

**Quality and Productivity Commission**  
**33<sup>rd</sup> Annual Productivity and Quality Awards Program**  
**"Empowering Innovative Solutions"**

**2019 APPLICATION**

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

**NAME OF PROJECT:** Zero-Cost Upgrade for Disaster Recovery Radio

**DATE OF IMPLEMENTATION/ADOPTION:** 12/15/2016

(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.

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Since 1993, the Countywide Integrated Radio System (CWIRS) has been the County's primary communications system for disaster recovery (e.g., earthquake, fire, flood, or terrorist incident). In 2004, CWIRS became subject to a federally-mandated, nationwide, frequency-rebanding program. After treaty negotiations for frequency re-allocations, the program consummated in 2012. CWIRS negotiated an opt-out/cash-out accord to comply with the program requirements for frequency-rebanding, resulting in *savings* to procure a \$43M-plus, state-of-the-art, technological upgrade to the Countywide disaster recovery radio system *at zero cost to the County*.

BENEFITS TO THE COUNTY				
(1) ACTUAL/ESTIMATED ONE- TIME COST AVOIDANCE	(2) ACTUAL/ESTIMATED ANNUAL COST SAVINGS	(3) ACTUAL/ESTIMATED ANNUAL REVENUE	(1) + (2) + (3) = TOTAL ANNUAL ACTUAL/ESTIMATED BENEFIT	SERVICE ENHANCEMENT PROJECT
\$45,654,000	\$426,996	\$2,935,751	\$49,016,747	<input type="checkbox"/>
ANNUAL = 12 MONTHS ONLY				
SUBMITTING DEPARTMENT NAME AND COMPLETE ADDRESS Internal Services Department 1100 North Eastern Avenue Los Angeles, CA 90063			TELEPHONE NUMBER (323) 267-2108	
PROGRAM MANAGER'S NAME Karl Krebs			TELEPHONE NUMBER (323) 881-3691  EMAIL KKrebs@isd.lacounty.gov	
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE (PLEASE CALL (213) 863-0322 IF YOU DO NOT KNOW YOUR PRODUCTIVITY MANAGER'S NAME) Diane Quarker <i>Diane Quarker</i>		DATE <i>6/26/19</i>	TELEPHONE NUMBER (323) 881-3611  EMAIL DQuarker@isd.lacounty.gov	
DEPARTMENT HEAD'S NAME AND SIGNATURE Scott Minnix <i>Scott Minnix</i>		DATE 6/26/19	TELEPHONE NUMBER (323) 267-2101	

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**1<sup>st</sup> 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.

The Countywide Integrated Radio System (CWIRS) was commissioned with unanimous approval by the Board of Supervisors in 1992 and implemented by ISD in 1993, to serve as the County's primary communication system for disaster recovery, including for earthquake, fire, flood, or terrorist incident. Soon after the implementation, CWIRS was successfully deployed for much-needed support in the 1994 Northridge earthquake.

In addition to its disaster-recovery mission, CWIRS is used for daily operations by numerous departments and public agencies (e.g., Public Works, Probation, ISD, Animal Care & Control, and Sanitation).

**CHALLENGES**

Beginning in the late 1990s, government agencies and public safety radio systems nationwide using 800 MHz frequencies, including CWIRS, began to experience unexplained reception interference. Investigation and analysis by the Federal Communications Commission (FCC), determined that use of adjacent frequencies by Nextel (later SprintNextel, now Sprint) was causing the interference. In 2004, the FCC ordered all 800 MHz licensees nationwide to move (i.e. reband) to new frequencies and ordered Sprint to fund the moves.

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**SOLUTIONS**

ISD designed and negotiated an opt-out/cash-out accord to comply with the federal program requirements for rebanding, implement a state-of-the-art technological refresh, and upgrade the legacy radio technology by replacing the federal program with our own contractually-created program.

In collaboration with the FCC (as regulator) and negotiations with the Transition Administrator (as fiscal agent), Sprint (as funder), and Harris (as implementer), ISD was able to streamline the administrative process and compress timelines at a cost-savings that allowed us to bundle the refresh/upgrade and rebanding, *all at zero cost to the County.*

Negotiations included receiving authorization from the FCC to opt-out of the federal program, agreed cash-out from Sprint, and obtain implementation vendor to contractually commit to the upgrade for the price of the reband.

In creating and effectuating this solution, we were able to uphold the County and public-services values as follows:

Integrity - At all times, ISD was accountable to the Federal Transition Administrator (rebanding program fiscal compliance), the FCC, and the County of Los Angeles

Inclusivity - Through monthly project meetings, we gathered input from a diversity of voices, including user departments, technicians, and radio system administrators from other government entities nationwide, to design a system beneficial to all County residents.

Compassion – Analysis and discussion for technical radio system design, program funding, and regulatory compliance and its impact on quality of life for County residents.

Customer Orientation - CWIRS is a resilient and dependable communications tool for services offered by its users. For example, in support of the County's Office of Emergency Management, there is a CWIRS radio in every County department. Further, CWIRS is poised to expand to potentially include other public agencies, including the Los Angeles Unified School District and L.A Metro.

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**BENEFITS**

The County's CWIRS was a near obsolete. The 2004 Federally Mandated Frequency Rebanding challenged the County and ISD to create and secure a countywide, integrated radio system. Through the extended efforts of our technicians, radio system administrators and guidance of contracting services, we were able to comply with federal standards and acquire a \$43 million state-of-the-art system, at zero cost to the County.

Final system acceptance was in December 2016 with CWIRS continuing to be a vital regional system for disaster recovery, including the most recent 2018 Woolsey fire.

During various phases, this project has been heralded for its innovation and the team for their stewardship, including recognition by the

- Los Angeles County Board of Supervisors - *STARS!* Award - 2013, and *SUPERSTARS!* Award - 2014 for Service Excellence and Organizational Effectiveness;
- Los Angeles Digital Government Summit 2017 Excellence in Technology - Outstanding IT Project Award;
- The National Association of Counties 2019 Achievement Award - Information Technology.

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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.

**Goal I. Make Investments That Transform Lives**

*We will aggressively address society's most complicated social, health, and public safety challenges. We want to be a highly responsive organization capable of responding to complex societal challenges – on person at a time. [emphasis added]*

As the County's primary communication system for disaster recovery, CWIRS is central to public safety. The system has been effectively deployed to support regional disaster recovery efforts, starting with the Northridge earthquake in 1994, through the Woolsey fire in late 2018.

The system that existed in 1994 (Northridge) would have been antiquated and obsolete in 2018 (Woolsey) without the unique and resourceful approach leveraged by ISD to comply with the federal program requirements for rebanding, implement a state-of-the-art technological upgrade, and replace the legacy radio system.

With its final system acceptance in December 2016, CWIRS continues to be a secure and vital communication tool for regional disaster recovery.

**Goal III. Realize Tomorrow's Government Today**

*Our increasingly dynamic, and complex environment, challenges our collective abilities to respond to public needs and expectations. We want to be an innovative, flexible, effective, and transparent partner focused on advancing the common good. [emphasis added]*

In effect, the County replaced the federally-mandated rebanding program with our own contractually-created program. By contractually re-writing the implementation program we were able to streamline the administrative process and compress timelines at a cost-savings that allowed us to bundle a refresh/upgrade along with the rebanding at zero cost to the County.

This unique and innovative approach involved negotiations, collaboration, and coordination with/from the Federal Communications Commission (as regulator), the Transition Administrator (as fiscal agent), Sprint (as funder), and Harris Corporation (as implementer) to achieve regulatory compliance.

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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.

The most immediate financial benefit from the CWIRS project was a one-time cost avoidance (1) of purchasing/upgrading the CWIRS system infrastructure and, (2) of replacing/upgrading the User equipment (e.g., portable, mobile and desktop radios).

By using two annual rounds of grant funding (Federal UASI funding), we first installed CWIRS Cores at a cost of \$3,781,000, followed by a grant funded upgrade adding the capability to increase our useful capacity by 90% with a cost of \$1,373,000.

Beyond the two federally funded grant purchases, through the Opt-Out/Cash-Out accord with Sprint (as described in this application), ISD acquired the funding for the remainder of the P25 Upgrade/Reband. This afforded \$22,500,000 to complete the upgrade to the state-of-the-art platform that we are currently operating. The combined funding resources totaled \$27,654,000 for the infrastructure.

In addition, Sprint also funded the replacement of over 9,000 pieces of user equipment including portable, mobile and desktop radios. The total estimated cost of the replaced equipment is estimated at \$18 million which brings the County's total Cost Avoidance figure to a One-Time amount of over \$45 million (Figure 1).

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*Actual/Estimated Annual Cost Savings: Difference in costs between operating the old system (\$2,521,224) and cost of new system (\$2,094,228) is an annual savings of \$426,996. (Figure 2)*

*Actual/Estimated Annual Revenue: 6989 Users (current) x \$420 (per unit/per year) = \$2,935,380 (Figure 3)*

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**FOR COLLABORATING DEPARTMENTS ONLY**

*(For single department submissions, do not include this page)*

**DEPARTMENT NO. 2 NAME AND COMPLETE ADDRESS**

COUNTY COUNSEL – 500 WEST TEMPLE STREET #648, LOS ANGELES, CA 90012

**PRODUCTIVITY MANAGER'S NAME AND SIGNATURE**

JESUS CASTILLO

EMAIL: JCASTILLO@COUNSEL.LACOUNTY.GOV

**DEPARTMENT HEAD'S NAME AND SIGNATURE**

MARY WICKHAM

EMAIL: MWICKHAM@COUNSEL.LACOUNTY.GOV

