

# Samuel J. Crumbine Excellence in Food Protection Award

## Maricopa County Environmental Services Department

Environmental Health Division  
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Phoenix, AZ 85004





# Environmental Services Department



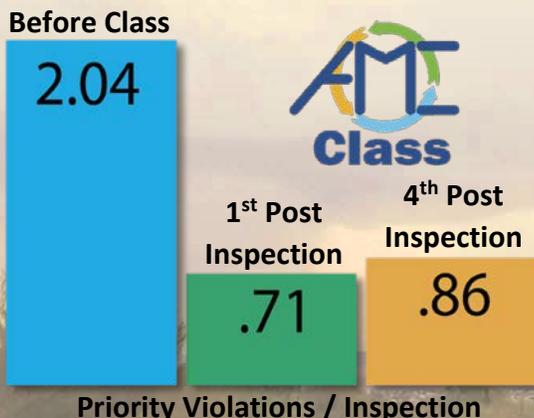
## Executive Summary

Maricopa County, which includes the greater Phoenix area, is the fourth most populous county in the nation, encompassing over four million residents. With a booming tourist industry and phenomenal wintertime weather, the Phoenix metropolitan area, a.k.a. the Valley of the Sun, welcomes an additional 22 million visitors every year. According to the Arizona Restaurant Association, Arizona’s restaurant industry generated \$12 billion in revenue and employed almost 300,000 people in 2017. The Environmental Health Division, of the Maricopa County Environmental Services Department (MCESD), has been responsible for regulation of food service establishments in the Valley of the Sun for over 60 years.

As a Crumline Award recipient in 2001, the Maricopa County Environmental Health Division has not rested on its laurels – even with significant changes to the management team and the elected Board of Supervisors. In addition to continuing successful programs for computer-based inspections, public access to inspection data and risk based inspections, MCESD is now focused on incorporating, promoting, and assessing Active Managerial Control (AMC) throughout the food inspection program. MCESD recognizes that true food safety starts with a knowledgeable industry management population and is supplemented with the food safety expertise of local regulatory personnel. This is especially true for local, independent operators who lack corporate food safety resources.



MCESD has developed several programs that are designed to assist food service operators in incorporating AMC in to their every-day activities. The Cutting Edge program encourages AMC by promoting development of policies, food service worker training, and verification of policy compliance. An AMC class was developed to bridge the gap between the knowledge gained through certified food protection manager training and application of this knowledge during daily food service activities. MCESD received a grant from the U.S. Food & Drug Administration (FDA) to develop an AMC toolbox which will include video training on foodborne illness risk factors. Future inspection reports will include links to training videos related to documented violations. To date, the AMC initiative has been successful in reducing food establishment enforcement actions by 41%.



MCESD continues to emphasize communication as a key to fostering relationships. Scheduling regular meetings with industry associations and holding public forums to discuss process improvements are two ways to improve transparency and communication with stakeholders and citizens.



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## Part I: Program Basics - Demographics

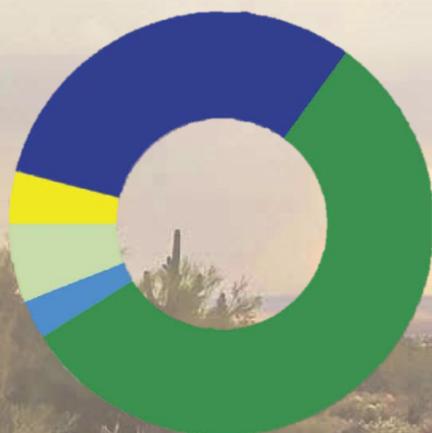
Maricopa County, located just southwest of central Arizona in the Sonoran Desert, was established in 1871. Named after the Maricopa Indians, it is the most populous county in Arizona and the fourth most populous in the nation. As the 15th largest county, it covers approximately 9,200 square miles (about the size of New Hampshire) and is comprised of twenty-three cities with Phoenix, Scottsdale, Mesa, Glendale, Chandler and Tempe at its core. According to the 2016 census, over four million people lived in Maricopa County, which accounts for 61% of Arizona’s population. The population has increased 11.2% since 2010, more than double the 4.7% average for the United States in the same time period. Many of the fastest growing cities in the United States can be found in Maricopa County.



It is estimated that 22 million people visit the greater Phoenix area annually. With a combination of first class athletic infrastructure and daytime winter temperatures in the 60s and 70s, the county is an attractive location for large sporting events. The county is home to franchises in the four major professional sports leagues with the Arizona Diamondbacks (MLB), Arizona Cardinals (NFL), Phoenix Suns (NBA), and Arizona Coyotes (NHL). It is also home to Cactus League Spring Training, which includes fifteen Major League Baseball teams that play at ten different stadiums and draw about two million fans per year. Other yearly events include the Waste Management Phoenix Open, two NASCAR races and two NCAA college football bowl games (Fiesta Bowl and Cactus Bowl). Other large sporting events that have attracted out-of-state visitors include the Super Bowl (XXX in 1996, XLII in 2008 and XLIX in 2015), the NCAA College Football Playoff National Championship (2016) and the NCAA Men’s Basketball Final Four (2017). The county also includes large universities like Arizona State University and Grand Canyon University and regularly attracts new smaller colleges and universities.

About half the population of the County is Caucasian with Hispanic as the largest minority. Maricopa County is uniquely diverse, as 26.5% of the population speak a language other than English at home, compared to 21.0% nationally.

**White (56%) Hispanic (31%)**  
**African American (6%) Asian (4%)**  
**Native American (3%)**



Due to the large population fluctuations, large land area, and a vast array of special events, the county has an abundant and diverse work load. As of the fiscal year 2017, Maricopa County had 26,634 food permits – each requiring two to four inspections per year. Another 3,214 plan review applications were processed during fiscal year 2017, a 10% increase from 2015. Permits are issued with varying classes and inspection frequencies depending on the risk associated with the menu variety and food preparation methods. Of the major permit types, there are 13,045 eating and drinking (E&D), 2,813 retail food, 877 school food service, and 383 food production permits. Over the last six years, Maricopa County conducted 530,906 total inspections, including 404,906 comprehensive food establishment inspections, 22,342 Special Event inspections, and 19,487 Mobile Food inspections.



# Environmental Services Department



## Part I: Program Basics - Resources

The Environmental Health (EH) Division of the Maricopa County Environmental Services Department operates on the principle of full cost recovery – mostly through permit fees paid by the regulated community. Environmental Health had \$13.9 million of revenue for the 2017 fiscal year. Fees for the different permit classes are listed in the table below.

MCESD allows non-profit organizations to apply for permit fee waivers. The Maricopa County Board of Health approves the application of the non-profit organizations and then the Maricopa County Board of Supervisors reimburses the department from general tax dollars, so the additional costs are not passed along to paying permit holders. The department was reimbursed for about \$430,000 in permit fees for non-profit organizations in fiscal years 2012 through 2017.

Permit Class	Permit Fee Range
<b>Class 1</b>	<b>\$60 - \$220</b>
<b>Class 2</b>	<b>\$120 - \$1020</b>
<b>Class 3</b>	<b>\$100 - \$650</b>
<b>Class 4</b>	<b>\$465 - \$1540</b>
<b>Class 5</b>	<b>\$590 - \$1030</b>

MCESD has been awarded several grants over the last few years. The largest grant, a five-year cooperative agreement with the U.S. Food & Drug Administration (FDA), provides \$70,000 per year to develop educational strategies for reducing the occurrence of foodborne illness. The funds have been used to conduct a risk factor survey (Standard 9 of the FDA Food Program Standards) and develop an Active Managerial Control (AMC) toolbox consisting of training videos, templates of policies/logs, and visual material (stickers, guidance documents). Interns were hired to assist with the development of the toolbox.

In 2016 and 2017, the county was awarded a grant to send four employees to the FDA Pacific Region Retail Food Protection Seminar. A grant from the Association of Food and Drug Officials (AFDO) for \$3,786 allowed two supervisors to attend the 2017 Food Safety Preventive Controls Alliance (FSPCA) Preventive Controls for Human Food course in Chicago, IL.

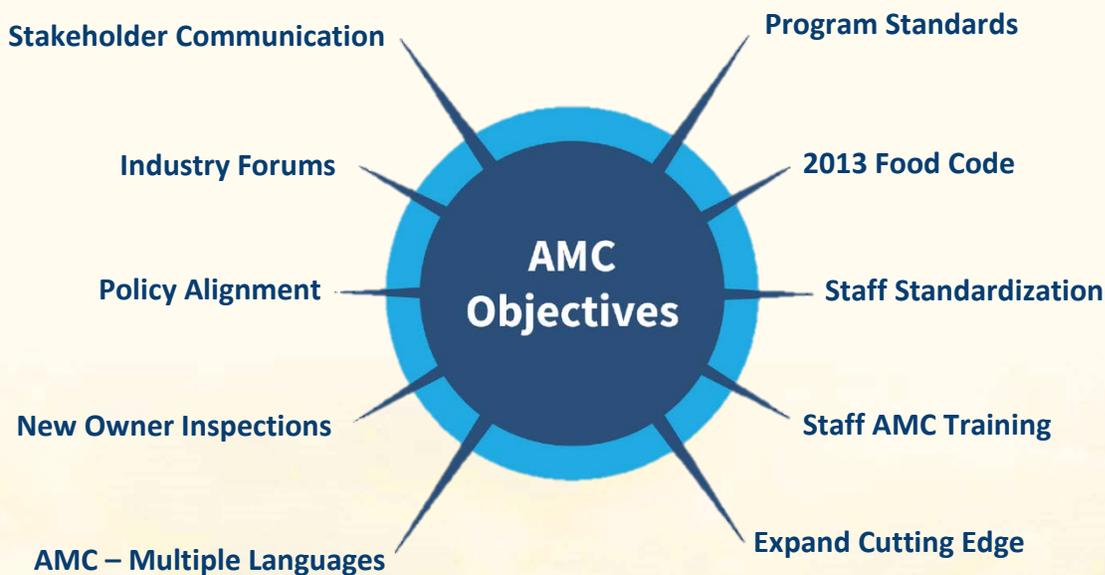
The EH Division is one of several divisions in the Environmental Service Department. Environmental Health includes one main administrative office, four regional offices and a mobile food office. Within those facilities are specialty programs for chain food/institutional care (including large food processors) and permitting services (plan review/construction/new owner approval, special events, and mobile food plan review/inspection). EH consists of a Division Manager, 5 Managing Supervisors (one for permitting services and each regional office), 18 Supervisors, 13 Environmental Health Specialist (EHS) Senior positions and 78 EHS field staff. Additional staff are employed in environmental related illness, enforcement, training and language liaison programs, which fall under the Quality and Compliance Division. Environmental Health and Quality and Compliance work closely together to form a comprehensive food safety program. Environmental Health also has a management analyst who provides data analysis. All the positions described above are held by Registered Sanitarians.



## Part I: Program Basics - Vision, Goals, Objectives

MCESD values “working with our community to ensure a safe and healthy environment.” This community includes stakeholders from industry and the general public. Meetings with stakeholders provided opportunities to reinforce/improve productive programs and communications, examine less successful programs, and address regulatory changes/clarifications.

Innovation, training and results examination are keys to continuing as a leader in food safety among state and local governments. MCESD does not implement a program and consider it done for good. With fluid demographics, changing employee attitudes and new food safety concerns, programs cannot be allowed to stagnate. Creating ways for all operators to implement active managerial control (AMC) is a driving force.



The Cutting Edge Program was created to identify and promote food establishments that have effective food safety procedures and stress active managerial control principles in their operations. The program provided recognition of the participants on the Maricopa County website and benefitted the department in allocating additional resources to establishments that lacked the management controls. As happens with programs, MCESD saw steadily improving results until a recent plateau. Discussions are already under way to re-vitalize the program and push through the plateau.

MCESD recognized that many Certified Food Protection Managers had knowledge, as required by code, but they did not know how to effectively apply that knowledge in the workplace. Recognizing a need to bridge this gap, MCESD developed an AMC course for managers to provide training on developing and implementing food safety systems. Program successes have led to development of the program in Spanish and Chinese.

Staff training is another pillar of a leading program. Inspection staff have ample opportunities to attend training within and outside the department. Assessing active managerial control has been a consistent theme. The supervisory staff is evaluated on performing a sufficient number of inspection reviews and inspection training for field staff.



## Part II: Baseline and Program Assessment - Regulatory Foundation

Maricopa County is a political subdivision of the State of Arizona and receives its authority through a delegation agreement with the Arizona Department of Health Services (ADHS). ADHS adopted the 1999 FDA Food Code in 2001. With a hold on new regulations at the state level, MCESD was successful in securing permission from ADHS to adopt the 2009 FDA Food Code and then the 2013 FDA Food Code. These codes were adopted by reference into the Maricopa County Environmental Health Code (MCEHC), which is the local regulatory foundation. Having a local ordinance allows MCESD the flexibility to maintain the highest level of public health protection while responding to industry trends. Over-burdensome and outdated regulations are updated through a continual review of the current regulations, so the Department continually meets Standard 1 of the FDA's Voluntary National Retail Food Regulatory Program Standards.

In 2012, Maricopa County created a program called the Enhanced Regulatory Outreach Program (EROP). This program improves collaboration between stakeholders and regulators in an effort to ensure transparency and improve stakeholder engagement in the regulatory process. This program was awarded a 2014 National Association of Counties (NACo) Achievement Award. Since its inception, the following regulatory changes were introduced to the MCEHC:

- Farmers market provisions were adopted to empower market coordinators to hold operators accountable.
- Micro Market requirements were added to address self-service retail markets operating without an employee present.
- Home Baked and Confectionary Goods regulations aligned MCEHC with Arizona statutory exemptions for the sale of non-potentially hazardous baked and confectionary goods made in a home kitchen.
- Mobile Food Program pushcart requirements were updated to allow menu expansion to include assembly of any ready-to-eat, commercially processed food.
- Mobile Food Program regulations were updated to address tasting events, annual event permits and clarify definitions and permit requirements.
- Trial Review Establishment permits were created to allow for consideration of novel equipment and facility designs.
- Limited Use Food Service Worker Cards were created to allow food service workers with a disability to receive training and work in food service.
- A Certified Food Service Protection Manager exemption was added for establishments that did not serve time/temperature control for safety (TCS) foods.
- Indoor playground requirements were adopted to ensure proper public health controls – addressing fecal/vomit incidents, routine cleaning, and hand sanitizer availability.
- Dog Friendly Patio guidelines were adopted to ensure that appropriate food safety procedures are followed by operators and food servers on dog friendly outdoor patios.



# Environmental Services Department



## Part II: Baseline and Program Assessment - Training Program

MCESD recognizes that the foundation of any successful and effective food safety program is training of inspection staff and supervisors. Accordingly, resources are dedicated to maintain this program with two full-time trainers. The department meets portions of Standard 2, which includes field training inspections, standardization and continuing education.

Through the delegation agreement with the state, the Arizona Department of Health Services requires regulatory inspections be performed by Registered Sanitarians (Maricopa County uses the job title Environmental Health Specialist or EHS). Therefore, inspection and supervision staff must pass the Arizona Sanitarian Registration Examination and several also obtain their National Environmental Health Association (NEHA) credential. The state has no requirements for education beyond 30 semester hours of college science. Maricopa County requires a college degree with 30 hours of science and allows twelve months to pass the exam.

To prepare candidates for the exam, MCESD brings together subject matter experts from the department to provide specific training. The county also partners with local municipalities to provide tours at water and wastewater treatment plants, landfills, and recycling plants. The trainers and subject matter experts play a key role in preparing employees for the exam. This has resulted in a passing rate of 100% for the last six years, compared to 64% overall (according to the 2017 Annual Report of Food Safety and Environmental Services for Arizona). Due to the success of the program, MCESD allows prospective Registered Sanitarians from other counties throughout Arizona to attend the training.

While preparing for the exam, new hires simultaneously go through an initial six week training program. During this time, they are trained on the basic foundation of the FDA Food Code and Maricopa County Environmental Health Code, communication and de-escalation skills, written communication and documentation, risk-based inspection methodology, and principles of AMC. Upon successful completion of the training program, the new staff and their supervisors build upon this foundation through additional field ride-along inspections (five days with a supervisor and five days with peers) and continued supervisory mentoring.

The department includes two training officers who are standardized in inspection competency by the FDA. The training officers standardize the field supervisors who in turn standardize their staff. Currently, all 18 supervisors have been standardized as have 52 Environmental Health Specialists. The department continues to strive to complete initial standardization with all staff around 18 months and re-standardization every three years.

MCESD offers three department trainings each year. Previous topics include cultural foods, active managerial control, specialized processes, new industry trends and equipment, FDA risk based inspections, and local epidemiology findings with speakers from the FDA, CDC, Maricopa County Department of Public Health, ADHS, USDA and Arizona Department of Agriculture. Employees are also encouraged to attend at least one outside conference per year.



## Part II: Baseline and Program Assessment - HACCP and Risk Factor Compliance

Since adopting the 1999 FDA Food Code in 2001, MCESD has used a risk-based classification of food establishments and a risk-based inspection approach. Our computer-based inspection program was revamped to require evaluation of the 27 Foodborne Illness Risk Factors as “In” (compliant), “Out” (not compliant), “N/O” (not observed) and “N/A” (not applicable). This requirement constantly reminds inspection staff to evaluate foodborne illness risk factors during every inspection. It also provides a reminder to operators that MCESD focuses on evaluating compliance with foodborne illness risk factors during inspections. This approach continued with the adoption of the 2009 Food Code, the 2013 Food Code, and remains in place today.

When priority and/or priority foundation violations are observed, action is taken for immediate correction. If immediate correction is not possible, a re-inspection is scheduled within ten days. Inspection report documentation includes the violation code reference, violation observations, and the required corrective action. The inspection report review, with the person in charge, includes further discussion of the violation and options for gaining long-term correction through AMC.

If a repeat priority violation is noted, the person in charge is presented the option of scheduling a separate visit to develop an AMC Intervention Plan. The AMC Intervention Plan visit allows the person in charge to formulate a plan, with assigned duties for staff and managers, which promotes active managerial control of foodborne illness risk factors. The root cause of the repeated violation is examined to determine whether the issue is related to policy, training and/or verification. The goal of the AMC Intervention Plan is to achieve long-term correction of out-of-control risk factors through effective management. This approach helps the operator recognize deficiencies in their food safety system and/or provides a good starting point to develop an effective food safety system. Additionally, operators are encouraged to attend a free, two hour AMC class given by our department. If the same priority violation is documented on the next inspection, AMC class attendance is required to prevent permit revocation. If the operator declines or fails to attend, the permit revocation process is initiated.

MCESD has a Hazard Analysis Critical Control (HACCP)/Variance Coordinator who is responsible for reviewing HACCP plans and issuing variances for specialized processes. The HACCP/Variance Coordinator acts as a consultant for HACCP requirements and food safety systems to ensure appropriate measures are in place to address the hazards associated with the variance. The coordinator trains MCESD staff to recognize specialized processes and high risk procedures, which require HACCP plans and possibly variance applications, while conducting inspections. On subsequent inspections, field inspectors follow through with operators to ensure compliance with their HACCP plans and variance stipulations. There are over 900 variances currently issued and 395 variances have been approved since 2012. The large number of variances are due to an increasing number of new food processes, novel equipment, and cultural food establishments. Some recent reviews have included kimchi, kombucha tea, fermentation of fresh vegetables, live molluscan shellfish tanks, extending shelf life for ready-to-eat foods and bottling cold brewed coffee and fresh juice.



## Part II: Baseline and Program Assessment - Quality Assurance and Uniformity

MCESD has a strong framework to ensure uniformity among the EHS staff in the interpretation of regulations, policies, and compliance/enforcement procedures. Consistency is the foundation for staff, industry, and public confidence in our food safety program. MCESD has met Standard 4 since enrolling in the program standards in 2002.

Environmental Health Supervisors play a vital role in maintaining consistency. Maintaining a span of control of four to six inspectors allows a supervisor to effectively train and mentor each employee. Environmental Health Supervisors are required to audit and review inspection reports for accuracy and compliance with department policies. Inspectors are evaluated by their supervisors during quarterly ride-along inspections to ensure quality service and uniformity. The EHS field evaluation form is based on Standard 4.

MCESD uses the database and application software ACCELA for conducting inspections and generating inspection reports. This program allows staff to review previous inspections as well as input current inspections. Additional features allow inspectors to trigger a supervisory review from the field when questions arise related to consistency. The database also allows supervisory staff to make corrections to inspection reports when violations are improperly coded/documentated or have other errors. Further uniformity is ensured by a Management Analyst who runs weekly error reports and general data analysis on inspection trends for the supervisors. This also helps facilitate continuous staff training and prevent reoccurrence of errors.

A Standards Committee was developed in 2013 to create a discussion forum to ensure consistent application of the Food Code. The committee meets on a quarterly basis if there are issues to consider. Inspectors, supervisors, and industry can submit questions to the committee for consideration. The committee chair will review the questions and determine whether they can be resolved internally or require review by the committee. MCESD members share the decisions with their respective office. Decisions are posted internally and on the Environmental Services website.

MCESD has over 26,000 food permits and some permit types require specialized food safety and/or internal company policy knowledge to maintain consistency. To resolve the issue, some specialty programs are in place, such as:

- Chain Food, Food Processors, and Institutional Care Facilities
- Special Events & Mobile Food
- Plan Review/Construction and New Owner Approval

MCESD also has programs requiring special expertise in the Quality and Compliance Division:

- Language Liaisons
- Enforcement
- Environmental Related Illness
- Training



## Part II: Baseline and Program Assessment - Foodborne Illness Surveillance

MCESD has a dedicated Environmental Related Illness (ERI) program that follows the Council to Improve Foodborne Outbreak Response (CIFOR) *Guidelines for Foodborne Disease Outbreak Response*. The ERI program conducts investigations for reports of foodborne illness, chemical intoxication, intentional food contamination, and communicable disease (CD3 – medical diagnosis of a communicable disease). Working in conjunction with Maricopa County Department of Public Health (MCDPH), Arizona Department of Health Services (ADHS), and the FDA, ERI monitors reports of foodborne illness to identify outbreaks and epidemics that may affect Maricopa County. Once identified, swift action takes place to prevent and halt any identified concerns through further communication and on-site investigation.

MCESD attends monthly disease surveillance meetings coordinated by MCDPH for public health and environmental health professionals to share information on communicable disease and foodborne outbreak occurrences. Additionally, MCESD participates in a quarterly statewide food defense workgroup in an effort to standardize foodborne illness response among the local counties.

A 2016 investigation of a *Salmonella Javiana* outbreak showcases how a coordinated investigation occurs. Fifty people (40 confirmed cases and 10 probable cases) became ill with 33 (66%) cases eating at the same restaurant with exposure dates occurring from July 16 to August 18, 2016. The initial complaint was received on August 4th and only involved a single diner at the restaurant. A foodborne illness interview was conducted that day and held for surveillance. On August 8th, Maricopa County Department of Public Health contacted MCESD about two cases of confirmed Salmonella who reported eating at the same restaurant. That day MCESD conducted an environmental assessment and did not observe any major violations. On August 16th, the Arizona Department of Health Services informed MCESD that six clinical samples yielded *Salmonella Javiana*, including people who ate at the same restaurant. After public health obtained more food history information from the cases, MCESD requested additional ingredient information for the suspect foods. After receiving this information, food and environmental samples were taken on August 26th and delivered to the Arizona State Public Health Laboratory for analysis (two of these sample were later confirmed as *Salmonella Javiana*). MCESD returned on September 1st to collect unopened containers of the suspect food items, which later yielded Salmonella. With this development, the Food and Drug Administration was notified and initiated a recall, which was completed through wholesalers. During this process, MCESD provided guidance to the restaurant regarding higher cooking temperatures for some food items, deep cleaning and sanitizing of the kitchen and removal of some food items from the menu. MCDPH closed the investigation on October 3, 2016. No cases were discovered at the date of the initial environmental assessment.

MCESD continues to strive to meet the last three requirements of Standard 5. Recent updates to the program include, formalizing support for epidemiological laboratory analysis with ADHS in June 2016, establishing a task force to include law enforcement when responding to reports of intentional food contamination and finalizing procedures with ADHS to address recalls associated with foodborne illness outbreaks.



## Part II: Baseline and Program Assessment - Compliance and Enforcement

MCESD follows the requirements outlined in the FDA 2013 Food Code regarding the timely correction of Priority and Priority Foundation violations. This includes gaining immediate correction at the time of inspection, verifying compliance during a subsequent re-inspection, or validating correction through a compliance assessment letter from the operator.

Priority violations are highlighted in red at the top of every inspection report to emphasize correction of the highest priority violations. If a priority violation of the same code reference occurs on the next consecutive inspection:

- A Long-Term Intervention meeting is offered to discuss active managerial control
- AMC class attendance is offered.
- Food service worker training documentation is audited.

If the same priority violation occurs on the third consecutive inspection:

- Key personnel are required to attend the AMC class. If the establishment does not attend the AMC class, revocation of the permit is initiated.



If the same priority violation occurs on the fourth consecutive Inspection (after attending an AMC class):

- Permit revocation is initiated.

### Permit Revocations

41%

Prior to July 2016, legal action for initial revocation of the permit to operate was initiated after three consecutive priority violations were documented. On average, 165 establishments per year faced permit revocation. MCESD noted that AMC Class attendees achieved a 60% reduction in risk factor violations. Due to this success, the AMC class was incorporated into the legal procedures as a pre-enforcement intervention. This new process has resulted in a 41% reduction of permit revocation actions.

The Enforcement Program reviews and processes all legal actions for the Department in an effort to maintain consistency in enforcement actions. The department may use any of the following to ensure compliance with the Maricopa County Environmental Health Code – Cease & Desist Order, Notice to Appear (Citation), Notice of Violation, Compliance Order, Court Referral, Permit Revocation, and Permit Suspension.



## Part II: Baseline and Program Assessment – Stakeholder Communication

Although MCESD met Standard 7 since 2002, the department continually seeks to advance industry relations and communications. MCESD hosted an Ad Hoc Stakeholder Task Force in 2014. The majority of the task force recommendations were to improve communication between MCESD and the customers by:

- Establishing a single point of contact for major industry segments (full service, quick service, retail, and specialty food).
- Beginning each inspection with a five minute “ice breaker.”
- Auto-emailing inspection reports.
- Expanding the capacity for capturing email addresses for operators.
- Revising electronic inspection report to emphasize Priority Risk Factor violations.
- Adding supervisor contact information on inspection reports.
- Providing a subscriber-based external newsletter and Standard Committee agendas.

In Maricopa County, over a million people speak a language other than English. The language liaison program employs two Spanish-speaking liaisons and one Chinese-speaking liaison. In addition to overcoming language barriers, they are cultural consultants to industry and staff when assisting with translations, teaching AMC classes, or training and developing food safety systems on-site. They promote cultural competence and cultural food awareness by training EHS staff about critical control points in the preparation of traditional foods. After seeing the positive results of the AMC class, the language liaison program quickly adapted the AMC class, and now offer two AMC classes per month in Spanish, and one in Chinese.

The Standards Committee was formed in 2013 to allow discussion of staff concerns regarding violations and documentation. As a result of the Ad Hoc Stakeholder Taskforce in 2014, MCESD Standards Committee meetings and discussions were opened up to industry. This allowed an opportunity for industry to get a glimpse into the decision making process regarding Food Code requirements and allowed for discussion of concerns. The increased collaboration produced broader understanding of decisions, brought about process improvement ideas, and remained reflective of current trends. All past decisions are archived and published on the MCESD website as a resource for industry.

Overall, MCESD has a strong framework for communicating with industry partners including:

- A full time Public Information Officer (PIO) and PIO assistant
- Educational and promotional videos for industry on YouTube and MCESD website
- Featured Cutting Edge participants on mobile restaurants ratings app
- Representatives and partnerships with industry associations: Arizona Food Marketing Alliance, Arizona Restaurant Association, Chinese Restaurant Association of Arizona, Phoenix Mobile Food Coalition, Union Pochteca, Arizona Community Farmers Markets, Arizona and National Automatic Merchandising Association.



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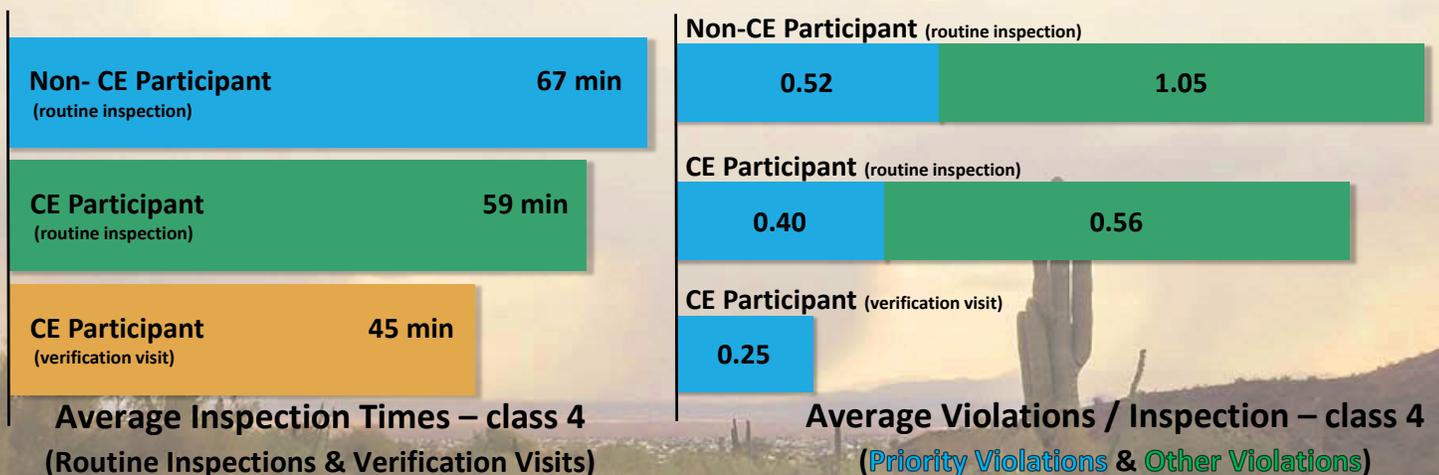
## Part II: Baseline and Program Assessment - Program Resources

With over 23,000 food service operations under permits, each EHS is responsible for conducting between 651 and 720 inspections per year. With this workload, the Department needs to continually find innovative ways of leveraging resources to maintain the highest level of public health protection for the citizens of Maricopa County. The chart below summarizes available staffing resources:

Titles	Positions	Tasks
EHS - Regional Office	70	Inspections of restaurant and retail food establishments
EHS Senior - Plan Review	11	Inspections for initial construction, new owners, and remodels
EHS Senior - Processors/Institutional Care	2	Inspections of processing plants and institutional care facilities
EHS Supervisor	18	Supervise EHS staff and EHS Seniors
Regional Office Manager	5	Supervise EHS Supervisors and single points of contact for industry
Division Manager	1	Oversees Environmental Health program
ERI Team	3	Investigations of foodborne illness complaints
EHS Senior - Training Officers	2	Trains staff and standardizes EHS Supervisors
Cultural Liaisons	3	Provide translation and promote cultural awareness
EHS - Mobile Food/Special Events	8	Inspections of mobile food and special event establishments
Management Analyst	1	Conduct analysis of data and reports
Administrative	1	Provides administrative operational support
Department Director	1	Oversees Environmental Services Department

EHS staff is provided with a thermocouple, min/max holding thermometer, metal stem thermometer, infrared thermometer, flashlight, sanitizer test strips, alcohol wipes, iPhone, Dell tablet, AirCard for remote access to ACCELA database, and portable printer. County vehicles are also assigned to staff in expansive districts.

MCESD currently has two programs that have shown a reduction in foodborne illness risk factors via AMC. The Cutting Edge Program was initially created to showcase operators who have food safety systems in place and delve deeper into the reduction in foodborne illness risk factor violations. It was evident that Cutting Edge participants had better active managerial control of foodborne illness risk factors than the general operator. It also resulted in the added benefit of lowering inspection times. This freed up the EHS staff to focus on more challenged establishments. MCESD also leveraged resources to make AMC class training available to any establishment whether or not it was involved with the Cutting Edge program or subject to pending legal action. Class participants have shown a reduction in foodborne illnesses over the long term.





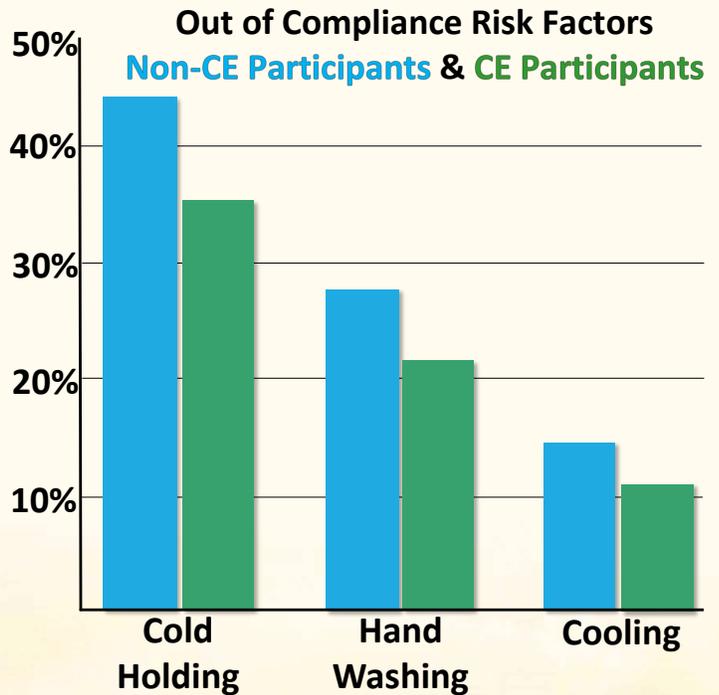
## Part II: Baseline and Program Assessment – Evaluation of Risk Factor Reduction

MCESD meets Standard 9 and has leveraged the information from risk factor surveys to target intervention strategies. For example, this data was used to determine criteria for inspections of establishments participating in our Cutting Edge (CE) Program. AMC assessments for the top 10 most frequently occurring violations are specifically targeted during Cutting Edge inspections.

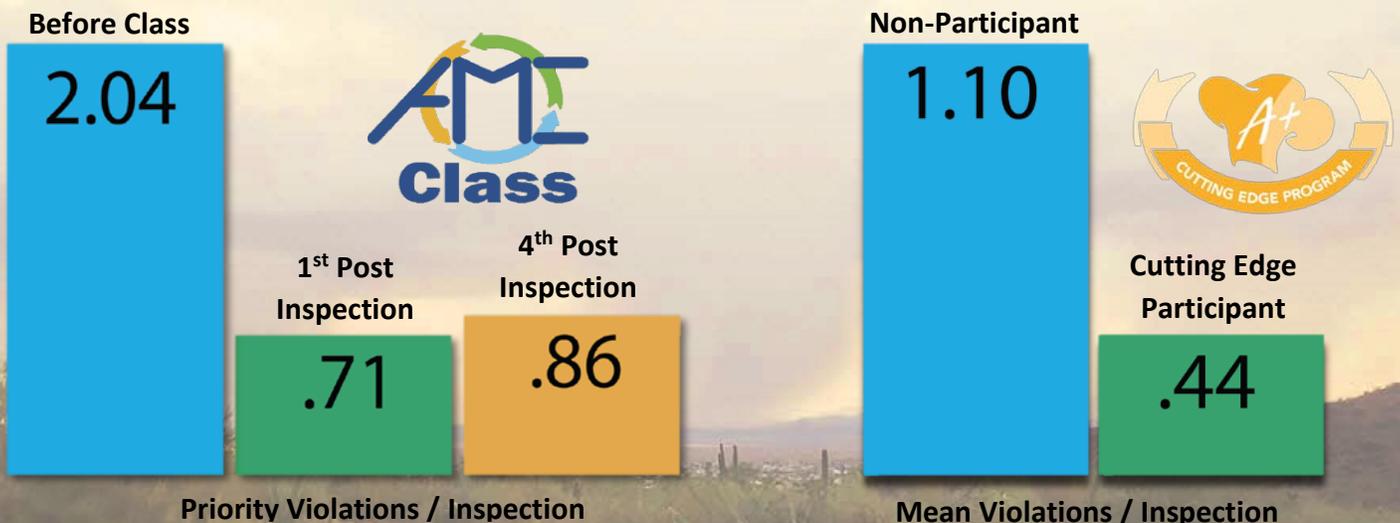
In 2015, the Department was awarded a five year U.S. Food and Drug Administration Cooperative Agreement grant to develop an AMC toolbox. During the first year of the agreement, a risk factor survey was conducted utilizing the latest FDA survey form and Food Shield database. In order to better assess AMC, the latest survey form required an evaluation of policy, training, and verification for randomly selected risk factors.

A total of 606 facilities were inspected of which 169 were participants in the Cutting Edge program allowing the ability to evaluate program effectiveness. Analysis showed that Cutting Edge establishments outperformed the average establishment by having fewer priority violations. Data from the risk factor survey was also used to ensure that our AMC toolbox targets the most frequently occurring foodborne illness risk factors.

This information has been used to promote The Cutting Edge program participants with the goal of encouraging others to develop food safety systems and join the program.



In addition, we have evaluated our progress on reducing foodborne illnesses by reviewing our AMC and CE data.





## Part III: Challenges, Objectives, Measurements, Achievements – Challenge 1 Reducing the Occurrence of Priority Violations with AMC

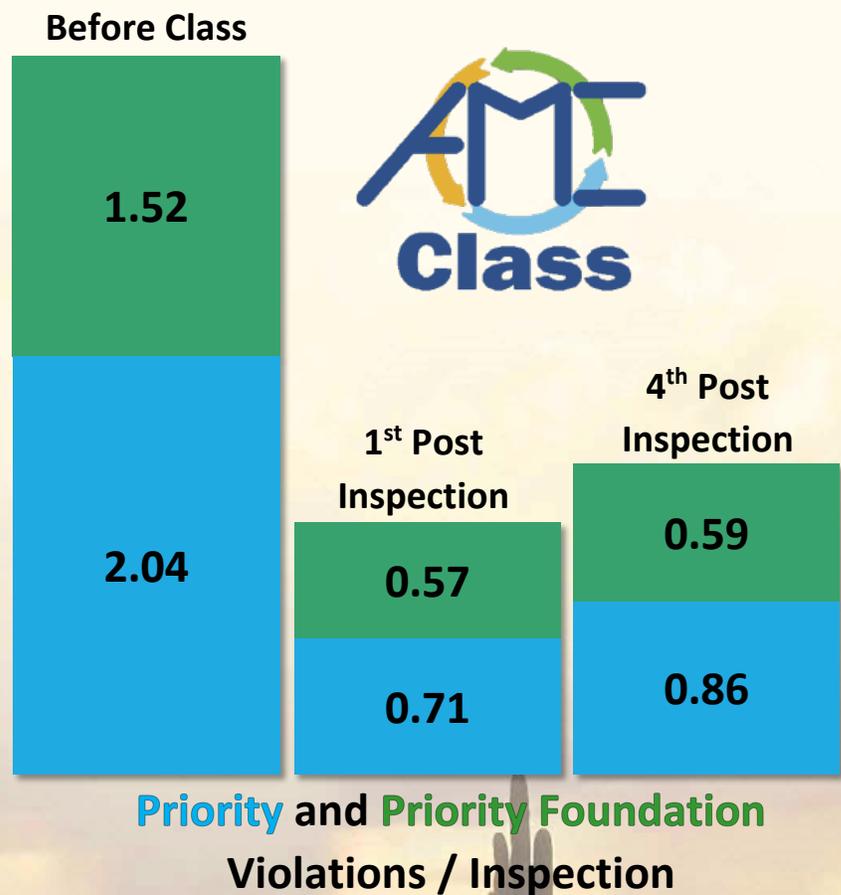
MCESD data showed that AMC practices reduced the occurrence of priority violations – reducing the risk of foodborne illness to Maricopa County citizens and visitors. The challenge is making it more widely practiced by operators and more pervasive in all training.

In 2013, MCESD developed a free AMC class to provide operators with tools to develop food safety systems and to implement AMC practices. During the class, AMC principles are broken down into three simple steps: policy, train, and verify. Attendees have the opportunity to teach, demonstrate, and practice these principles. The class provides attendees with knowledge and tools to confidently apply these principles in their food establishments. The objective is to achieve long-term control over priority violations.

Success of the class would be measured by attendees achieving a reduction in the occurrence of priority violations. As seen in the graph below, the class resulted in a significant and sustained reduction in the occurrence of priority violations.

MCESD recognized that AMC needed to be reinforced in three key program areas:

1. EHS Training – On-going AMC training is provided to all EHS staff to demonstrate and reinforce methods for effectively communicating those principles to operators.
2. Long-Term Intervention Policy – The policy allows establishments with repetitive priority violations to schedule an optional AMC training visit and attend an AMC class.
3. Enforcement Policy – The policy provides operators with the option of attending an AMC class of lieu of initiating permit revocation. This has resulted in a 41% reduction in permit revocation actions.

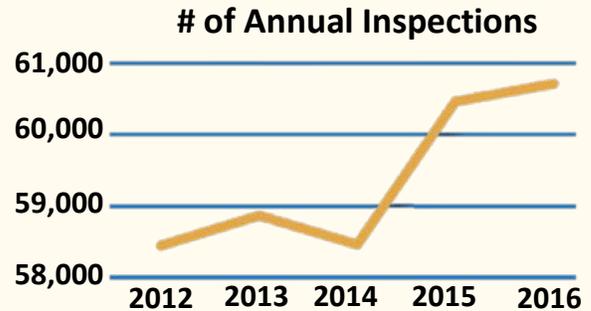




## Part III: Challenges, Objectives, Measurements, Achievements – Challenge 2 Doing More with Less

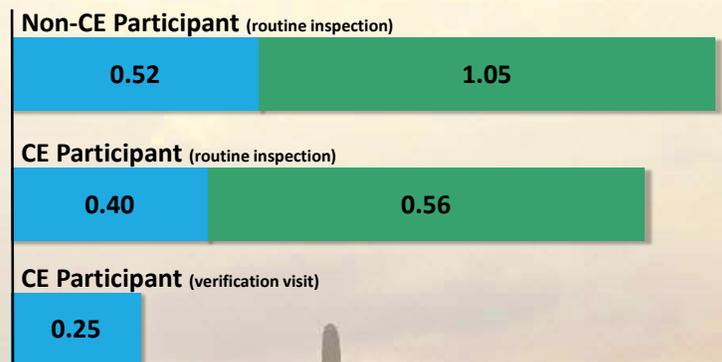
The number of required food service inspections increased by 2,192 between 2012 and 2016. MCESD was faced with the challenge of meeting its mandate to complete 100% of inspections without increasing staffing levels or fees.

In 2012, an innovative program called Cutting Edge (CE) was created to identify and reward establishments who have effective food safety systems and practice Active Managerial Control. By identifying these establishments, MCESD is able to streamline our risk-based inspection process, resulting in time-savings to meet additional inspection demands and address challenged facilities. To enroll in CE, establishments must have food safety systems for the ten most frequently occurring foodborne illness risk factors. CE participants alternate between routine inspections and Cutting Edge food safety system verification visits. During these visits, EHS staff verify sustained AMC over the ten risk factors. Currently, 2,335 food establishments are enrolled in the program and 8,841 verification visits have been conducted between 2015 and 2017. This resulted in an approximate time savings of 2,060 hours.



**Average Inspection Times – class 4  
(Routine Inspections & Verification Visits)**

CE participant results highlight the impact of having an effective food safety system. On average, CE participants had fewer violations per inspection than non-participants. New ways to increase participation are currently under consideration to improve the program results.



**Average Violations / Inspection – class 4  
(Priority Violations & Other Violations)**



## Part III: Challenges, Objectives, Measurements, Achievements – Challenge 3 Stakeholder Engagement

In 2014, MCESD sought to complete an assessment of its services and delivery systems with the goal of providing outstanding customer service. The assessment involved the formation of an ad hoc stakeholder task force that encouraged industry representatives to engage in a discussion of services. This effort was supported by the Maricopa County Board of Supervisors (BOS) who personally invited these representatives and committed to those attending that implementation of the task force recommendations was a priority. Through a series of meetings, candid discussions identified areas of success as well as challenges. The areas for improvement were sorted into three categories. These were assigned to stakeholder subcommittees who worked to identify possible solutions. This collaborative and transparent approach benefited all involved. It ensured that Department solutions would meet the customers’ expectations and had their support prior to implementation. It also afforded stakeholders the chance to become more familiar with the Department’s operational mandates and resources. Due to the mutually beneficial outcomes from this process, MCESD has incorporated quarterly stakeholder meetings into the regular outreach program. Stakeholders have expressed gratitude for the open lines of communication and involvement in Department process reviews.

Below are the key results from this initiative:

Cutting Edge Subcommittee		
Recommendation	BOS Approval	Implementation Date
Develop marketing plan	Yes	7/31/14
Create mobile app to highlight participants	Yes	12/31/14
Require AMC Class for new owners	No	N/A
Conduct fee analysis	Yes	12/31/14
Standardization and Consistency Subcommittee		
Recommendation	BOS Approval	Implementation Date
Contract with language interpreting service	Yes	8/31/14
Add field to application for preferred language	Yes	12/31/14
Extend inspector rotational time to three years	Yes	5/30/14
Establish single points of contact for four industry classes	Yes	12/31/14
Institute 5-minute ice breaker conversation	Yes	7/15/14
Allocate resources for IT communication enhancements	Yes	12/31/14
Establish subscription based industry newsletter	Yes	6/30/14
Open Standards Committee meeting to public	Yes	6/30/14
Create three day inspection review period prior to posting	Yes	12/31/14
Add supervisory review checkbox	Yes	12/31/14
Create ability to electronically correct inspection reports	Yes	12/31/14
Revise inspection report to highlight priority violations	Yes	12/31/14
Plan Review Subcommittee		
Recommendation	BOS Approval	Implementation Date
Modify guidance for minor remodels	Yes	5/30/14
Offer after-hour plan review inspections	Yes	10/31/14
Allow new owners to operate during plan approval	Yes	12/31/14
Adopt the 2013 FDA Food Code	Yes	10/31/14

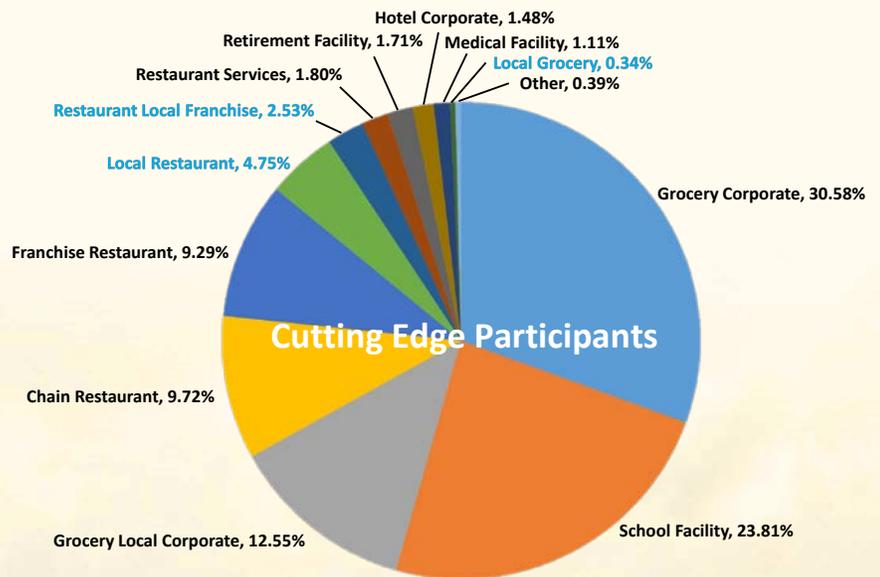


## Part IV: Program Longevity

Maricopa County Environmental Services Department has maintained its status as a leading Environmental Health program for over twenty years through changes in management, personnel and political leadership. Even through these changes, the department identified high quality key people that are interested in holding themselves to a higher standard. There is an expectation that the department will continue to strive for excellence.

MCESD will continue to work on the FDA cooperative agreement through the rest of the five year grant to incorporate many more resources for operators to implement active managerial control, especially as communication in multiple languages is considered. Future plans include directing food establishment operators to the materials via electronic inspection report links. The cooperative agreement will also afford an opportunity to conduct a risk factor follow-up assessment, which will provide a baseline to evaluate the effectiveness of the toolbox.

Despite the best effort of MCESD, the Cutting Edge Program has had limited involvement from smaller, independent food establishments. Of the 2,335 Cutting Edge participants, less than 8% are local, “mom and pop” operators. These businesses do not have the time, resources or expertise to develop food safety management systems. The AMC toolbox and updated marketing strategies will be important to incentivize participation through public awareness. The goal is to create an expectation from the general public that food operators have these preventative food safety systems in place.



As a long time participant in the FDA Program Standards, MCESD will continue to maintain compliance with Standards 1, 3, 4, 7, and 9 and will work towards compliance with Standards 2, 5, 6, and 8. MCESD has joined efforts with other Arizona counties to enhance each other’s capacity to comply with the Standards. Additionally, Standard partnerships were created with Southern Nevada Health District and San Bernardino County to improve compliance with the Standards. We will continue to advance collaboration with outside agencies and jurisdictions.

Staff development and succession planning will be key to the ongoing success of our program. Around 50% of EHS staff have an experience level of 3 years or less and 15% of EHS staff are slated for retirement within the next three to five years. MCESD is currently involved in a countywide workplace transformation initiative. The goals are to place current employees in control of their careers and make Maricopa County a desirable, innovative workplace for potential employees. This will involve creating a consistent base for performance management, streamlining the recruitment process, and implementing innovative retention strategies.



# Environmental Services Department



## Part V: Contact Information and Permission

Steven Goode, Director  
Maricopa County Environmental Services Department  
1001 N. Central Avenue, Suite #401  
Phoenix, AZ 85004 United States of America  
(602) 372-5599

[sgoode@mail.maricopa.gov](mailto:sgoode@mail.maricopa.gov)

Maricopa County Environmental Services Department grants permission to the Foodservice Packaging Institute to place this Crumbine Award application on [www.crumbineaward.com](http://www.crumbineaward.com).

Respectfully,

*Steven Goode*

Director  
Maricopa County Environmental Services Department



February 12, 2018



Samuel J. Crumbine  
Consumer Protection Award Jury

To Whom It May Concern:

On behalf of the Chinese Restaurant Association of Arizona, it is with the greatest pleasure we recommend the Maricopa County Environmental Services Department for the Samuel J. Crumbine Award.

The Chinese Restaurant Association of Arizona celebrates its 30<sup>th</sup> anniversary in 2018 and is proud of the partnership it has developed with MCESD over these many years. Our board and members meet regularly with the Department to exchange ideas and improve understanding. This collaboration has led to the creation of full-time Chinese Liaison position in the Department, has created understanding among Asian restaurateurs, and fostered cultural awareness among Department staff.

The Department always provides the Association with new tools and approaches to raise food safety awareness among our members. The Cutting Edge Program and Active Managerial Control classes are just two examples of innovative food safety programs that are provided in Chinese in order to reach the Chinese restaurant community. Also, many educational articles have been provided by the Chinese Liaison and published in our newsletter. These articles address common food safety questions and educate members on regulatory changes, such as requirements from the 2013 FDA Food Code.

Our Association recognizes Maricopa County Environmental Service's efforts to continually improve food safety for our members and customers. We recognize their collaborative approach in developing new programs and challenging the old ones. They are truly deserving of being recognized for these efforts. It has made a difference in our community!

Sincerely,



Garry Ong  
President, Chinese Restaurant Association of Arizona



## Arizona Restaurant Association

3333 East Camelback Road, Suite 285, Phoenix, Arizona 85018  
P: 602.307.9134 F: 602.307.9139 [azrestaurant.org](http://azrestaurant.org)

March 3, 2018

Samuel J. Crumbine  
Consumer Protection Award Jury

To Whom It May Concern,

On behalf of the Arizona Restaurant Association, it is my pleasure to recommend The Maricopa County Environmental Services Department (MCESD) to be recipients of the 2018 Samuel L. Crumbine Award.

I have had the opportunity to work closely with the MCESD staff as a long-time board member and current Chairman of The Arizona Restaurant Association. Having been a franchisee of Taco Bell/Pizza Hut over 25 years and proprietor of an independent local eatery called Chase's Diner, I have had the opportunity to work closely with the MCESD staff both in the field and on several share holder committees. As a certified instructor for the Serve Safe Manager course for almost 30 years, I greatly appreciate the importance of protecting the health and safety of my customers by having good food safety practices and standards. I view MCESD as my primary partner to maintain those practices and standards. Additionally, having restaurants in four different Arizona counties gives me an even greater appreciation for the manner in which MCESD goes about their business.

I have had the opportunity to serve on several MCESD committees going back to the 1990s. One of my favorites was The Cutting Edge program. I participated in an ad hoc stakeholder taskforce put on by the Maricopa County Board of Supervisors in 2014. This participation led to partnering with MCESD with the advancement of the Active Managerial Control classes and the improved promotion of the Cutting Edge program. This in turn led to several tools used by MCESD to improve their communications with their food safety partners. The "all in" approach of MCESD is evidenced by the innovative and effective ways they have improved safety across Maricopa County. As a consumer who eats out regularly with my family, I find comfort in their efforts. As a restaurant owner who has invested heavily in this industry, I appreciate what a great asset they are, protecting my customers as well as my businesses. Time and time again, they have shown the willingness to step outside the box to try new concepts and new approaches to move past the status quo with the singular goal of advancing food safety in Maricopa County.

Consumer Protection Award Jury  
PAGE TWO

I am proud to say the Arizona Restaurant Association has a shared mission with MCESD of protecting customers and citizens from the devastating impacts associated with foodborne illnesses. That partnership has led to Maricopa County being a better community to live, visit, and do business.

Respectfully yours,

A handwritten signature in blue ink, appearing to read "Skip Chase", with a stylized flourish at the end.

Skip Chase  
Chairman of the Board  
Arizona Restaurant Association



2/13/1018

Andrew Linton  
Maricopa County

Dear Crumbine Award Committee,

It is with great pleasure that I am writing this letter on behalf of Maricopa County for consideration for the Samuel Crumbine Award for Excellence in Food Protection. Maricopa County Environmental Health Department has taken great strides to increase the knowledge of industry in regards to food safety as well as raising their standards in their role of providing training and regulatory feedback.

As the Food Safety Manager for the Southwest Division of Albertsons Companies, I have over 200 stores in this Division with 90 plus stores falling under the jurisdiction of Maricopa County. Throughout this Division, our stores fall under 23 different jurisdictions. Maricopa County has gone above and beyond other jurisdictions to work with our large number of facilities under their regulatory prevue.

The County has a supplied a specific "go to" person for companies that have a large amount of facilities to help channel questions and issues to one place instead of reaching out to 80 different inspectors. This greatly helps in getting questions answered quickly as well as being able to share company wide information with the entire County instead of one inspector at a time.

In addition to this work, Maricopa County's Cutting Edge Program which we have been a member of since inception has greatly increased the publics knowledge of food safety as it draws their attention to the issue of food safety and that some facilities are going above and beyond. As for our stores, the increased requirements to join the program helps us hold our stores to high standards as both ourselves and regulatory are on the same page as what we are looking for. This helps us as a company to cement our trainings and requirements in place.

Maricopa County also offers an Active Managerial Control class which helps train industry in a classroom style training that is very affective. We use the same type of material to do our internal training and use the County's training as a follow up for any facilities that do not keep up with our standards. The same information is taught but sometimes it takes that level of seriousness for certain ideas to be taken in.

Because of their efforts, Maricopa County has earned the respect of our team members throughout our stores as our philosophy's and trainings meet in the middle. Ours stores see them as positive influences and as part of our team to stay ahead of food safety. I strongly urge you to consider Maricopa County for the Samuel Crumbine Award for Excellence in Food Protection.

Sincerely,

A handwritten signature in black ink, appearing to read 'Molly Graves'.

Molly Graves RS, REHS  
Food Safety Manager - Southwest Division - Albertsons Companies  
20227 N 27<sup>th</sup> Ave  
Phoenix, AZ 85027  
623-869-5695  
Molly.graves@albertsons.com



## ARIZONA FOOD MARKETING ALLIANCE

February 20, 2018

Re: Samuel J. Crumbine Award Panel

To whom it may concern:

As a representative of the Retail Food Industry throughout Arizona, the Arizona Food Marketing Alliance (AFMA) is pleased to provide its support and recognition of partnership to the Maricopa County Department of Environmental Services (MCDES) in its efforts to obtain the Samuel J. Crumbine Award for Excellence in providing outstanding food protection services.

With food safety as a top priority in our industry, it has been an honor to partner and work side by side with MCDES to help generate outstanding, innovative programs that generate positive results in Maricopa County.

One of these innovative programs is called "Cutting Edge". This program allows us to focus more on prevention and training while still striving to improve food safety overall by rewarding the good performers. MCDES continues to maintain excellence through active managerial control classes that help reduce foodborne illness in Maricopa County.

Through this entire process, they have worked closely with all their industry partners that have helped to drive significant improvement in overall results.

In the past four years, MCDES has collaborated with all food industries by utilizing a stakeholder taskforce that focused on identifying opportunities to improve food safety, reduce risk of foodborne illness and improve overall communication.

We are proud to partner with MCDES to help improve food safety in the retail food industry.

MCDES is very deserving of this prestigious award.

Sincerely,

A handwritten signature in black ink that reads "Tim McCabe". The signature is written in a cursive, flowing style.

Tim McCabe, President  
Arizona Food Marketing Alliance



# ARIZONA DEPARTMENT OF HEALTH SERVICES

## PREPAREDNESS

March 6, 2018

Samuel J. Crumbine Award  
Excellence in Food Protection

Dear Crumbine Award Jury,

It is with great pleasure that the Arizona Department of Health Services support Maricopa County Environmental Services Department's (MCESD) application for the Samuel J. Crumbine Excellence in Food Protection Award.

As Arizona's largest county, the efforts and leadership of MCESD are felt throughout the state and the entire nation. Over the last five years, MCESD has continued to take innovative approaches to decrease the incidence of foodborne illness risk factors in their jurisdiction, and therefore preventing foodborne illness. These approaches include the implementation of the Cutting Edge Program and providing Active Managerial Control classes to their regulated community. MCESD has demonstrated regional leadership through the training of prospective Environmental Health Sanitarians statewide and through their participation on workgroups that include the Arizona Conference for Food Protection issue development workgroup and a workgroup that furthers statewide conformance with the FDA Voluntary National Retail Food Regulatory Program Standards. Lastly, MCESD has continued to work closely with state and federal agencies, industry, and the public to address issues of public health concern, all of which further national efforts towards an integrated food safety system.

MCESD's accomplishments, dedication, commitment to food safety and public health, departmental innovations, and teamwork are all characteristics of a leader that is deserving of the Samuel J. Crumbine Excellence in Food Protection Award.

Sincerely,

Blanca Caballero, REHS/RS  
Food Safety & Environmental Services Program Manager

Douglas A. Ducey | Governor    Cara M. Christ, MD, MS | Director