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**PREPARED BY**

The Food Assessment  
Coordination Team  
(FACT)



# **A Comprehensive Food Assessment for Maricopa County**

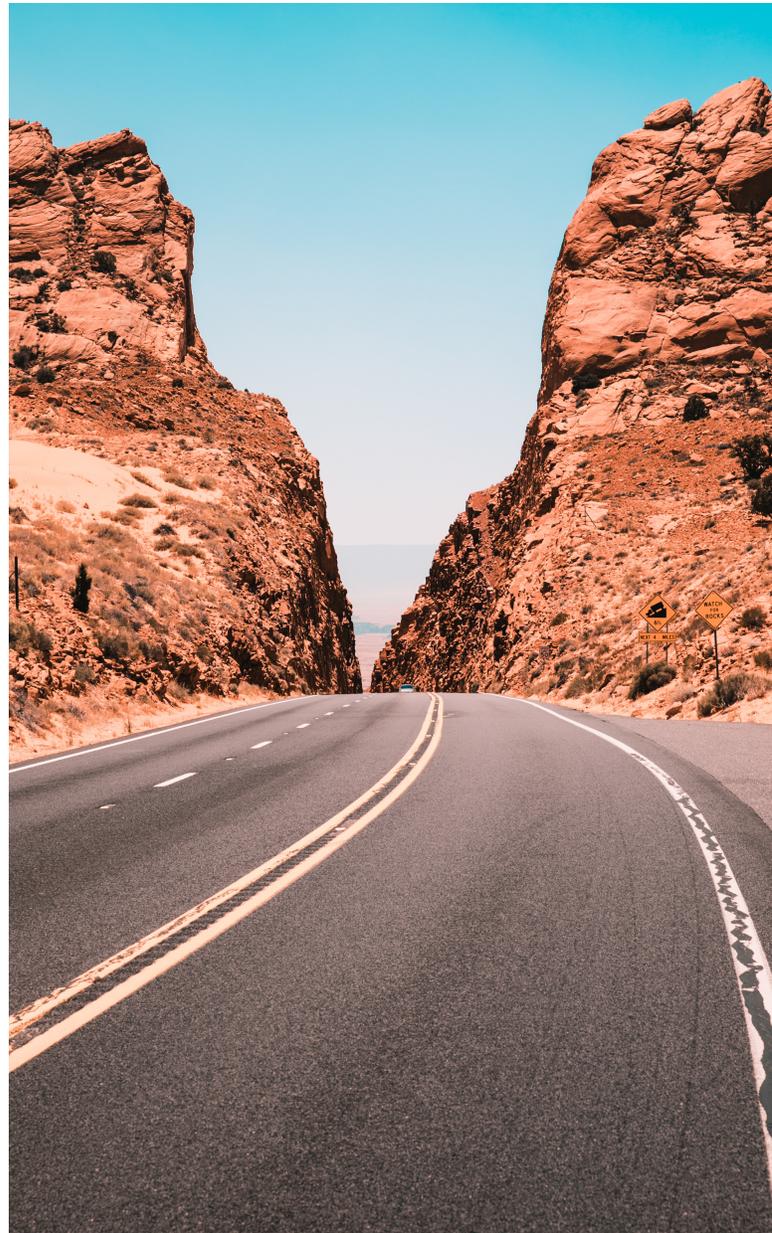
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A Desert Food System  
Facing Unique  
Challenges



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## Executive Summary

How does the fourth most populous and fastest growing county in the United States feed itself when faced with daunting land, water, and development challenges? How do we preserve our diverse agricultural heritage and grow a food system in Maricopa County that is equitable, healthy, sustainable and thriving? The opportunities to address these questions lie in our ability to inform policy and investment strategies that create health, wealth, community and capacity, while also building relationships based on trust and mutual respect among growers, residents, organizations, and decision-makers.

Maricopa County Food System Coalition, or “MarCo”, is an independent, voluntary coalition comprised of 225 individuals and 110 organizations advocating for the regeneration and advancement of a community-based food system in the region. As the leading expert on community food systems in Central Arizona, MarCo focuses on innovative and collaborative solutions through the work of our committees and work groups. In 2015, MarCo identified the need to conduct a comprehensive regional food assessment as a top priority and the Food Assessment Coordination Team, or “FACT”, was formed.

A comprehensive food assessment is a snapshot in time of how the food system within a specific geographic region is working well, and where it needs to be improved. Because the “food system” is extremely complex, FACT interviewed MarCo Members and Friends to learn what types of information would be most valuable in order to build broader momentum for food systems work and guide strategic action. We decided to focus on the issues facing growers, eaters, and the networks that link the two, with an additional emphasis on the economic contribution of on-farm agriculture, municipal policy, and the productive resources of land and water. This graphic summarizes our core food assessment components and our major accomplishments since 2015. The next page briefly outlines the main Strengths, Weaknesses, Threats, and Opportunities identified through our work. Subsequent pages provide a summary of The Food Assessment in greater detail with regards to our approach, methods, and key findings. However, we encourage you to delve even deeper into the results by visiting [marcofoodcoalition.org](http://marcofoodcoalition.org) and clicking on Food Assessment. Here, you can access full reports for various Food Assessment component studies.

MarCo is currently utilizing the results of the Food Assessment to inform our 2019 strategic planning process. The Policy Work Group and FACT are developing recommendations to take the assessment results on the road through an educational and advocacy campaign. We are also developing recommendations for building stronger connections among growers and civic leaders, and ways to keep the Community Food Conversations going to emphasize food sharing and building community.





## Strengths

- ◆ Maricopa County is a national leader in value of milk, hay, and other forage crops. We are also a national leader in the production of vegetable, potato and melon crops.
- ◆ Farmers that grow for local markets are some of the most skilled in the country based on impressive crop yield.
- ◆ Independent food distributors demonstrate commitment to increasing local food purchasing and distribution.
- ◆ Some municipalities have General Plans supportive of local food systems and many use programmatic approaches such as community gardens and resident education.
- ◆ In general, consumer buying power in the region is very strong, which provides potential for new market opportunities for regional growers.
- ◆ Many residents express that they value high quality foods including “ripe, healthy, seasonal, and organic produce.”
- ◆ Residents are interested in engaging in solutions that leverage food to develop social connections and build community.
- ◆ Food system leaders and organizations are committed and show key shifts towards a focus on policy and systems change.



## Weaknesses

- ◆ 95% of all county sales came from just 186 farms which represents less than 10% of all farms.
- ◆ Access to productive resources such as land and water is limited.
- ◆ Too many farmers feel isolated and underrepresented.
- ◆ There are too few growers serving existing local markets limiting potential for the increasing demand for local foods.
- ◆ There is a shortage of food processing infrastructure.
- ◆ Many municipalities take a reactive approach when it comes to policies and regulations impacting the local food system.
- ◆ Barriers to supportive municipal policy include limited staff resources and the presence of many HOAs making policy implementation difficult at the neighborhood-level.
- ◆ Consumers and civic leaders lack awareness of and investment in community food systems.
- ◆ Hunger, diet-related disease and other risk factors are higher than the national average for Maricopa County residents.
- ◆ 1 in 5 Maricopa County children report not knowing where their next meal will come from at some point in the last six months.
- ◆ Barriers to achieving a healthy diet include affordability, transportation and low access to stores selling quality foods.
- ◆ Food system groups are overrepresented by members from groups with historically better and more reliable access to healthy foods and other forms of privilege which limits their perspective and progress toward stated goals of improving equity.



## Threats

- ◆ The county’s potential to grow its own food is small and is shrinking due to the loss of productive agricultural land and water.
- ◆ Agriculture must compete with urban development to hold on to the land and water it needs, both of which are heavily regulated in favor of urban development.
- ◆ The cost to purchase or rent farmland in Maricopa County is too high for most farmers as supply decreases and competition increases.
- ◆ The average farmer is 60 years old, many are considering leaving the profession or moving elsewhere. Growing new farmers is extremely difficult.
- ◆ Many decision-makers, and some local food champions, are unaware of how certain municipal policies and regulations can negatively impact food systems.
- ◆ Maricopa County depends on \$900 million of federal aid each year to provide food relief to low-income residents.



## Opportunities

- ◆ Convene farmers and civic leaders to improve awareness around the unique needs of growers while building trust, social capital, and new networks.
- ◆ Advocate for public policy and investment that fosters community health, wealth, connection and capacity.
- ◆ Build economic resilience by scaling and diversifying local market options for farmers.
- ◆ Implement an eat local campaign. If residents spent \$5 on food from a regional farm each week, farmers could generate \$1.1 billion in sales a year!
- ◆ Continue to engage eaters using equity and justice approaches with a focus on food in building community, food access solutions, as well as food quality and value.

# Our Assessment Approach

**The food system is so complex that we could easily spend a lifetime trying to understand how it operates and influences Maricopa County and its inhabitants.** The Food Assessment Coordination Team (FACT) of the Maricopa County Food System Coalition (MarCo) wanted to take a snapshot in time of the food system in the region to identify where it works well, and where it needs improvement. FACT recognized the need to understand the food system in the most comprehensive way, while creating new knowledge that would be useful to MarCo members, our partners, decision makers, and the public.

In 2015, FACT interviewed various MarCo Members and Friends who were working and/or interested in various aspects of the food system to determine priority areas for the assessment. Based on this feedback, FACT decided to focus the food assessment on the strengths, weaknesses, threats, and opportunities impacting growers, eaters, and the networks that link the two in and around Maricopa County. In October 2016, MarCo received funding from the Gila River Indian Community to complete many major components of the food assessment introduced below and generally described throughout this Summary Report. FACT and MarCo are also indebted to the in-kind contributions of many MarCo Members and Friends. This section describes a summary of the methods used to complete each component of the assessment.





## **Food Access and Diet-Related Health with Maricopa County Department of Public Health**

Early in the Food Assessment process, FACT developed a survey to identify and categorize the various types of food access, food insecurity, and anti-hunger work implemented by organizations throughout the county. Fifty-five different organizations participated in the survey, which allowed FACT to better understand where food access and food insecurity work is concentrated and how various organizations were framing these issues. This input also helped FACT further refine

assessment objectives, especially in regards to the review and communication of existing data on food access available from Maricopa County's 2016 Community Health Needs Assessment, health data from Arizona Department of Health Services, Feeding America, and USDA. The data was used to better understand patterns in food consumption, food access gaps, and the prevalence of diet-related health issues and overall health disparities.



## **Regional Food Asset Map: Arizona Good Food Finder with Local First Arizona**

The Coalition partnered with Local First Arizona Foundation to map local food assets in the county. Asset mapping is an important food assessment tool with the ability to 1) create awareness of local resources; 2) increase understanding of potential community connections around food; and 3) identify opportunities to meet community needs through existing assets. Fortunately, there was an already established statewide food asset map, known as the Good Food Finder.

Local First Arizona Foundation, which hosts this online directory, recently updated 567 existing listings and added 144 new local producer, distributor, retailer, and restaurant listings within the region. This searchable database is a great resource for individuals and businesses interested in purchasing more local produce and value-added products, or for those hoping to get connected to an area Farmers Market, Community Supported Agriculture project (CSA), or Community Garden.



## **Economic Contribution Analysis of Maricopa County and Gila River Indian Community with the University of Arizona Cooperative Extension**

FACT recognized the need to better understand and appreciate on-farm agriculture in the region and how it contributes to our local economy. We partnered with The University of Arizona (UofA) Cooperative Extension's Economic Impact Analysis Program, experts in statewide agriculture economics, to capture the current state of agricultural production in Maricopa County and the Gila River Indian Community and their respective contributions to the regional economy. Based on recommendations from our UofA partners, existing resources, and the usefulness of results, FACT decided to focus on "on-farm agricultural production" as opposed to the broader agricultural industry.

The report includes an overview of farm and farming characteristics, commodities produced, their direct sales effects, and an estimate of multiplier effects

within the regional economy. Multiplier effects include regional economic outputs beyond farm sales that may occur as a result of business-to-business or household-to-business transactions. Additionally, information on food versus non-food agricultural production, and existing data on direct sales to county consumers, retail, and intermediaries is provided within the larger context of agriculture as a whole in the region. Data were collected from the Bureau of Economic Analysis, Bureau of Labor Statistics, and 2012 Census of Agriculture. Modeling software was used to estimate the total economic contribution of agriculture to the county economy, including multiplier effects. The section on Agriculture in Maricopa County summarizes some of the key results from this study and compares some data points from the 2012 Census of Agriculture with updated 2017 figures.



## **Building Community Food Networks Through Community Foods with Ken Meter of Crossroads Resource Center**

FACT wanted to develop a comprehensive understanding of the relationships, connections, shared values, and motivations that drive community food system efforts in the region, as well as the major challenges and opportunities facing food and farming stakeholders. FACT worked with economist and nationally recognized regional food systems expert, Ken Meter, and his team at the Crossroads Resource Center, to design and conduct key stakeholder interviews.

The 33 individuals who participated include farmers, food buyers, chefs, food bank staff, non-profit staff, City and County staff, and others who held expert opinions

regarding the workings of the community-based food trade. Interviews addressed the following questions: 1) What are the emerging community food networks in the region? 2) What factors enable or constrain these networks? 3) What factors enable or constrain the scaling up of local food in the region? Interviewees were also asked to name the five principal partners with whom they collaborated. This information remained confidential and was used for a social network analysis. Results were synthesized in the form of case studies, social network mapping of the county's community food networks, and key recommendations.



## **Community Food Conversations with Community Alliance Consulting**

In order to engage more diverse voices and understand local resident perspectives related to their community food system, FACT conducted a series of Community Food Conversations in three communities: Glendale, South Phoenix and Tempe. "Our Neighborhood, Our Food: Community Food Conversations" were developed under the guidance and support of Community Alliance Consulting (CAC). CAC customized and trained MarCo Members to implement a "community listening session" model based on town hall meeting and focus group

methods in order to promote in-depth smaller group conversation, while engaging a large number of people at one event. Two community conversations were held in each of the three communities; each provided in English and Spanish. The first focused on uniform questions across all three communities in order to highlight participants' views on existing food gaps, challenges, assets and values. The second session explored more deeply the specific community themes uncovered in each of the first sessions.



## **Local Public Policy & Regulations with The Planning Center**

This assessment component was led by the MarCo Policy Work Group in coordination with The Planning Center in order to collect, examine, highlight, and recognize public policies and regulations by municipalities across Maricopa County that relate to and advance the local food system. Policy information was gathered from diverse municipalities across Maricopa County through an online survey as well as detailed in-person interviews with city/town staff

involved in planning, sustainability, public works, economic development, and community development departments. These policies, for example, might relate to community gardens, farmers' markets, mobile food vending, food waste, local water use, farmland preservation, and community engagement. A particular focus was placed on goals and policies included within city General Plans, which serve as road maps and accountability tools for local decision-making.



## Study on the Role of Agricultural Land & Water in Current & Future Food Production in the Region

FACT identified the need to better understand the current and future state of land and water as the most important productive resources for maintaining and expanding local food in the region. Publicly available data from sources including the United States Department of Agriculture (USDA) and the Arizona Department of Water Resources (ADWR) were examined to understand how high level policies such as the 1980 Groundwater Management Act and land use

development patterns are currently shaping the local food system. Supplemented with expert interviews, this report walks through the major sources of agricultural water for the county and the implications of their current policies and trends for supporting the local food system. It concludes with a section on the Gila River Indian Community's food system from a historical perspective in light of their rapidly changing capacity to support their agricultural economy.



## Co-learning & Co-analysis of Food Assessment Results

Each food assessment component and report is broad and dense, ranging between 12-50 pages. FACT recognized the need to actively engage with the Coalition throughout the assessment process in order to support co-learning about, and collaborative meaning making of the data. During monthly meetings, FACT presented the key takeaways of each assessment

component (focusing on a different topic area or report during each meeting) and facilitated group discussions to reflect on assessment results, identify the most influential results for current and future coalition work, and highlight areas where members wanted to learn more.

## Navigating the Report

This Summary Report is a culmination of the seven components of the comprehensive regional food assessment. Our Approach summarizes the goals and methods used for each individual assessment component.

As the Coalition discussed individual reports and outcomes of the assessment, four thematic areas emerged: Eating in Maricopa County, Agriculture in Maricopa County, Local Food Systems Policy, and Community Food Networks (Sections 3 – 6). Each thematic area synthesizes evidence from multiple components of the assessment to provide a holistic understanding of the food system.

FACT thought it important to recognize activities that exemplify what is working particularly well around food in

Maricopa County. One or two relevant Case Illustrations follow each thematic section.

Sections 6 and 7 summarize external factors that challenge our ability to support and grow a healthy, equitable, sustainable, and thriving food system as well as opportunities for MarCo Members, Friends, and organizations across the county to make better decisions around community food systems.

Please visit [marcofoodcoalition.org](http://marcofoodcoalition.org) to access full reports and webpages for even more in-depth results than what is provided in this Summary Report.

# Eating in Maricopa County



## Diet-Related Health

Food connects us all, and our food choices each day affect our health today, tomorrow, and in the future. Food choice is influenced by a number of factors including culture, income, education, and the availability and affordability of healthy foods where we live, learn, work, and play. Eating a diet rich in fruits and vegetables can help prevent many chronic diseases, improve overall health and well-being, and lead to better academic and work performance. Despite these overwhelming benefits, most Maricopa County residents aren't getting enough of these critical foods.

According to the Behavioral Risk Factor Surveillance System Survey, only 17% of residents report eating 5 or more servings of fruits and vegetables each day. As this data is self-reported, the actual percentage is likely much lower. Poor nutrition contributes to the county's high rates of obesity, high blood pressure, type 2 diabetes, and coronary heart disease; all of which exceed national averages. Diet-related illnesses can also impair quality of life, lead to decreased worker productivity, and increased healthcare costs.



## Food Insecurity & Food Access

Many people in Maricopa County don't know where their next meal will come from. Approximately 1 in 5 children experience food insecurity, and overall household food insecurity rates in Maricopa County and Arizona, at 13.7% and 14% respectively, are higher than the national average of 12.5%.

Food insecurity may be long-term (persistent poverty) or temporary (sudden job loss, unexpected health problems), and does not occur in isolation. Food insecure households have to make trade-offs with their resources to meet

important basic needs such as housing and medicine, and purchasing nutritious food. When asked if they are able to pay for essentials - including food, clothing, and housing - 49% of Maricopa County residents reported that they "sometimes or never" have enough money for these things.

Healthy, affordable, and high-quality foods can also be difficult to find, especially in low-income neighborhoods, communities of color, and rural and tribal areas. In these communities, convenience stores and fast food restaurants may be widespread while grocery stores, farmers markets, and other places that sell fresh, healthy food are often scarce.

Access to healthy food is a critical part of a healthy, thriving community, and was identified as one of the top health improvement priorities in the 2017 Maricopa County Community Health Needs Assessment.



# Food Access in Maricopa County



**14%**

Population that is food insecure (Maricopa County)



**21%**

Children who are food insecure (Maricopa County)



**57%**

Students eligible for free- or reduced-price lunch (Arizona)



**7%**

Households with no vehicle (Maricopa County)



**29%**

Obesity rate (Maricopa County)



**10%**

Diabetes rate (Maricopa County)



**12%**

Households that receive SNAP (Maricopa County)



**\$1.80**

In total economic activity for every dollar in new SNAP benefits



## Findings from “Our Neighborhood, Our Food”: Community Food Conversations

In 2018, MarCo held two Community Food Conversations with residents in each of the three communities: South Phoenix, Tempe, and Glendale. The goal was to learn from residents about what they felt was missing from, and what is strong about the way their community grows, sells, buys, or eats food; as well as what the community values most when it comes to food.

Overwhelmingly, people are concerned about the quality of food they eat, and also noted affordability as a major challenge to accessing higher quality, fresh, and healthy foods. Many people felt that they did not have access to the same grocery stores found in more affluent areas, and talked about traveling far distances to shop at these stores.



**“If you buy [the produce] cheap, they will be bad soon. Before you have a chance to eat them.”**

*- Participant Quote*

Community members want more opportunities to learn about healthy eating, community resources, gardening, and cooking; especially how to prepare local and seasonal fruits and vegetables and items found in emergency food boxes. We also learned that residents value food as a way to build relationships and foster a sense of community and belonging.



**“Food is a way of bringing family together.”**

*- Participant Quote*



## Quality Is Important

Residents are concerned about the quality of food available. Residents want ripe, seasonal, healthy, organic produce



## Affordability is a Problem

Affordability is an issue. Many people are unable or unwilling to pay high prices for the quality food they feel they deserve.



## Stores Are Not the Same

Many people felt that they did not have the same high quality grocery stores that are common in communities where there is more investment.



## More Information is Needed

Community members want more education on nutrition, community resources, gardening, and how to cook.



## Food Builds Connections

Food is very important in social connection. Sharing food is a way to show love and build relationships. Food connects people to each other to their community.

## CASE ILLUSTRATION

# Glendale Community Food Conversations & Glendale Strong Family Network

The Glendale Strong Family Network is a multidisciplinary collaborative working to connect families to the services they need, and to develop natural leaders to strengthen the Glendale community.

MarCo partnered with a trusted local leader from the Network to help with Spanish facilitation and outreach for the Glendale Community Food Conversations. As a result, the community members she invited not only showed up to the first conversation, but also came back a month later to the second conversation. Many of the individuals who attended were local promotoras, or community health workers who provide health education and outreach services within their own communities. Promotoras serve as a bridge between their communities and the formal healthcare system, and are in a unique position to share information about food, wellness, and other Coalition efforts through their existing

social networks. The promotoras who attended the conversations were interested, engaged, and eager to collaborate with MarCo.

During these conversations, the promotoras shared that they would like more information on healthy eating, cooking, and local resources. Participants also see food as the key ingredient in connecting people to one another and to their community. Inspired by these findings, the Network is already underway in planning and organizing their first community food gathering, in partnership with MarCo and other local organizations. At this free event, families can enjoy simple cooking demonstrations led by local chefs, bring home healthy recipes, and learn about local resources and services within Glendale. The Network sees this as the first of many future opportunities to engage with the community around food.

# Agriculture in Maricopa County



## On-Farm Agriculture is Important for Maricopa County's Economy

Maricopa County continues to be a state and national leader for the production and value of many agricultural products according to the USDA 2012 and 2017 Census of Agriculture. The top crop and livestock industries in Maricopa County based on total sales in 2017 are milk from cows; vegetables, melons, potatoes and sweet potatoes; and horticulture and nursery.

According to a recent economic contribution analysis

conducted by the University of Arizona<sup>1</sup>, on-farm agriculture in Maricopa County is a \$1.95 billion per year industry including direct, indirect, and induced multiplier effects. The total value-added contribution, also known as gross state product (GSP), was \$831 million, including \$586 million in labor income, \$192 million in profits and other property type income, and \$52 million in taxes on production and imports. On-farm agricultural production directly and indirectly supported roughly 14,200 jobs in the Maricopa County economy, of which an estimated 9,190 were directly supported on-farm. These estimates include full- and part-time jobs as well as both hired labor and farm proprietors.



#1

In Arizona for total market value of agricultural products sold



#1

In Arizona for value of sales from milk, poultry and eggs, and nursery products



top 1%

Of counties in the nation for production of vegetables, melons and potatoes



49%

Of farms reported less than \$2500 in annual sales



91%

Of farmland was operated by 203 total farms, or less than 8% of all farms



95%

Of all county sales came from just 186 farms which represents less than 10% of all farms



59%

Per farm average of market value of products sold (From 2012)



\$16,809,000

In farm sales of products direct to consumers, over 8 times that figure from 2012



\$126,358,000

In farm sales of local or regionally branded products to retail markets, institutions & food hubs (no comparable data for 2012)

Sources: USDA 2017 and 2012 Census of Agriculture; Duval, D. et al. (2018). Contribution of Agriculture to the Maricopa County and Gila River Indian Community Economies. Tucson, AZ. Department of Agriculture and Resource Economics. The University of Arizona.

<sup>1</sup> Duval, D. et al. (2018). Contribution of Agriculture to the Maricopa County and Gila River Indian Community Economies. Tucson, AZ. Department of Agriculture and Resource Economics. The University of Arizona. Retrieved from [https://cals.arizona.edu/arec/sites/cals.arizona.edu/arec/files/publications/contrib\\_ag\\_maricopa\\_county\\_GRIC\\_economies.pdf](https://cals.arizona.edu/arec/sites/cals.arizona.edu/arec/files/publications/contrib_ag_maricopa_county_GRIC_economies.pdf)

STATISTICS:

# Agriculture in Maricopa County



**474,438**

Acres of Farmland



**1,874**

Farms (Down 24% from 2012)

**54%**

Cropland

**38%**

Irrigated Cropland



**34,718**

Acres of Available Cropland  
(From 2012 to 2017)



**9,634**

Acres of Actual Harvested  
Cropland (From 2012 to 2017)



**55%**

Of Harvested Cropland  
Produced Forage Crops Like  
Hay



**15%**

Of Harvested Cropland  
Produced Cotton



**12%**

Of Harvested Cropland  
Produced Vegetables, Melons &  
Potatoes



**93%**

Of Farms are Family Owned



**9%**

Sell Directly to Consumers



**1%**

Farm Organically According to  
USDA Certification  
Requirements



**25%**

Of Producers Are "New &  
Beginning Farmers" (Less Than  
11 Years on Any Operation)



## Water & Land–Use Trends for Agriculture

Irrigated agriculture is the biggest water user in Arizona, even more than people. In Maricopa County, it totals about one-third of the county's water use. Water for agricultural production comes from three main sources: local groundwater, surface water from the Salt and Verde Rivers, and from the Colorado River which comes through the Central Arizona Project canal.

About half of the water that County farmers use comes from groundwater, which County farmers as a whole are withdrawing faster than they are replacing it, creating unsustainable overdraft circumstances. Regulations to conserve groundwater began with the 1980 Groundwater Management Act, which prohibits the creation of new farmland in these Active Management Areas and converts unused farmland to other uses such as residential and commercial development. Recent population booms and urban sprawl have worked hand in hand with these groundwater policies to drastically reduce the amount of available irrigated farmland and increased the value of land in favor of development. More than half of all the irrigated farmland ever created in the County has now been converted to urban development.

Continued drought, climate change, and demand for water and land by municipalities is expected to increase competition and costs, making it increasingly difficult for farmers to afford these productive resources. As the leasing or sale of agricultural lands remains more appealing, this results in continued loss of productive agricultural lands.



# 6,900

acres lost per year of  
agricultural land  
irrigated by groundwater

## CASE ILLUSTRATION

# Agriculture in the Gila River Indian Community

The Gila River Indian Community (GRIC) is located within the Phoenix metro area in both Maricopa and Pinal Counties. The Akimel O’otham and their ancestors practiced agriculture along the Gila River for centuries before the arrival of the Europeans, growing corn, beans, and squash, among many other crops. In the late 19th century, American colonization resulted in the theft of their life-giving water and dramatically cut back the community’s ability to farm and sustain themselves. The effects of losing water in the Sonoran Desert and farmland are far-reaching. For example, the rapid transition to the American diet and food system, particularly through forced reliance on US Government food distribution programs, the community now experiences some of the highest rates of Type 2 Diabetes in the world.

After a long legal struggle to regain their water rights, GRIC is now opening up options for themselves to remedy these injustices, including expanding their capacity to grow more food. GRIC currently plans to more than double their current acreage of irrigated cropland.

**In 2012, GRIC reported 38,498 acres of cropland which mainly grew hay, cotton, and corn silage. In that same year, the 41 farms located within GRIC produced a total of \$38.4 million in farm sales, with only 3% of those sales going to farms operated by American Indian or Alaskan Natives. Similar to other parts of Maricopa County, the leasing of agricultural land to producers is common in GRIC.**

# Local Food Systems Policies & Regulations



## How Do Public Policies & Regulations Impact the Local Food System?

It can be difficult to understand the impact that public policies and regulations have on the local food system. This may even be the case for parties working directly on food system development. For example, stakeholders interested in improving access to healthy food in a community may have a desire to encourage community food production; however, existing policies and regulations can either make it streamlined or challenging to acquire the land, water, and other resources necessary to do so.

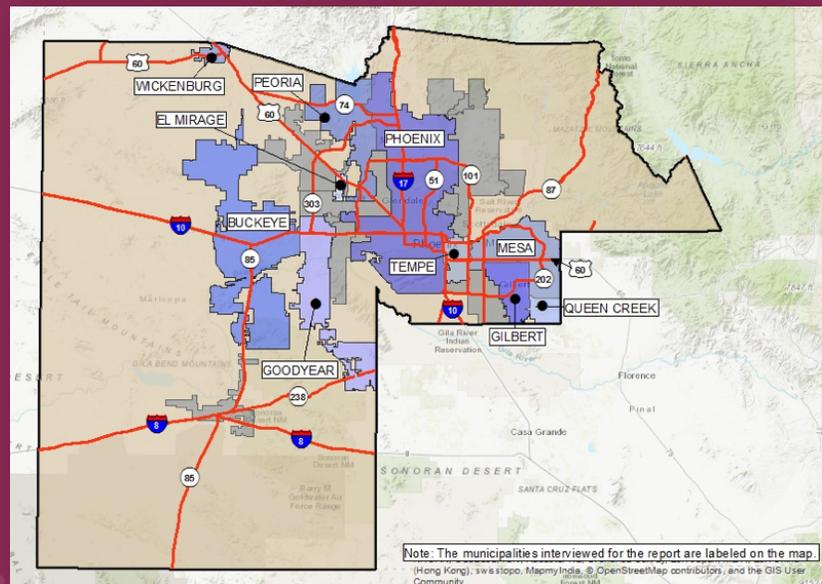
Most local governments do not have a “Department of Food.” Rather, decisions made by many different departments and offices play a role in how food is produced, distributed, purchased, and protected within communities. One way in which local government decisions are made and coordinated across agencies is through long-range city planning efforts. In Arizona, cities and towns are required by state statute to develop and periodically update General Plans, which guide the development of its respective municipalities for coming decades. Counties engage in similar processes to develop Comprehensive Plans which guide development of municipalities for coming decades. These planning processes require municipal staff to work with various stakeholders and community members to establish agreed-upon themes, goals, and policies that help guide future local decision-making. General and comprehensive plans focused on improving the food system will, for example, include language calling for specific measures to support local food production and to improve access to healthy food. A supportive “policy environment” established in planning processes can lead to healthier and more sustainable food environments, as well as food related economic growth.

Additionally, local governments can adopt zoning provisions in their zoning regulations or zoning codes to support the local food system such as: transfer of development rights to preserve agricultural lands;

standards that allow for various forms of small-scale, community-based agriculture that allow people to grow food or raise food producing animals (e.g., chickens, rabbits, bees) on public or residential property; and permit structures (e.g., greenhouses, shipping containers) or activities (e.g., farm stands, farmers markets, hydroponics/aquaponics) that help make local agricultural practices more successful.

## Local Food Systems Policies at Work in Maricopa County

The MarCo Policy Work Group partnered with The Planning Center to collect, examine, highlight and recognize public policies and regulations adopted by municipalities across Maricopa County that relate to, support, and advance the local food system. Information was gathered from ten diverse municipalities across Maricopa County through an online survey as well as detailed in-person interviews with city or town staff. Staff who were interviewed represented planning, sustainability, public works, and economic/community development departments. Further research was also conducted through analysis of municipal policies and regulations, especially around zoning.



MarCo Public Policy Project Municipalities Interviewed



POLICY THEMES

# Highlights & Best Practices from Local Municipalities

## Planning for a Healthy Food System

- ◆ Of the municipalities interviewed: Buckeye, Goodyear, Gilbert, Phoenix, Tempe, and Queen Creek General Plans specifically include policies that support the local food system.
- ◆ The Buckeye General Plan includes a goal that all Buckeye residents have access to healthy food options. Supporting policies for the goal include a healthy food option study, amendments to zoning regulations to permit urban agriculture; working with HOAs to relax private garden restrictions and to provide community gardens; establishing more healthy food outlets in commercial areas; and edible landscapes.
- ◆ Phoenix is the first city in the region to develop a Food Action Plan (currently in-progress), which will help it obtain broader food system goals identified in the Phoenix General and Sustainability plans.
- ◆ Tempe is working to include fruit trees and edible landscapes into the City's Urban Forestry Master Plan.

## Supportive Zoning Regulations

- ◆ Mesa zoning regulations permit community gardens in agriculture, residential, commercial and mixed-use districts and encourage hydroponic gardening and unique food production methods, such as growing in portable storage containers.

## Economic Development

- ◆ Queen Creek embraces its food heritage by supporting an Agritainment District, which supports existing farm operations but also makes small capital investments in food business incubators.
- ◆ The Gilbert Agritopia Ordinance helped establish a Master-Planned community that combines residential and retail development with agriculture land uses such as community gardens, an urban farm, and related uses. Agritopia serves as a destination for Gilbert residents and residents of other communities in Maricopa County, thus further supporting economic development.

## Encouraging Local Food Production

- ◆ El Mirage supports a thriving community garden in a centrally-located, walkable area in the community directly adjacent to a senior center, library, city park, school, and other government facilities.

## Resident Education & Engagement

- ◆ The Peoria Sustainable University (Sustainable U) engages and empowers residents to make small changes that help make the city a better place to live. Topics addressed through Sustainable U include landscape watering and design, gardening, composting, and recycling.

## CASE ILLUSTRATION

# Phoenix's Ground-Breaking Food Action Plan

The Phoenix Food Action Plan emerged from the City's commitment to developing a healthier, more sustainable food system in its PlanPHX General Plan (2015) and its Environmental Sustainability Plan (2016). In order to reach the goal of ensuring that all Phoenix residents have access to fresh, healthy food options by 2050 (but hopefully much sooner), city staff recognized the need for a process to bring organizations and community members together to have conversations that lead to relevant, appropriate, and specific food system goals and actions.

MarCo's Policy Work Group helped the City

develop earlier food system goals, and continues to work closely with the city to develop its Food Action Plan. Specifically, the PWG hopes to assist with: the development of zoning and land use policy that helps expand urban agriculture; procurement contracts that encourage purchasing of local foods; and creation of additional incentives, programs, and infrastructure that support small and medium scale farms within the City limits.

The Phoenix Food Action Plan is the first of its kind in the region and will include area specific plans for the South and West Phoenix communities specifically.

## CASE ILLUSTRATION

# Queen Creek's Agritainment District Embraces Town's Food Heritage

The Queen Creek General Plan not only states the importance of healthy communities that provide residents access to healthy food, but also includes a 2015 South Specific Area Plan (SSAP) that includes land use categories that preserve and protect important agricultural establishments such as Schnepf Farms and the Queen Creek Olive Mill. These categories added to the existing Sossaman Farms Growth area.

Along with adopting the SSAP, Zoning Ordinance was amended to recognize and support the expansion of an Agritainment District. The planning and zoning measures

work together to provide strategic growth for agricultural lands that preserve Queen Creek's agricultural heritage, setting the town apart from its neighboring communities, and providing a unique experience for visitors.

The Agritainment District is a key driver for the town's economic development strategy, bringing in millions of dollars of revenue annually. The town hopes to expand the District and position Queen Creek as the Agritainment Capital of Arizona – a destination for wineries, breweries, distilleries, creameries, bakeries, and other value added food businesses.



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## Building Community Food Networks Through Community Foods

### Community-Based Food Systems

Systems of exchange that strive to bring food consumers and food producers into affinity with each other, for the purposes of fostering community, health, wealth, connection, and capacity for long-term food security.

### Community Food Networks

Unique social and commercial connections based on mutual trust, shared values, and reciprocity that drive the regeneration of community-based food systems.

## Shifting from "Local Food" to "Community Food"

Knowledge of basic farm characteristics, food access, and existing local food assets is valuable; however, that does little to enhance our understanding of how different food system actors (specifically producers) are connected to one another, or how well they are faring in the current food system. In order to explore these issues further, FACT partnered with Ken Meter of Crossroads Resource Center to conduct Key Stakeholder Interviews and Social Network Analysis with a sample of producers, decision-makers, champions, and content experts involved in the local food network. This marked an important shift in MarCo thinking and practice, where we collectively chose to be more deliberate in thinking about "Community-Based Food Systems" and "Community Food Networks," as opposed to "Local Food Systems." The key distinction has to do with putting people and their relationships at the center of our thinking and efforts, as opposed to mere geographic or location-based boundaries.

Ken and his colleague Megan Goldenberg interviewed 33 key stakeholders identified by MarCo Members and Friends in the summer and fall of 2018. Interviews focused on what is working well and what is not working well with the community food system, according to each stakeholder. Ken and Megan also performed Social Network Analysis by exploring each stakeholders' top five partners in terms of information sharing, advice, and financial exchange.

The full report of this assessment component includes valuable profiles of the numerous highly-skilled, regional farmers and their committed and engaged partners,

especially area-independent distributors and food system leaders. The strong and diverse consumer markets available in the Phoenix metro area pose impressive market potential for food grown, and value-added products in the region. On the other hand, consumers and civic leaders have limited interest in, and commitment to "local food." Farmers reported feeling increasingly isolated and face many challenges, including scarce labor and supportive infrastructure such as processing.

Most importantly, farmers growing for local markets lack trusted organizational representation in MarCo and across many other decision-making bodies at various levels. Food system groups are typically overrepresented by non-producer stakeholders and members from groups with historically better and more reliable access to healthy foods and other forms of privilege. This lack of diversity and equitable inclusion of diverse stakeholders is a major weakness in MarCo's mission to build a Community-Based Food System based on connections, trust, shared values, and reciprocity.



## CASE ILLUSTRATION

# Sun Produce Co-operative

Sun Produce Cooperative (SPC) is a multi-stakeholder agricultural and marketing organization established in 2017, that includes agricultural producers, distributors, buyers, and market specialists. The co-op's most active 8 growers currently have approximately 215 acres in production in the Central Arizona Region. Planting and harvesting year-round, they are able to offer a variety of more than 80 fresh and local items per season. Many SPC members participated in key stakeholder interviews for the "Building Community Networks through Community Foods" report included in the food assessment.

SPC's mission is to create viable alternative distribution streams for Arizona's smaller-scale producers; reduce barriers to market entry; gain economies of scale through its aggregate size; and leverage cooperative branding, marketing, and supply purchasing efforts. The co-op model supports its members in combining product volume and

variety, as well as creating greater ease of access to resources and expertise in order to expand reach into new markets. SPC connects increased consumption of local food for better overall individual and community health, to farm viability and economic development.

The co-op is relatively new to the local food system and has faced challenges in scaling up their programs to serve larger communities. However, they've met these challenges with enthusiasm and innovative ideas. They have made much progress in becoming recognized by institutions who now collaborate with the co-op in programs such as Farm to School and the FarmRaiser/Healthy Fundraiser program. They've also gained synergy during their two years of operation, and work hard to coordinate farmer-member production, aggregation, and distribution to increase sales of locally-produced fruits and vegetables.

# Mapping Local Food Assets with Good Food Finder AZ

In 2014, Local First Arizona Foundation acquired and relaunched [Good Food Finder](#), a directory of farmers and food producers in the state of Arizona, as part of their Local Food Initiatives. Good Food Finder aims to help the public get to know the diversity and abundance of food produced in the state, support producers as they grow their business, and bring awareness to the importance of agriculture and its role in the state's history and economy. As part of the overall assessment, Good Food Finder's directory was used by FACT to inventory

and categorize relevant food businesses in Maricopa County.

Additionally, the relaunch of Good Food Finder was guided by the results of the assessment: after recognizing a need to better connect growers and eaters with one another, Local First Arizona Foundation updated Good Food Finder in May 2019 to become more user-friendly and provide even more resources that are useful for growers, families, and food buyers in Arizona. Now,

## Farmers & Food Businesses Can Explore:

- ◆ A directory of resources organized to better connect producers to farmers markets to sell their products, locally grown ingredients to incorporate into their value-added products, and local suppliers.
- ◆ Tools to help businesses expand their customer base, grow and scale their farm business, and more.
- ◆ Launch the AZ Food Producers Opportunity Facebook Group, where farmers and food businesses at all stages are provided with connections, support, and opportunities to leverage their localness and find mentorship.

## Eaters Can Explore:

- ◆ Local sources for their groceries and ingredients locally
- ◆ Information about cooking local, including what is in season, where to buy ingredients, and recipes from local food bloggers
- ◆ How to start and maintain a desert garden, including resources on growing seasons and where to turn to for technical assistance.
- ◆ Options for food assistance, including links to programs to help Arizonans purchase local produce from farmers markets.

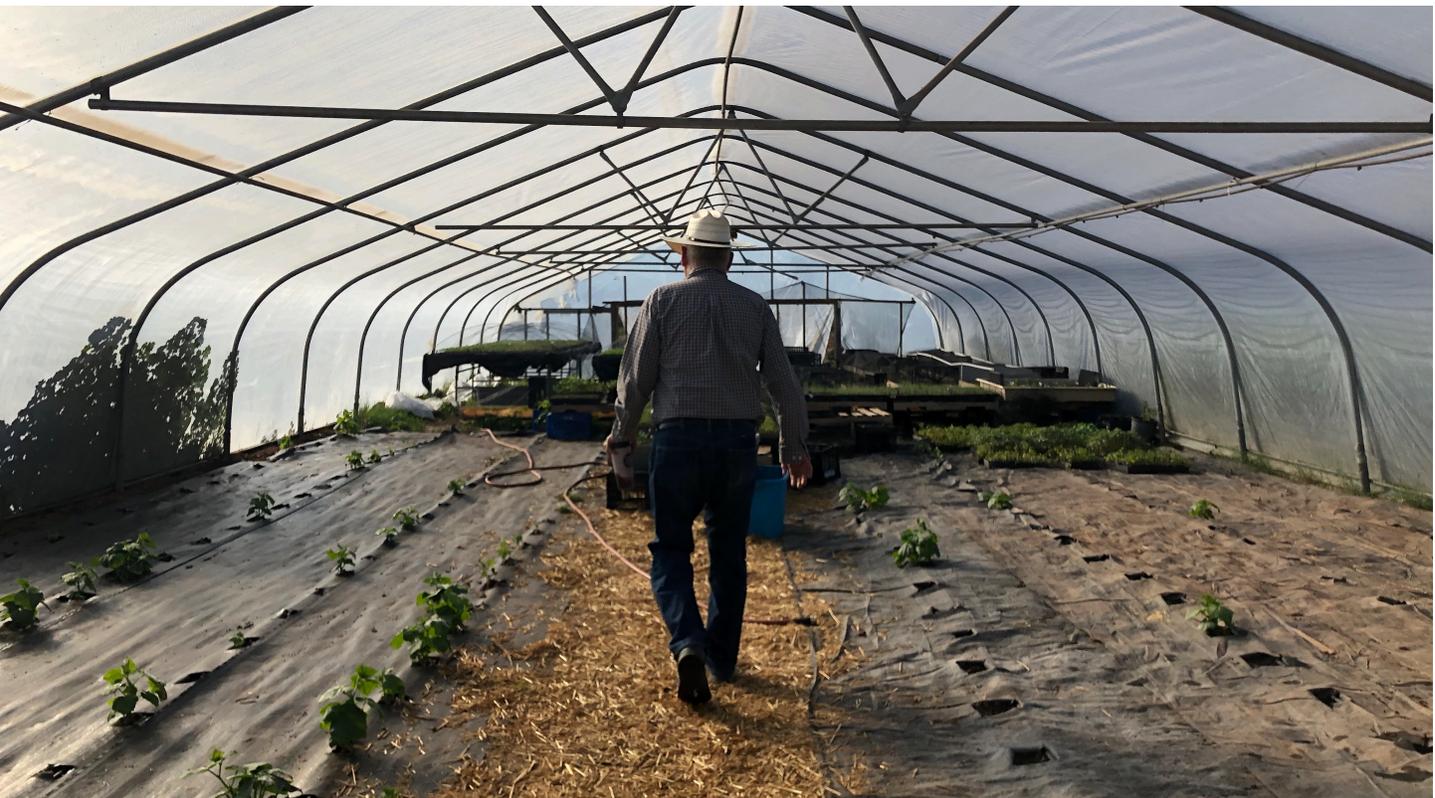
Local First Arizona Foundation is invested in making Good Food Finder a go-to trusted resource for Arizona's producers and a platform that provides direct conduit to experts and new business opportunities. It

has been, and will continue to quickly develop into a valued resource that not only strengthens connections between growers and eaters, but also helps to develop new ones.

# Threats to Achieving a Robust Community Food System for Maricopa County

This food assessment focuses on how our food system operates within the limited scope of Maricopa County and the Central Arizona Region. However, it is important to recognize that local food systems are almost always influenced by, and interdependent with, national and global food systems. These national and global forces can be both beneficial and harmful to county growers, eaters, and the networks that link the two. MarCo seeks to support and grow a food system in Maricopa County that is equitable, healthy, sustainable, and thriving. In achieving this mission, MarCo Members and Friends primarily focus on our ability to influence factors at the county, regional, and state levels.

The results of this food assessment identify key external factors at multiple levels that challenge our ability to grow, process, distribute, and sell healthy, sustainably-produced foods in ways that build trust, reciprocity, and community among eaters, growers, and networks that exist within our region. Failure to address these challenges will make Maricopa County residents increasingly reliant on global food systems, non-local food decision-makers, and global food economies.



## **The potential to grow our own food is small & shrinking.**

- ◆ Agriculture in this arid climate must compete with urbanization to hold onto the land and water it needs; both of which are heavily regulated in favor of urban development.
- ◆ The cost to purchase or rent farmland in Maricopa County is too high for most farmers, as supply decreases and competition from urban land uses increases.
- ◆ The average farmer is 60 years old, and many are considering leaving the profession or moving elsewhere. Growing and sustaining new farmers is extremely difficult.
- ◆ As the population of Maricopa County continues to grow, pressures to convert agricultural land to urban development will result in the reduction of agricultural production, eventually leading to a need to seek alternatives for food production.

## **Many decision-makers, and some local food champions, are unaware of how certain municipal policies & regulations can negatively impact food systems.**

- ◆ Decision-makers often lack awareness about the limitations of relying on a globalized food system, and therefore tend to not see the value of developing forward-thinking policies that make it easier for residents to grow, distribute, and sell community food.
- ◆ Some decision-makers view local food as “trendy” or “a fad,” rather than a necessity for the health of residents, the sustainability of the environment, and the success of local economic development initiatives.
- ◆ As the fastest-growing county in the United States, municipalities throughout Maricopa County are now prioritizing and incentivizing development, at the cost of agricultural land and related resources. Rapid development and loss of agricultural heritage counteract progress being made to preserve and expand local food production.
- ◆ Many local food champions tend to look to programmatic or educational solutions to food issues as opposed to upstream, policy-based strategies.

## **We are becoming increasingly dependent on federal support to ensure a healthy & thriving food system.**

- ◆ Maricopa County residents and organizations rely on \$900 million in federal aid each year to provide food relief to low-income residents - roughly the same amount of money that farmers earn selling alfalfa, cotton, vegetables, and grains for export.
- ◆ According to the USDA, the average farm in Maricopa County now relies on nearly \$30,000 a year in government payments, having increased nearly 34% since 2012.

## CASE ILLUSTRATION

# The Justice Brothers Ranch: An Uncertain Future

The Justice family, who have lived in Arizona since 1885, founded the Justice Brothers Ranch in 1928. Located in Waddell, the Ranch boasts the title of longest continually-operated citrus orchard in Arizona. Over the years, they have grown cotton, alfalfa, and wheat; though they now primarily raise cattle for slaughter, forage crops, and grow citrus. The farm is nearly 200 acres and leases an additional 200 acres, putting the Justice Brothers Ranch in the top 10% of farms in Maricopa County by size. Selwyn Justice, age 30, is the fourth generation to work the Ranch and has experienced firsthand the dramatic changes to agricultural water, land, and supply chain infrastructure across the region.

As a member of the McMicken Irrigation District, Selwyn is accustomed to cooperating with his neighbors and the Arizona Department of Water Resources to access groundwater for the Ranch. This irrigation district, like many others across the valley, employs a one-landowner, one-vote system for electing their board. The Ranch used to have one active agricultural groundwater well, but minor seismic activity has since crushed the well casing, rendering it useless. Due to the good relationships and infrastructure within the district, the Ranch now purchases water from a neighbor.

Most of the citrus from the Ranch is sold and consumed locally; however, the Ranch has not always used these channels. Selwyn stated, "I'd like to stay here forever, but our processing has gone away. We used to be a Sunkist grower, then we sold to a middle man between us and local consumers. Now we operate with a direct-to-consumer U-Pick operation." The loss of local food supply chain infrastructure as

a direct result of decreasing local production resonates for many in the Valley, who remember the once expansive citrus orchards and the picking, processing, and packing jobs that came with them. The Ranch's meat sales are now also shifting from an intermediary model to a direct-to-consumer model, with the idea of performing their own on-site processing in the future.

As a family farm that has been in operation for over 9 decades, the Justice family has seen the urban core expand out toward them, witnessing countless farms transition to urban development. When considering if the Ranch is at risk from the quickly and ever-expanding development, Selwyn notes that the land is in a fly-zone for Luke Air Force Base and as such, there is a residential building freeze. Even so, a neighbor of the Justices recently sold their land to an industrial developer. When lamenting this development he has witnessed, and the lack of infill and high-density housing, Selwyn stated, "[a]s long as I have to share the Valley with this kind of development, I'm frustrated."

Selwyn, who now has a six-year-old daughter, has made it a priority to afford her the same opportunity he was able to experience on the Ranch, through at least her high school years. While contemplating how the region's market in land has failed to preserve Valley farms over the past few decades, Selwyn concluded, "[t]he idea of using houses as an investment opportunity, as opposed to shelter—there's something wrong with that. A house is supposed to be a home, not a speculative investment."



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## Opportunities

A Safeway supermarket near 35th Avenue and Northern in Phoenix succumbed to a fire during the summer of 2018. This site will soon be home to a new fitness center and gym, making it immensely more difficult for the approximate 1,000 households without vehicles in its adjacent census tracts to access affordable and quality supermarket foods. This is but one of many local examples of food system decisions that are made without a

comprehensive understanding of direct impacts to resident food access and the regional food economy. In conclusion of the Food Assessment process, FACT has identified the following key opportunities for MarCo Members and Friends to focus our education and engagement efforts around, in our collective attempt to inform food system-related decisions and ensure a food system that is equitable, healthy, sustainable, and thriving.

## **Convene informal meetings in which diverse farmers build trust among each other, and ultimately with diverse civic leaders.**

- ◆ Convening farmers is one of the foremost opportunities identified in the food assessment, to address isolation and improve awareness around the unique needs of growers (many of whom are identified in the previous Threats section), while also building trust, social capital, and new networks.
- ◆ At these meetings, it is recommended that civic leaders explore and commit to specific actions that will help build community-based food systems in the region.
- ◆ Efforts to build trust among farmers and other stakeholders are needed to set the stage for future collaborations and infrastructure development.

## **Advocate for public policy and investment that fosters community health, wealth, connection and capacity.**

- ◆ There is a need to work with municipalities, to educate on the benefits of developing General Plan goals and policies, zoning regulations, and economic development strategies that will help to preserve existing agricultural land, advance opportunities for urban agriculture, and support the growth of healthy food retail options. Examples from other successful municipalities across the nation can be customized to unique Maricopa County communities and jurisdictions.
- ◆ Established goals, policies, and regulations that support local food system development will help to inform local decisions and to direct funding and other valuable resources to these municipalities that can make their food system development projects successful and sustainable.
- ◆ MarCo can engage with other stakeholders to engage in advocacy efforts at the state and federal levels, in order to help ensure supportive policy environments and adequate allocation of resources at local levels.

## **Explore new and diversified markets that are scalable and flexible to meet the needs of small to medium-sized producers.**

- ◆ Interest in, and support for Farm-to-Institution expansion, the creation of local produce cooperatives, regional food hubs, food business accelerators, and diverse value-added food businesses is rapidly growing throughout Arizona.
- ◆ With broad-based support, high-level coordination, and the appropriate infrastructure, these strategies and more have the potential to open up entirely new market opportunities for regional growers- ultimately increasing local wealth and economic multipliers.

## **Implement an “Eat Local” campaign to support local producers and ignite pride in regional food.**

- ◆ If every Maricopa County resident were to spend \$5 per week on food from a regional farm, local farmers could generate an additional \$1.1 billion in sales each year. This increase is greater than the combined yearly income of all Maricopa County farms today.
- ◆ An “Eat Local” or similar type of education and outreach campaign has been successful in other states such as Alaska and South Carolina; and represents a promising opportunity to boost spending with community food producers, promote health, and retain local wealth through economic activity generated in the region.

## **Continue to engage eaters using equity and justice approaches with a focus on food in building community, food access solutions, and food quality and value.**

- ◆ Individuals across Maricopa County have expressed the value of food in building relationships and fostering the community. Engaging eaters, especially those currently underrepresented in the Coalition, could enhance local capacity to advocate for food system transformation and ensure the co-creation of meaningful food access solutions. This type of effort is becoming popular across the nation.
- ◆ In Minnesota, the Northside Fresh Coalition recently developed a Policy Action Team to proactively bring community members into the food policy-making process. This Policy Action Team suggests recommendations based on a collective vision of food justice.
- ◆ In Maricopa County, continuing Community Food Conversations and initiating additional community food gatherings will be carrying on in South Phoenix and Glendale, as a direct result of engaging with, and gaining representation from community members with lived experience, throughout this food assessment.

# Credits & Acknowledgments

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