

Quality and Productivity Commission
33rd Annual Productivity and Quality Awards Program
"Innovating for Impact"

2019 APPLICATION

Title of Project (Limited to 50 characters, including spaces, using Arial 12 point font):

NAME OF PROJECT: Saving Lives - Drowning Detection System

DATE OF IMPLEMENTATION/ADOPTION: SEPTEMBER 15, 2017

(Must have been fully implemented for a minimum of at least one year - on or before July 1, 2018)

PROJECT STATUS: Ongoing One-time only

HAS YOUR DEPARTMENT PREVIOUSLY SUBMITTED THIS PROJECT? Yes No




EXECUTIVE SUMMARY: Describe the project in 15 lines or less using Arial 12 point font. State clearly and concisely what difference the project has made.

- 1 Tech solutions can save lives! Putting safety first, Los Angeles County's Parks and
- 2 Recreation has become the first municipality in the U.S. to implement the state-of-the-
- 3 art drowning detection system as a pilot project at Jesse Owens Community Pool. The
- 4 drowning detection system is providing timely notification through advanced video
- 5 analytics within seconds of swimmers in distress and enables pool lifeguards to respond
- 6 quickly to potential drownings. This technology uses underwater cameras and sensors
- 7 to monitor swimmers' safety to assist pool lifeguards in identifying swimmers at risk of
- 8 drowning. The system is intended to complement the traditional work of lifeguards as a
- 9 key technology that facilitates their activities. After implementation, Park Aquatics staff
- 10 conducted a routine rescue training analysis and the data shows that in pools without
- 11 the prevention technology, the average response time was 9.5 seconds, and at Jesse
- 12 Owens, the response time is a mere 1.7 seconds. In addition to saving lives, this
- 13 technology is significantly helping the mitigation of legal action as a result of drowning
- 14 and saving the County millions of dollars.
- 15

BENEFITS TO THE COUNTY

(1) ACTUAL/ESTIMATED ANNUAL COST AVOIDANCE	(2) ACTUAL/ESTIMATED ANNUAL COST SAVINGS	(3) ACTUAL/ESTIMATED ANNUAL REVENUE	(1) + (2) + (3) = TOTAL ANNUAL ACTUAL/ESTIMATED BENEFIT	SERVICE ENHANCEMENT PROJECT
\$	\$	\$	\$	X

ANNUAL = 12 MONTHS ONLY

SUBMITTING DEPARTMENT NAME AND COMPLETE ADDRESS Los Angeles County Department of Parks & Recreation 1000 S. Fremont Ave, Unit #40, Alhambra CA 91803		TELEPHONE NUMBER 626-588-5150
PROGRAM MANAGER'S NAME Malou Rubio 		TELEPHONE NUMBER 626-588-5293 EMAIL mrubio@parks.lacounty.gov
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE <small>(PLEASE CALL (213) 893-0322 IF YOU DO NOT KNOW YOUR PRODUCTIVITY MANAGER'S NAME)</small> Elizabeth Mendez 		DATE 06/18/19 TELEPHONE NUMBER 626-588-5201 EMAIL lmendez@parks.lacounty.gov
DEPARTMENT HEAD'S NAME AND SIGNATURE John Wicker 		DATE 6/24/19 TELEPHONE NUMBER 626-588-5373

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1st FACT SHEET – LIMITED UP TO 3 PAGES ONLY: Describe the **challenge(s), solution(s), and benefit(s)** of the project to the County. What quality and/or productivity-related outcome(s) has the project achieved? Provide measures of success and **specify assessment time frame**. Use Arial 12 point font.

CHALLENGE:

During hot summer months, Los Angeles County residents can escape from the scorching heat at their community swimming pools. The Department of Parks and Recreation (DPR) operates 37 swimming pools, including Jesse Owens Community Regional Park. Open year-round, Jesse Owens is one of the most popular swimming pools in the County, with an annual attendance of over 60,000 swimmers. Many factors can cause delays in response to drowning incidents, including overly crowded pools, distractions, and glare/steam causing poor vision. These delays, no matter how fractional, make a substantial difference in situations that result in life or death. In June 2013, an incident occurred when a swimmer became unconscious under water. Although four lifeguards were on duty, unfortunately, the rescue was not timely enough and resulted in the loss of life. Drowning incidents are extremely time-sensitive, making short response times of the utmost importance. Lifeguards have a very stressful job, especially in the summer season when the pools are at capacity.

SOLUTION:

In addition to more staff training, DPR introduced the drowning detection system at Jesse Owens Pool to aid lifeguards in detecting drownings. The system features innovative technology that utilizes cameras and sensors installed in the pool for detection of possible drownings and alerts on-duty lifeguards through a smartwatch within seconds of detection—an enormous, lifesaving difference in response time. The notification includes the location and position of the at-risk swimmer to help the lifeguard respond accurately and quickly.

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BENEFITS:

The implementation of the drowning detection system is beneficial for users as well as the County in a variety of ways.

Enhances Existing Supervision Regimes:

Many changing variables can affect the supervision lifeguards provide. Including overly crowded pools, distractions, and glare/steam causing poor vision. However, with the implementation of drowning detection system, pool lifeguards are provided with technology to assist them when they are on-duty. The system uses surveillance systems to monitor swimmers underwater and detect distress, maximizing the pool's safety and supervision.

Quicker Response Time:

The drowning detection system is a computer-aided system used to enhance pool safety. While lifeguards are trained to provide surveillance to protect users, many factors can potentially cause a delay in response time. As soon as the drowning detection system detects that a swimmer has been submerged for more than 12 seconds, it sends an alarm to the lifeguard through hand-held devices with live feed and the exact location of the swimmer, significantly cutting down on rescue response times.

Life and Cost Reduction:

Prior to the detection system, several serious drowning incidents resulted in lawsuits. With the system in place, pool lifeguards can supervise swimmers and respond to potential drowning situations at a faster pace, thus reducing the possibility of future lawsuits.

With the system in place, pool lifeguards can supervise swimmers as well as respond to potential drownings at a faster pace, thus creating a safer environment for public pool users. This system is implemented to reduce risks of drowning, which in turn should reduce the possibility of future lawsuits.

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Linkage to the County Strategic Plan – 1 page only. Which County Strategic Plan goal(s) does this project address? Explain how. Use Arial 12 point font.

This project addresses the County's Strategic Plan III.2.3 Prioritize and Implement Technology Initiatives That Enhance Service Delivery and Increase Efficiency

With the implementation of the drowning detection system, Jesse Owens Pool has become a state-of-the-art technologically advanced pool. The Pool now serves as a model for how public pools can be re-imagined for greater public safety and enhanced customer experience. The technology mitigates the risks posed by high attendance at public pools and the occupational stress on individual lifeguards. Its precision allows lifeguards to respond to incidents with greater speed and efficiency, maximizing their ability to serve the public. This state-of-the-art technology is relatively accessible to implement on a broader scale, as the components are readily used in existing public security systems. While the operation and responsiveness of the system are indeed reflective of ingenuity and innovation, the core resources are within the reasonable scope and capabilities of the Department. This system can be promoted as best practice among public pools and replicated with relative ease as the industry standard. It has proven to be genuinely an invaluable investment in the name of public safety and customer service.

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COST AVOIDANCE, COST SAVINGS, AND REVENUE GENERATED (ESTIMATED BENEFITS TO THE COUNTY): If you are claiming cost benefits, include a calculation on this page. Please indicate whether these benefits apply in total or on a per unit basis, e.g., per capita, per transaction, per case, etc. You must include an explanation of the County cost savings, cost avoidance or new revenue that matches the numbers in the box. Remember to keep your supporting documentation. Use Arial 12 point font

Cost Avoidance: Costs that are eliminated or not incurred as a result of program outcomes. Please indicate whether these are costs to the County or to other entities.

Cost Savings: A reduction or lessening of expenditures as a result of program outcomes. Please indicate whether these were expenditures by the County or by other entities.

Revenue: Increases in existing revenue streams or new revenue sources to the County as a result of program outcomes.

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