

370C

**SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**



FROM: Public Safety Enterprise Communication Project Executive Steering Committee

SUBMITTAL DATE:
June 14, 2011

SUBJECT: PSEC Enhanced Coverage Sites Detail Design

RECOMMENDED MOTION: That the Board of Supervisors:

1. Consider the attached Addendum with the Final Environmental Impact Report for the County of Riverside's Public Safety Enterprise Communication (PSEC) Project, State Clearinghouse Number 2008021126;
2. Find that use of the sites referenced herein will not result in any new significant environmental effects, will not substantially increase the severity of previously identified significant effects and will not necessitate new mitigation measures;
3. Accept the enhanced portable coverage detail design and approve the additional communication sites; and,
4. Approve the use of Development Impact Fees, in the amount of \$1,700,000 for the expansion of Public Safety Radio Transmission sites, as needed, based on reimbursement for billings received.

(Continued on Page 2)

Stan Sniff
Stan Sniff
Sheriff-Coroner-PA

John Hawkins
John Hawkins
Chief, County Fire

Nathan J. Colodney
Nathan J. Colodney
Chief Information Officer

FINANCIAL DATA	Current F.Y. Total Cost:	\$ 1.7 M	In Current Year Budget: Yes
	Current F.Y. Net County Cost:		Budget Adjustment: No
	Annual Net County Cost:		For Fiscal Year: 11-12

SOURCE OF FUNDS: Development Impact Fees (Fund 30501)	Positions To Be Deleted Per A-30	<input type="checkbox"/>
	Requires 4/5 Vote	<input type="checkbox"/>

C.E.O. RECOMMENDATION: APPROVE
BY: *Serena Chow*
Serena Chow
County Executive Office Signature

FORM APPROVED COUNTY COUNSEL
BY: *NEAL R. KIPNIS*
DATE: *6/15/11*

Departmental Concurrence

Policy
 Policy
 Consent
 Consent

Dep't Recomm.:
Per Exec. Ofc.:

Prev. Agn. Ref.: 01/30/07 3.42b, 03/31/09 3.33, 02/9/10 3.41, 6/15/10 3.20
District: ALL
Agenda Number:

3.60

RE: Public Safety Enterprise Communications Project (PSEC)

July 6, 2011

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No other governmental agencies have implemented a system of the size and scope of Riverside County's – due to the sheer size of our county's boundaries and the technology being deployed.

After the project design work began, the Federal Communication Commission (FCC) mandated the rebanding of 800 MHz frequencies due to interference from commercial cellular transmitter sites – specifically, Sprint Nextel. The FCC, due to a shortage of 800 MHz spectrum, strongly encouraged that PSEC be reengineered and redesigned using the newly allocated 700 MHz frequency band, which is a spectrum reserved for public safety. As a result, Sprint Nextel was obligated to pay for Motorola reengineering expenses, County staff time and reimburse the County for the value of the current radios that will no longer operate under the new 700 MHz frequency band. The total reimbursement is \$6 million (\$3.0 million immediate payment and \$3 million reimbursed after current radios are returned to Sprint Nextel). Because the reengineering effort, as well as CEQA requirements related to site acquisitions, caused a twelve month delay, the Board of Supervisors approved a revised project completion date (3/31/09, #3.33) from the original completion date of October 2010 to October 2011.

The design of the new radio system included identifying sites for placement of fifty new radio towers. Once the required sites were identified, difficulties ensued in securing the sites. Protracted negotiations with property owners, federal government agencies, and state and federal environmental requirements caused a fourteen month delay in implementing the radio system necessitating changing the completion date to December 2012, and adding \$8.6 million in unanticipated expenses.

The final design coverage provided by Motorola, while providing the required mobile (car) coverage, did not provide the required portable (on hip) coverage. The PSEC Executive Steering Committee requested the PSEC Project Team and Motorola develop a solution to provide portable coverage. The enhanced coverage solution requires nine additional sites at an expense of \$2.66 million (\$1.72 million in land activity and a \$936,001 increase to the Motorola contract). The additional sites will be completed concurrent with the project and implementation of the entire completed system be fully activated by December 2012, assuming no further delays with property acquisition. Development Impact Fees (DIF) in the amount of \$2.66 million is available to fund the enhanced coverage solution.

On June 15, 2010 (M.O. 3.20) the Board of Supervisors approved the Fifth Amendment to the Motorola contract whereby the purchase of 3,200 radios was removed from the contract and a separate lease agreement with Motorola was entered into for radio leasing, resulting in a \$14 million reduction to the Motorola contract. This allowed the County to lease the original 3,200 radios plus 1500 additional radios (due to growth since the start of the project), thus avoiding \$8.9

million in additional radio purchases. As stated, in the June 5, 2010 Form 11, the rebanding credit from Sprint Nextel is to be applied to the radio lease payments through project completion. However, as a result of the project delays, the rebanding credit will not fully cover the radio lease payments through project completion. Therefore, an additional \$1,725,137 is needed to satisfy the radio lease agreement prior to the radio system activation. Upon activation, the radio lease agreement requires the user departments to make \$2.6 million annual radio lease payments to Motorola through 2020. Departments will commence making the monthly payments beginning January 2013.

Two non-PSEC costs arose in the past year that lacked funding and which the PSEC budget has been committed to fund. On October 19, 2010 the Board approved the use of \$1.5 million of PSEC funds to complete the FCC required Narrow Banding project to offset a cost of \$2.9 million the Fire Department needed to complete the Narrow Banding project. The second non-PSEC cost is the upgrade of the 911 Communications facility. Though not directly related to the PSEC project, \$1.7 million of PSEC funds have been committed to the upgrade, as well as an additional \$833,333 from the Radio Replacement Fund, for a total of \$2.5 million. In total, \$4 million has been diverted from the PSEC project to other needs. This represents approximately 35% of the original PSEC project contingency used for non-PSEC purposes. Neither of these costs was part of the original project, and therefore, has contributed to the increased project budget.

The original project budget included an \$11.3 million contingency, approximately 8.2% of the project budget. On February 9, 2010, Minute Order 3.41, the contingency was increased by \$4.1 million. With the leasing of radios, \$14 million was unallocated and available for contingency. These adjustments increased the project contingency to \$29.4 million. Since that time, site acquisition delays and related Motorola contract extension costs, the enhanced coverage solution, non-PSEC costs, and various change orders will potentially exhaust the contingency. These various project issues will, if all are approved, increase the project budget by \$11.1 million, increasing the project budget to \$159.4 million from \$148.3 million, a 4.1% increase. These issues, once resolved, will be brought back to the Board for approval.

PROJECT MANAGEMENT

During the course of this project a number of management missteps occurred. Contrary to industry practice, the previous RCIT management removed project budget authority from the project manager and retained that authority, while leaving the budget responsibility with the project manager. The bifurcated project budget management made it difficult for the project manager to monitor and manage project costs and plan for contingencies. RCIT Management allowed change orders to be negotiated with Motorola, approved by the PSEC Steering

Committee and work started, without proper change order delegation or Board of Supervisors approval. Finally, RCIT Management ceased to provide timely project updates to the Board of Supervisors. While the costs over-runs were unavoidable, the lack of proper management oversight jeopardized the successful completion of the project.

Current RCIT management is working to correct these errors by returning project budget oversight to the project manager and reinstating bi-monthly project updates to the Board of Supervisors. To insure the project is not delayed due to pending change orders, yet provide proper oversight, it is recommended that change order authority be delegated to the Purchasing Agent. The project has sensitive time lines and allowing the Purchasing Agent, with support from the PSEC team, to negotiate and approve necessary changes will expedite this process and help keep the project on track. Change orders that have been identified, but not yet approved by the Board, will be reviewed and vetted for necessity and cost reasonableness prior to approval by the Board.

This report has attempted to identify all costs associated with the PSEC project and a review of project management practices. As of the writing of this report, all known costs have been identified and included in the revised project budget. However, this was a review of the state of the current project budget and not an audit of the project budget and associated expenditures. There remains the risk of additional budget over-runs until the radio system is installed, tested and operational.

ANNUAL OPERATING COSTS

The annual operating budget of the PSEC Motorola radio system is projected to be \$13 million, consisting of approximately \$5 million in salary and benefits (appropriation 1) and \$8 million in other costs (appropriation 2, 3 and 4). This is an increase of over \$6 million in the annual operating cost of the current radio system. Although every effort has been made to minimize PSEC operational costs, this \$6 million cost increase was unavoidable given the sheer size of PSEC's coverage area and the system's complexity. In addition to the operating budget, the annual debt service payment for the bonds issued for the Motorola contract is \$11 million, bringing the total annual cost to \$24 million.

Coverage Area – PSEC's planned coverage area is 95% of the county or about 6,850 square miles, whereas the current radio system's coverage area is less than 4,300 square miles (less than 60% coverage). Achieving this 95% coverage area has necessitated the refurbishing of all 22 current radio sites and the addition of 54 more, for a total of 76 (almost 150% increase).

The operation and maintenance costs of each site have also increased due to a larger equipment "footprint". Among other things, the larger footprint has

increased the electrical and heat loads at each location, thus driving up electrical costs.

Furthermore, many of the sites are located in remote areas with no access to commercial power. Therefore, electricity at these remote sites must be supplied by co-located generators that run 24/7. Since fuel costs have spiked sharply in recent years, with no cost downturn projected, the high cost of fuel represents a significant portion of the increase in operational costs projected for PSEC (fuel costs alone are expected to be almost 10% of the PSEC operational budget).

Fleet and maintenance costs are also projected to increase significantly due to the large number of new sites that must be visited and maintained.

Complexity – The current 800 MHz system is a traditional analog radio system, with shared voice, very limited data services and little redundancy and system failover protection. The new PSEC Motorola communications system is a digital, computerized, and network-based environment, with fully segregated data and voice networks and extensive redundancy. The new system environment includes components and features that are minimal in comparison or do not exist in the current 800 MHz radio system, such as data and voice interoperability between county and non-county users and extensive data exchange between mobile users, both in vehicles and portable (on hip) devices. This has necessitated the deployment of new technology, such as 150 wireless network access points (4.9 data system “hotspots”) that requires new vendor software and hardware maintenance agreements to be established and network equipment to be installed.

For example, software maintenance costs paid to Motorola and other system vendors for radio system support is projected to be \$1.4 million. This is a new requirement that is not necessary with the current 800 MHz system.

Shared Governance – The oversight and management of PSEC will be through formal enterprise governance, with representation from Sheriff, Fire, CHA, TLMA, RCIT and other stakeholders, including new users who join the system. The PSEC Commission will work towards developing and enhancing the system in the years ahead for the benefit of its users and will be dedicated to the administration of the system, separate from the operational staff. There is no equivalent organization overseeing the current 800 MHz radio system.