community. Turning words into action would increase community satisfaction and the results could attract new residents.</p>
<p>Do not decrease fees.</p>	

**Table 1.** Recommendations generated by the students of PAF 509 for Apache Junction regarding increasing revenue through fees and economic/community opportunities.

## Recommendations for Looking to Property Tax or Outside Resources For Revenue

RECONSIDER A PROPERTY TAX 	LOOK OUTWARD 
<p>Levy a primary or secondary property tax attached to something needed or desired by the community. For example, in 2008, the City of Maricopa passed a secondary property tax to pay for debt service on parks and recreation bonds.</p>	<p>Continue researching federal grants.</p>
<p>Consider introducing only a secondary property tax capped at a low rate and use it for payments toward debt service.</p>	<p>Begin planning for the external eastward-moving growth approaching Apache Junction.</p>
<p>To make a tax increase more palatable, offer a rebate or “circuit breaker” to retirees or residents who have an income under a certain threshold.</p> <p><i>Another option for making property tax more reasonable could be to concurrently reduce sales tax, as recommended by a City staffer.</i></p>	<p>Encourage tourism, which carries with it a multiplier effect.</p>

**Table 2.** Recommendations generated by the students of PAF 509 for Apache Junction regarding property tax and outside resources for revenue generation.

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FACULTY MALCOLM GOGGIN  
SCHOOL OF PUBLIC AFFAIRS

PAF 509 PUBLIC AFFAIRS  
CAPSTONE  
SPRING 2018

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# **Exploring New Revenue Sources for Apache Junction: Peer City Reviews**

## **ACKNOWLEDGEMENTS**

### **Faculty**

Malcolm Goggin

### **Students**

Deborah Mabingani

Valerie Myers

Thomas Tun

## INTRODUCTION

Since its incorporation in 1978, the City of Apache Junction has taken a conservative, pay-as-you-go approach to funding its operating budget and capital projects. The City does not collect a property tax, which can be the largest revenue source for most cities, and its sales tax is unlikely to increase beyond its combined rate of 9.6% (2.4% of which is the city sales tax). Historically, Apache Junction has relied upon winter residents and visitors to bolster sales tax revenues. Although a fiscally conservative approach appeals to residents and has contributed to the City's economic resiliency, Apache Junction today faces a rapidly changing environment with regard to sales tax revenue as well as state-shared revenue in order. This could effect its ability to maintain adequate and diverse revenue streams for its General Fund.

The three graduate students enrolled in PAF 509: Public Affairs Capstone in the School of Public Affairs at Arizona State University (ASU) set out to determine ways Apache Junction could increase and diversify its revenue sources in collaboration with City staff. This report describes the problem being addressed, the research methods used by the students, and their findings and recommendations.

For this project, three students conducted independent case studies and generated his/her own findings and recommendations as a capstone project for their Master in Public Administration or Master in Public Policy degree. They began their research by gathering data on ways that municipal revenue is generated and current threats to those revenues. Then, each student developed sets of case studies on two comparable cities near Apache Junction, collecting and analyzing their revenue data. Additionally, one student interviewed officials at these peer cities. Using these methods, the students then generated findings on the diverse ways that peer cities generate revenue.

*One student aimed to address this research question: "Are there ways that Apache Junction can raise revenue that are not yet implemented?"*

Apache Junction's main project goal was to find avenues to increase revenues. Accordingly, student recommendations included:

1. increasing fees for non-residents and commercial businesses;
2. attracting popular and established, name-brand businesses like Sprouts or Pita Jungle to increase sales tax and economic resiliency;
3. considering a secondary property tax dedicated to debt services.

Importantly, it is Apache Junction's role to identify the recommendations that best align with its values and determine how to integrate these results into a cohesive action plan. The findings may also reveal opportunities not explicitly mentioned in the recommendations. Additionally, students had ideas of areas for further exploration, but those new pathways require more assessment from the City.

The remainder of the "Exploring New Revenue Sources for Apache Junction: Peer City Reviews" report explains the methods used by the students and their findings. Next, it lists student recommendations. The summary finishes with areas for further exploration and a concise conclusion. The original student reports in their entirety can be viewed online via the Project Cities website.

## **PROBLEM STATEMENT**

The growth of online retail, the possible incorporation of nearby San Tan Valley, and changes in how state revenue are dispersed to local governments threaten Apache Junction's primary revenue sources. Finally, the Public Safety Personnel Retirement System (PSPRS) represents a growing burden to all Arizona cities. For these reasons, Apache Junction wants to determine how to diversify and increase revenue flows.

## **RESEARCH METHODS**

To understand the context of this research and recommend ways to make the Apache Junction's revenue streams more robust, the students reviewed the City's budget, income sources, expenditures, demographics, and other financial information. They then compared that data to peer cities using literature review, situational analysis, data collection and analysis, benchmarking and, in one case, in-person interviews.

**Literature Review:** This method provides background and context for a research project through compilation and review of information and data. The "literature" refers to written work such as academic papers, city documents, case studies, and materials from county governments. Students researched the City's demographics and revenue streams, as well as challenges to its model, including the impacts of: the "Amazon effect" of e-commerce on sales tax; state-tax structures on local revenue; incorporation of an adjacent community; and funding PSPRS obligations.

**Situational Analysis:** Researchers use this method to identify the context, opportunities, and challenges of an organization. One student used this analysis to understand threats to Apache Junction's revenue and the issues City officials identified (p. 2 of student report by Deborah Mabingani, find online).

**Case Studies:** This method examines a specific subject—usually an organization, situation, or group—from a specific angle. Case studies paint a broader picture while revealing insightful details. Each student conducted case studies of two peer communities (see Table 3 for information about these cities) and detailed their revenue streams. To conduct these case studies, the students added research methods of data collection and analysis and in-person interviews.

### A COMPARISON OF APACHE JUNCTION AND SIX PEER MUNICIPALITIES

	Mesa	Chandler	Avondale	Maricopa	Oro Valley	Apache Junction	Queen Creek
<b>Population (2017)</b>	481,275	257,948	81,621	49,550	44,517	40,030	39,714
<b>Median Household Income (2016)</b>	\$52,393	\$75,369	\$56,120	\$68,888	\$75,966	\$38,053	\$90,987
<b>Median Age (2016)</b>	35.7 yrs	35.2 yrs	30.4 yrs	34.8 yrs	51.9 yrs	52.1 yrs	32.1 yrs

*Table 3. Comparison of Apache Junction and the peer cities or towns researched for this report. (Data from AZ.gov and datausa.io.)*

**Data Collection and Analysis:** Information used to build case studies comes from data collection from a range of sources. Most data came from online sources, including publicly accessible financial documents, and from city employees. To render the gathered data relevant to Apache Junction, students then analyzed the data. For example, one student used the research software Stata to run evaluative regression analyses to determine how demographics and service charges relate to the total general revenue of a peer city.

**Interviews:** This qualitative research method provides insight not found in documents or data. For this report, a student conducted an in-person interview with Queen Creek staff and an email interview with Oro Valley officials (see Figure 1).

## QUESTIONS USED AS A GUIDE FOR DISCUSSIONS WITH PEER CITY OFFICIALS

1. Where can I get the latest description of fees collected by your city?
2. What primary mechanisms does your city currently utilize to raise revenue for your municipal fund (e.g. primary/secondary property taxes, cooperative efforts, intergovernmental agreements)?
3. What do you see as the biggest threats to your municipal revenue streams? [Public Safety Personnel Retirement System] funding? What strategies are you currently exploring to deal with any of these threats?
4. What opportunities and barriers do you currently feel exist for your city? What action has been taken to move these forward/address these? Have they been effective?
5. Has your city taken any innovative approaches, either in the past or presently, to increasing your general revenue streams?
6. What are your views on the threat of incorporation of adjacent cities? Has your city experienced this? If so, what financial impact was there in your city?
7. What information, if any, do you feel would be beneficial to share with the city officials of Apache Junction? What do you feel they could learn from your city's experiences regarding efforts to increase general revenue streams?

*Figure 1. The interview questions one student asked officials of peer cities for research.*

**Benchmarking:** This method involved measuring Apache Junction's revenue stream and comparing it to that of peer cities. The process allowed students to highlight areas where the City could increase revenues. One student chose to compare sales taxes, permits and licenses, fees and service charges, and total general revenue. This student also standardized revenues on a per capita basis after discovering city population and revenue totals varied significantly. (See student report by Thomas Tun online.)

## FINDINGS

A motivator for this report was the perceived negative impact of e-commerce on collected sales taxes. State and local governments around the U.S. are experiencing a loss of retail sales-tax revenue due to the growth of untaxed e-commerce, aka the “Amazon Effect.” As of May 2018, e-commerce does not generate tax revenue where the purchase is made, but where the company headquarters are based. (A June 2018 U.S. Supreme Court ruling supported states in collecting sales tax from e-commerce retailers without an in-state physical presence, but it still falls to states to implement this.) According to the student researchers, the expansive nature of the Amazon Effect may necessitate action at the federal level. While federal legislation has been proposed to address this sales tax loophole, none of it has passed. Although Apache Junction staff perceive increased online retail as a threat, they are generally positive about the ability of local dining and retail establishments to offset this loss of sales revenue.

However, local communities such as Apache Junction increasingly rely upon state-shared revenues to maintain municipal revenue, and the General Fund for the Arizona state government depends upon sales and income taxes, which have fluctuated significantly with the economic cycle. In the 1990s, the Arizona Legislature reduced tax rates and added tax credits and exemptions that resulted in approximately 30% reduction in revenue for municipal funds. Today, Arizona ranks 8th in the nation in its reliance on regressive sales and excise taxes. Regressive tax systems may exacerbate widening income inequality and threaten states’ abilities to meet basic needs in the long-term. Further, future legislative action could reduce local control over how revenues are established or collected. Changes to the tax code could eliminate categories of revenue which local governments currently collect, thus affecting municipal revenue streams.

*Local communities such as Apache Junction increasingly rely upon state-shared revenues to maintain municipal revenue.*

Other threats to Apache Junction’s revenue are the incorporation of nearby San Tan Valley and the increased burden of funding PSPRS obligations. Although it supports San Tan Valley’s incorporation, nearby Queen Creek is opposed to the boundaries being drawn as they overlap with how it expects to expand. Further, Queen Creek officials estimate that non-residents (primarily 100,000 residents living in San Tan Valley) generate about 30% of the town’s sales tax revenue. Similarly situated

alongside San Tan Valley, Apache Junction could also lose sales tax revenues. As for funding their PSPRS obligations, peer cities have varying solutions. Queen Creek viewed this unfunded liability as a debt and created a plan to pay it down, while Oro Valley increased its contribution rate. However, Oro Valley does not expect to increase this further, instead working to dedicate annual one-time surplus funding to pay down the unfunded liability. Otherwise, the limited ability to fund pensions pressures cities to limit hiring and pay raises.

### *Proposed Solutions*

#### *Fees, Permits, Licenses, Charges for Services*

Common revenue raising strategies among municipalities are to increase user fees, permits, and licenses. **Since the 1970s, local user charges have been the fastest-growing revenue stream for local governments.** Such fees include recreation fees, building permits, and franchise fees. But **when it comes to general revenue per capita generated from issuing licenses and permits, Apache Junction's returns have reached their lowest point in the last 10 years.** In the peer city of Mesa, the highest average amount collected from licenses and permits came from building permits, then zoning fees and subdivision development fees. In Avondale, the highest average amount collected came from engineering plan review, engineering permit fees, and building permits. The most frequently collected revenue in the permits and licenses category for Mesa were alarm permits and assessments collected by the police, followed by residential building permits. As for Avondale, the most frequently collected were electrical permits, followed by occupational license fees, building permits, and plumbing fees.

**The peer city of Maricopa brought in nearly \$1.6M of revenue from a broader spectrum of fees, permits, and business licenses. In contrast, Apache Junction collected \$581,000.** There are demographic and contextual differences between the two peer cities (see Table 3), but the student who conducted this case study proposed that the cost of construction permits may account for the difference. While increasing the cost of building permit fees could increase revenue, this revenue, dependent upon continued growth, could prove unreliable should growth slow or stop.

By contrast, in 2015, Apache Junction brought in \$270,000 in revenue from business licensing fees while Maricopa collected only \$50,000. However, Maricopa charges specific special business permits that Apache Junction does not, including permits for tobacco retail, pawn shop, and massage (p. 12 of student report by Valerie Myers, find online).

**Changing the fee structure or increasing the cost of business permits could serve to increase revenue.** The peer city of Chandler also charges higher business fees than Apache Junction. One example is the cost of a liquor license, which costs about \$1,400 in Chandler versus \$250 in Apache Junction. Finally, in 2017, Maricopa brought in \$3.1 million in franchise fees while Apache Junction only received about \$109,000.

**As for service fees—which are charges for a broad range of city services including utilities, library services, and Parks and Recreation programs—these revenues have declined in Apache Junction while increasing for Mesa and Avondale.**

The fees account for 15% of revenue for Queen Creek, 14% for Oro Valley, and 11% for Apache Junction. Queen Creek allocates most service-fee revenue to its Enterprise Fund, which totals nearly \$24 million. Enterprise Funds are obtained exclusively through goods and services fees, and are used in turn to pay for goods and services (typically utility services) that generate the revenue.

*Services fees as percent of annual revenue in:*

**QUEEN CREEK: 15%**

**ORO VALLEY: 14%**

**APACHE JUNCTION: 11%**

In 2015, Maricopa's Department of Parks and Recreation brought in \$466,000. Maricopa charges higher monthly membership fees for its recreation center, room rental rates, and non-resident user rates than other cities. For their Parks and Recreation programs, the peer cities of Queen Creek and Oro Valley structure fees based on resident status (non-resident or resident) and business status (nonprofit versus commercial use) as well. **This segmented fee structure allows for increased revenue while providing affordable access to services for residents and nonprofits.** (See Figure 2 for fees charged by Oro Valley for sports fields.) Comparatively, Queen Creek charges higher fees for meeting room and sports field use than does Apache Junction. It also offers fee-based preschool and kindergarten programs catering to young families moving to the town.

## ORO VALLEY CHARGES FOR USE OF ATHLETIC FIELDS PER HOUR

### **Non-peak hours (6am to 5pm)**

Residents: Flat fee of \$5  
Nonprofits: Flat fee of \$5  
Non-residents: \$10  
For-profit businesses: \$10

### **Peak hours (5 to 10pm)**

Residents: \$10  
Nonprofits: \$10  
Non-residents: \$20  
For-profit businesses: \$20

*Figure 2. Oro Valley's charges for use of athletic fields per hour.*

Something to keep in mind when determining service charges and fees for licenses and permits are demographics. For example, it is important to ensure that prices are appropriate for the demographics of a city. Apache Junction has a lower median household income than Mesa or Avondale, but Apache Junction's dip in median income after the Great Recession suggests a more vulnerable average household income. Further, Apache Junction's population is older than average, though it wants to attract a younger population to the city.

Charges for service and fees are viewed as more equitable because those who are using the services are the ones who are paying for them. They are easier to implement because they are instituted by city council vote, rather than citizen vote. However, **fixed user fees are considered to be regressive, as they take a greater percentage of discretionary income from lower-income users than higher-income users.** One way to structure fees more progressively would be to institute conservation pricing, which would mean entities with higher density service use, or bulk use, would be charged higher rates. In effect, businesses and larger institutions would pay more for services than homeowners or lower-income users. A special assessments fee is another type of progressive fee. This fee pays for infrastructure projects (e.g., sidewalks, stormwater drains, or transportation improvements) levied against homeowners whose property values would be increased by these projects. Special assessments fees can be one-time fees or special taxes tied to property value increases.

## Taxes

### **The primary revenue source for Apache Junction is its sales tax (2.4% of retail sales), which brought in more than \$11M in 2017.**

In Maricopa, which has a similar population but a slightly lower retail sales tax (2% of retail sales, 3.5% of construction sales), the amount generated by sales tax was \$9.4M. The peer city of Queen Creek allocates 54% of its overall sales tax revenue to its General Fund; 75% percent of revenue from its sales taxes are in the construction and retail categories. (The 4.25% construction sales tax is a higher rate than retail sales tax.) (See Table 4.)

According to FY 2016-2017 budgets, Maricopa's General Fund revenues were more than \$37.6M while Apache Junction's were about \$24M, even though the two cities have similar populations. The student who conducted the Maricopa case study pointed to Maricopa levying a primary property tax to explain the difference. (Apache Junction does not.) **Maricopa approved its primary property tax in 2006 for public-safety spending. Maricopa also approved a secondary property tax to pay for debt service on parks and recreation bonds.** Together the property taxes total 6.4818%, brought in nearly

### **A COMPARISON OF SALES TAX, SALES TAX REVENUE, AND GENERAL FUND REVENUE BETWEEN FOUR PEER CITIES**

<b>FY 2016</b>	<b>Apache Junction</b>	<b>Maricopa</b>	<b>Queen Creek</b>	<b>Oro Valley</b>
<b>Revenue from Sales Tax</b>	\$11.3M	\$9.5M	\$20.7M	\$17.8M
<b>Local Sales Tax</b>	2.4% retail and construction	2% retail, 3.5% construction	2.25% retail, 4.25% construction	2.5% retail, 4% construction and utility services
<b>General Fund Revenues</b>	\$23.4M	\$37.6M	\$30.9M	\$31.9M

*Table 4. Comparison of Apache Junction's fiscal year revenue and sales tax percentages with that of three peer cities/towns.*

\$10.3M to the General Fund and \$3.7M toward the Debt Service Fund in 2017. Queen Creek voters approved a 1.95% property tax in 2007, with all revenues allocated to the Emergency Management Services Fund. Of Chandler's general revenues funds, 11.6% comes from property taxes.

As for the peer community of Oro Valley, 70% of its fiscal year 2017-2018 annual budget revenues came from sales taxes, state-shared revenues, service charges, and water sales (see Figure 3 for details). The 0.5% local sales tax it added in 2015 helps fund operations of its Community Center. **Oro Valley also levies a 6% tax on lodging to support economic development and tourism.** This type of revenue, termed "tax exporting," raises revenue that is paid by visitors, often as a result of tourism.

### **Grants**

Queen Creek is also looking beyond its traditional funding to support capital infrastructure projects deemed necessary to respond to its rapid growth. City staff and officials are considering new funding mechanisms, including publicly financed loans or bonds or state and federal grants. Indeed, inter-governmental grants are another area a city can look to for added revenue. The federal government offers matching grants. The U.S. Environmental Protection Agency (EPA) awards billions of dollars of grants each year, including the Healthy Places for Healthy Families grant, which supports the development of walkable downtown areas, and the Cool and Connected grant, which helps rural communities get broadband service infrastructure. Other sources that have grants to support economic development are the Federal Highway Administration, U.S. Economic Development Administration, and U.S. Department of Housing and Urban Development (HUD). For example, **HUD awarded funding to Chandler to develop affordable housing in 2016 and 2017, including the Public Housing Authority (PHA) Family Sites Grant, PHA Management Grant, and the PHA Capital Program Grant.**

*The EPA awards billions of dollars of grants each year, including the Healthy Places for Healthy Families grant, which supports the development of walkable downtown areas.*

In 2016, these grant awards totaled more than \$13M in revenue for Chandler.

### ***Strategic Approaches***

Fees, permits, and service charges comprise only a small part of city revenues. While property taxes are another way to generate revenue, according to one student researcher, the lack of property taxes in Apache Junction may be a competitive advantage for attracting employers. However, employers and workers look for other assets that Apache Junction could use to attract them, including a diverse workforce, good public schools, and safe neighborhoods.

Further, investments in economic development can increase revenue by creating jobs and local sales. **According to a recent EPA report, municipalities should focus on these three areas when trying to grow their economies: supporting local business (starting with what is already working); investing in workforce development; and nurturing quality of life.** (See Figure 4 for strategies for doing so.) One student proposed to diversify retail to include businesses

#### **STRATEGIES FOR GROWING LOCAL ECONOMIES**

- Revitalize downtowns, particularly historic downtowns.
- Re-zone business areas as mixed-use areas to allow for more vibrant, livable districts.
- To encourage revitalization and mixed-use development, partner with and provide tax incentives to developers and business owners.
- Encourage young entrepreneurs and small businesses through information-sharing opportunities, grants, and low-interest loans.
- Provide opportunities for students such as internships to attract young people.
- Develop community gathering spaces, mixed types of housing, open spaces, parks, cultural and arts centers.
- Invite artists and creatives to help define these spaces.

**Figure 4.** Strategies gathered by one student for growing local economies. (See p. 9 of Myers student report.)

that are congruent with community needs and resilient to e-commerce competition. All related strategies require dedicated financial investment and longer-term commitments than increases in fees.

**To expand its economy, the peer city of Maricopa has focused on the technology sector, recruiting employers in agriculture technology, research, and manufacturing.** To nurture economic growth and an improved quality of life, Queen Creek funded a park and equestrian center with its General Fund (see Figure 5). The revenue from this venue goes to maintenance and then back into the General Fund. The venue benefits the community by hosting organizations, car shows, concerts, and other events.

**Partnerships provide opportunities to leverage shared resources into increased revenue and improved quality of life for residents.** For example, Oro Valley works with nonprofits, including the Children's Museum of Oro Valley and the Southern Arizona Arts and Cultural Alliance, to support community events like the Oro Valley Marketplace and the Oro Valley Festival of the Arts. It continues to seek partnerships



*Figure 5. New Queen Creek equestrian center. Photo by Todd Broadhead from [queencreek.org/departments/horseshoe-park-equestrian-centre](http://queencreek.org/departments/horseshoe-park-equestrian-centre).*

with the county, tourism agencies, and other entities. **Queen Creek and the City of Mesa combined forces for the “Visit Mesa” campaign to increase tourism and retail sales.** On a smaller level, cities can partner with their residents, inviting them to help found new parks, plant trees, or purchase benches.

Apache Junction’s peer towns and cities have pursued specific strategies. Queen Creek refinanced a large debt, consolidating two large loans to reduce long-term interest. To reduce healthcare expenses, Oro Valley educated public employees about healthcare and wellness. Looking to reduce the impact of vehicles purchased on the City’s operating budget, Oro Valley began to set aside funds to cover vehicle replacements beginning one year after new vehicles are purchased. As of May 2018, the program has resulted in \$375,000 for this purpose.

## RECOMMENDATIONS

For this report, Apache Junction requested suggestions for restructuring fees to increase revenue. Students generated related recommendations, as well as recommendations for other ways Apache Junction could increase revenue. These range from stimulating the economy by improving community resources to proposing new taxes for specific purposes. However, the students do acknowledge the need to take into consideration Apache Junction’s demographics and strategy when deciding which to pursue. Although their recommendations are useful, it will require some discretion to determine which are most applicable and beneficial. This section presents revenue-increasing actions, but Apache Junction will also need to define those that best reflect its priorities and the values of its constituencies.



### *Reevaluate Fees*

1. Restructure program fees such as those for sport fields and room rentals based on residency and business classification. Peer cities of Queen Creek and Oro Valley base their fees on residency and business classification as a nonprofit or for-profit (p. 27 of Mabingani student report).
2. Raise the cost of recreation fees or special business permits or fees like liquor license fees (p. 16 of Myers student report).

3. Introduce new fees, such as a tobacco retail fee, which Maricopa collects (p. 16 of Myers student report).
4. Consider low-income residents when designing fees. Progressive fees (with prices based on ability to pay) maintain equal access (p. 33 of Tun student report).
5. Maintain transparency and open communication with residents in the fee-setting process, allowing residents to understand how the City will invest new resources back into the community (p. 27 of Mabingani student report).
6. Do not decrease fees (p. 33 of Tun student report).



### *Expand Economic Opportunities and Fortify Community Attributes*

1. To increase economic resiliency, diversify Apache Junction's retail base by bringing in popular established brands like Sprouts and Pita Jungle (p. 27 of Mabingani student report).
2. Grow the city's retail sector by working with small businesses to build a boutique industry that attracts visitors by creating a destination shopping experience (p. 17 of Myers student report).
3. Strive for commonly cited attributes that attract new employers or visitors such as good schools, a well-trained work force, and low crime rate, which employers look for when scouting locations (p. 16 of Myers student report).
4. Fill service gaps that exist for residents (e.g., develop quality park programs geared toward the city's large demographic of 55-plus part-time residents) (p. 27 of Mabingani student report).
5. Survey residents for amenities and changes they would like to see in their community. Turning words into action would increase community satisfaction and the results could attract new residents (p. 17 of Myers student report).



### *Consider a Property Tax*

1. Levy a primary or secondary property tax attached to something needed or desired by the community. For example, in 2008 Queen Creek began levying a "limited" property tax dedicated exclusively to public safety, and the City of Maricopa passed a secondary property tax to pay for debt service on parks and recreation bonds (p. 15 of Myers student report).

2. Consider introducing only a secondary property tax capped at a low rate and use it for payments toward debt service.
3. To make a tax increase more palatable, offer a rebate or “circuit breaker” to retirees or residents who have an income under a certain threshold.

*Another way to make property tax more reasonable could be to concurrently reduce sales tax, as recommended by a City staffer.*



### Look Outward

1. Continue researching federal grants (p. 15 of Myers student report).
2. Continue planning for the eastward-moving growth approaching Apache Junction (p. 28 of Mabingani student report).
3. Encourage tourism, which carries with it a multiplier effect (p. 16 of Myers student report).

## AREAS FOR FURTHER EXPLORATION

In all further analyses and modification of revenue sources, Apache Junction should consider the low median household income of its residents (p. 33 of Tun student report).

Additionally, Apache Junction should identify its qualities that attract employers. Building upon these findings, Apache Junction could set out to attract compelling employers that would draw families that might otherwise move to nearby municipalities. This migration would, in turn, generate revenue for the City (p. 16 of Myers student report).

Conservative governments seek to model policies that limit expenditures, taxes, or other revenues. However, it is unclear if such policies, instituted in Apache Junction and Arizona have, in fact, succeeded. A possible future project could investigate the true effects of these policies. The research findings could influence whether Apache Junction decides to raise its fees and service charges or wait for the economic results anticipated from such policies (p. 33 of Tun student report).

## CONCLUSION

While Apache Junction's revenue continues to grow at a steady rate, the City's dependence on sales tax, state funds and revenue, fees, and grants makes it vulnerable. The growth of e-commerce and the incorporation of nearby San Tan Valley are two possible threats to its revenue. For their culminating experience projects in PAF 509: Public Affairs Capstone at ASU, three graduate students conducted independent research to paint a detailed picture of how peer cities generate revenue and recommend ways Apache Junction can increase its revenue stream. Recommendations included restructuring fees and service charges, growing the local economy in community-appropriate ways, considering property taxes, and looking to outside sources. Before Apache Junction takes action, however, the City will need to first align the findings of the students with its vision, culture community needs.