

Council Technology Application Committee Meeting

Wednesday, October 29, 2008

4:30 P.M. to 6:00 P.M.

Hayward City Hall

777 B St. Hayward

Conference Room 4A

Hayward, CA 94541

AGENDA

Public Comments: (Note: For matters not otherwise listed on the agenda. The Committee welcomes your comments under this section but is prohibited by State Law from discussing items not listed on the agenda. Your item will be taken under consideration and referred to staff.)

1. Minutes of September 17, 2008 (Attached)
2. East Bay Regional Communication System (EBRCS) discussion
3. Member Comments

Distribution:

Mayor and City Council
City Manager
Assistant City Manager
Assistant to the City Manager
Community & Economic Development Director
City Attorney
City Clerk
Finance Director

Fire Chief
Human Resources Director
Library Director
Police Chief
Public Works Director
Technology Services Manager
Daily Review
Post

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CITY OF
HAYWARD
HEART OF THE BAY

**Council Technology Application Committee (CTAC)
Meeting Minutes of September 17, 2008**

Members Present: Michael Sweeney, Olden Henson and Bill Quirk

Staff: Greg Jones, Fran David, Clancy Priest and Desi Calzada

Public Comments: None

1. **Approval of Minutes:** Approved

2. **Public Safety Radio System Update:**

The Technology Services Director, Clancy Priest introduced Communications Manager, Desi Calzada to give an update on the project. He reported that in 2002, Police and Fire began experiencing critical failures to our infrastructure, therefore moving us forward to stabilize and upgrade the system. The new Tower site is located at Walpert and is owned by City. There are currently no "Dead Spots" throughout the City and may just experience a lower signal in areas. So far, coverage issues are only experienced inside some areas of hospital buildings.

3. **Emergency Point-to-Point Wireless System Report:**

Clancy Priest reported that in 2004 the Council wanted to redo our Emergency Operations Center. Some research was done and this was a good opportunity to do a Point-to-Point Wireless System. Studies were done to determine what the signal availability would be from our 18 geographical locations. A Point-to-Point System was purchased from 100 Alpha and installation and testing was done last month, the system far exceeded expectations. We are currently working with Verizon Wireless on finding a solution for reception up in the hills. Verizon is looking into installing 3 flag poles which are cell towers at Fire Station 5 and hopefully can pursue that path. Verizon is also looking into using the Corporation Yard as a tower location for more coverage.

4. **Member Comments:**

Clancy Priest informed the Committee that he is working with the City Manager's Office on a "Strategic Plan".

Council member Olden Henson requested that the City performs an EOC drill and tests its equipment on the Technology end and suggests that the City starts moving in that direction. He would like to see something come back to committee with regards to Technology. The City Manager, Greg Jones, notified the Committee that beyond the Technology part of it, the Fire Department is already putting together an exercise and hope to do that this Fall. Clancy Priest informed the committee that he is currently working with a vendor on getting a collective training issue going. Clancy Priest reported that Technology Services purchased 270 new PC's with Dell at a per unit price of \$630 each. These computers are energy efficient units.

Meeting adjourned at 5:00pm



DATE: October 29, 2008
TO: Council Technology Application Committee
FROM: Clancy Priest, Technology Services Director
SUBJECT: East Bay Regional Communication System (EBRCS) Discussion

RECOMMENDATION

That the Committee discusses and provides Council a recommendation regarding EBRCS.

BACKGROUND

The City of Hayward joined the EBRCS in 2007 as one of the charter members. The fee for participation is currently \$75,000.00 annually. This fee was calculated by the number of operational radio units of the participating entity. The initial calculation for the City was 750 units at \$100.00 per unit. This fee is a recurring annual fiduciary responsibility for each member agency.

DISCUSSION

The Council held a work session discussion concerning continued participation in the EBRCS on October 7, 2008. During the meeting it was decided that the question of continued participation would be referred back to the CTAC for further discussion. Some of the issues that the Council felt warrants further discussion were:

- Whether the City should continue with our participation in EBRCS
- What benefits will result in further participation
- The costs of participation
- Board membership for Hayward
- What are the future fiduciary responsibilities
- What are the funding sources that can be expected/explored
- Regional initiatives for cooperation

Bill McCammon, Executive Director of EBRCS, is scheduled to attend to address questions the CTAC may have.

FISCAL IMPACT

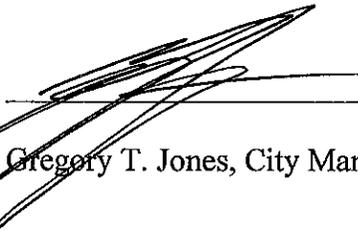
A recurring \$75,000.00 annual fee for continued participation, plus the future cost of a replacement radio system that will function with the proposed EBRCS infrastructure.

Prepared by:



Clancy Priest, Technology Services Director

Approved by:



Gregory T. Jones, City Manager

Attachment:

East Bay Regional Communication System work session report.



WS 2

DATE: October 7, 2008
TO: Mayor and City Council
FROM: Interim Police Chief
SUBJECT: East Bay Regional Communication System (EBRCS) Participation

RECOMMENDATION

That Council receives and reviews this report.

SUMMARY

In 2007, the East Bay Regional Communications System Agency (EBRCS), a joint powers agency, was formed to procure, install and maintain a digital 800/700 MHz P25 trunked radio system for both Alameda and Contra Costa Counties. There are 39 member agencies that have joined the EBRCS, including Hayward. In Alameda County, the cities of Oakland, Piedmont, and Berkeley have not joined EBRCS and are performing needs assessment to determine their participation. Hayward just recently completed a system upgrade and has the newest radio system in Alameda County (outside of the new EBRCS system).

The EBRCS has awarded the contract to Motorola, who has already begun to install equipment for the new system. CTA Communication Consultants was retained by EBRCS and the City of Oakland to provide an independent verification of the Motorola system design and to make funding recommendations to EBRCS. The EBRCS has estimated the cost of infrastructure to be \$68,116,171. The EBRCS has received or is receiving \$33,974,135 in Federal grants or earmarks. This leaves an estimated unfunded cost of \$34,142,036.

While Hayward is committed to providing interoperability, the City currently can provide interoperability without discarding the recent equipment upgrades. By continuing to use the new equipment for the next couple of years, Hayward can get more return on its investment and begin to save for the transition to a new system.

BACKGROUND

Organization: In 2003, the City of Oakland and Alameda and Contra Costa Counties began meeting to discuss how to improve interoperability between the counties and the cities contained therein. Meanwhile, Alameda County's trunked 800 MHz radio system was beginning to experience serious maintenance problems. Due to the age of the equipment and availability of parts, it was becoming very hard to maintain.

In 2005, Alameda County released a Request for Proposal (RFP) for a new P25¹ 800 MHz trunked system to replace their Motorola SmartNet System. The RFP was written to replace Alameda County's system only. Since the RFP was an Alameda County only procurement, other agencies were not involved in the procurement of the new system. Alameda County's RFP required that the new system be backward compatible with their current proprietary SmartNet System. This was required to provide for smoother migration for current users. However, that requirement eliminated other vendors, since the SmartNet system was a Motorola proprietary system. Alameda County eventually entered into negotiations with Motorola and awarded them the contract.

Motorola began delivering the initial system in late spring of 2006. Part of the Motorola procurement included a comprehensive system design. This was based on Alameda County's primary concern to improve their current system. Knowing that Contra Costa had a desire for a county wide system, Motorola offered to provide a two-county system design.

Contra Costa County and its staff began discussions with Alameda County on the conceptual design and formation of a two county radio system. Contra Costa County was very concerned that (a) the original Alameda County RFP was not competitive, and that (b) the system design would not meet the needs of its users.

Based on their concerns, Contra Costa County hired CTA Communications, Inc., a consultant, to render a third-party opinion on the viability of the Motorola design and pricing. CTA's report seemed to support the plan of a two-county radio system. However, the report identified system design concerns for Contra Costa County. CTA also discussed that the pricing that Motorola provided was "high."

Both counties realized from the onset that they would need some form of joint governance in order for the system to grow. On September 11, 2007, the East Bay Regional Communications System Authority (EBRCS) was formed as a joint powers authority among both counties and all but three (3) of the cities within Alameda County: Oakland, Piedmont, and Berkeley, and the City of Orinda in Contra Costa County. Currently there are thirty five (35) member agencies

¹ **Project 25 (P25)** is a set of standards produced through the joint efforts of the Association of Public Safety Communications Officials International (APCO), the National Association of State Telecommunications Directors (NASTD), selected Federal Agencies, and the National Communications System (NCS), and standardized under the Telecommunications Industry Association (TIA)... The P25 suite of standards involves digital Land Mobile Radio (LMR) services for local, state, and national (federal) public safety organizations and agencies. Although developed primarily for North American public safety services, P25 technology and products are not limited to public safety alone and have also been selected and deployed in other private system application, worldwide.^[1]

consisting of 29 cities and 4 special districts (see attachment). The Board of Directors is made up of 23 representatives allocated among the various entities as follows:

EBRCS

The Board of Directors: 23 members made up of equal representation from both counties.

- (2) Police Chiefs Association***
- (2) County Fire Chiefs Assn***
- (1) Special District**
- (1) Alameda County (CAO)**
- (1) Contra Costa County (CAO)**
- (2) County Sheriffs***
- (3) City Managers Contra Costa County****
- (3) City Managers Alameda County****
- (3) Elected Officials Alameda County*****
- (3) Elected Officials Contra Costa County*****
- (2) One member of each Board of Supervisors**

**one representative from Contra Costa and one from Alameda*

***selection to be determined by each County's City Managers Association*

**** selection to be determined by the Mayor's conference of each County*

Under the direction of the board, the JPA hired Retired Fire Chief Bill McCammon as Executive Director. According to the EBRCS Bylaws, the Executive Director is appointed by a majority of the Board of Directors.

Base Technology: In the 1990's, the Association of Public Safety Communications Officials (APCO) appointed a committee to explore the possibility of establishing an open, standards-based protocol for digital radio systems. This committee became known as the Project 25 Committee.

P25 created an open standard, which allows equipment adhering to the standard to be compatible regardless of the manufacturer. Until the creation of P25, some radio systems used proprietary protocols to communicate with the base stations. This did not always allow equipment from different manufacturers to be compatible across radio systems. This created incompatible systems and large communication gaps for public safety personnel.

The P25 standard also created the opportunity for competition and more favorable purchasing, since equipment can be purchased from more than one manufacturer. P25 is a work in progress. Although several standards have been created, the Committee is still in the process of defining some interfaces including the Console Subsystem Interface (CSSI) and the Inter RF Subsystem Interface (ISSI). These interfaces will further expand the capability of a digital network by using internet protocol (IP) technology to allow systems to interconnect from base station to base station.

In early 2008, the P25 Compliance Assessment Program (CAP) was developed to assure that equipment being advertised as P25 compliant actually was. The P25 CAP has four (4) long-term goals: (1) ensure that the technologies meet the needs of field end users; (2) assist governments in making informed purchasing decisions regarding P25 equipment; (3) provide standard testing procedures across all vendors; and (4) support the eventual implementation of standards-based infrastructure for first-responder communications. (See Exhibit 1 from Homeland Security.)

In 2004-2005, the Alameda County Grand Jury noted that most agencies in the county had a concern about "interoperability" (i.e., the ability of first responders in all jurisdictions within the County to communicate with one another using a common platform.) The Grand Jury Report for that year noted:

"Investigation by the Alameda County Grand Jury of local agencies discovered a common concern regarding interoperability. Mutual Aid in the mitigation of local incidents depends on quick response from the nearest district. Communication is hampered when the assisting districts cannot identify the needs of the local department managing the incident because of the differences in communication equipment. The injection of a terrorist attack or major disaster would compound this problem. Interagency cooperation and coordination are critical. The disparity in communication systems of individual rescue agencies is a hindrance. Coordination for saving lives and property in a disaster could be hampered. One problem with achieving interoperability in the Bay Area is various agencies using different radio systems. In addition, available airwave systems for public safety agencies are almost depleted."

The Alameda County Grand Jury again reviewed the issue of interoperability and the new JPA. The 2006-2007 report states:

"Both national and state reports were in general agreement that governmental organizations created to improve interoperability should develop a vision with specific supporting goals and objectives. The decision-making process should include as many affected jurisdictions as possible, rely on their assessment of local needs and vulnerabilities, enhance communication, coordination, and cooperation among them, provide for dispute resolution, and prevent turf wars. Both of these reports also agreed that moving directly to an optimum system at their respective level is not financially feasible, and that solutions must be found which allow affected jurisdictions to "leverage existing systems while migrating gracefully but expediently to the ideal." The California Statewide Integrated Public Safety Communications Strategic Plan emphasized that training and exercises that practice communications interoperability are essential to ensuring that the technology works and that responders use it effectively during emergency operations.

The goal of promoting wide membership in order to facilitate public funding would seem to argue for inclusion, or at least provision for collaboration and coordination with as many potential members and subscribers as possible. There is conflicting information on the extent of inclusion and coordination prior to adopting the JPA. Whatever the case, from here forward, every attempt should be made to be as inclusive as possible.

The Grand Jury believes that the ultimate goal of radio communications interoperability is worthy, particularly in view of the Bay Area's susceptibility to flood, fire, major earthquake, and possible terrorist attack. Once individual cities have the opportunity to decide whether to

join the JPA, future Grand Juries should closely monitor the cost of the EBRCS and its implementation. While there is a general, although not unanimous, feeling that high levels of interoperability are desirable for disasters such as 9/11 and Katrina, a lesser degree of capability may be sufficient for day-to-day police and fire operations. Federal grants should be aggressively pursued. Independent cost analysis should be obtained to determine if there are costs savings. Competitive bidding should be utilized. Comprehensive operating procedures including training and regularly scheduled exercises should be developed.

Ultimately, the public will benefit from a truly inclusive JPA that will provide the capability to deal at an acceptable level with major disasters anywhere in the Bay Area, as well as ongoing daily interactions in local jurisdictions. This system will hopefully include the potential for long range integration into a statewide system, backward compatibility allowing cities to enter the system using present equipment effectively, and a capability to upgrade to the ideal level, as local conditions and financial circumstances permit.”

The EBRCS System: Motorola has been awarded a contract to build the EBRCS P25 system. The system proposed by Motorola will consist of five (5) geographic zones and 32 transmitter sites spread throughout the two counties. These five (5) zones will work as sub-systems within the larger system. This design will allow for more efficient use of available frequencies between the two counties.

Hayward will be located in the Alameda County West Cell. The current system design has identified the following sites to provide coverage to the City of Hayward –Walpert Ridge, San Leandro Hills, Garin Water Tank, and Coyote Hills. Each of these sites will transmit at the same time providing radio coverage from South Oakland to San Jose. Each of the users within each of the sub systems should have complete system access in their local area coverage. Coverage while roaming outside of your home area has not been completely defined. However, the goal will be to provide at least some level of radio coverage while roaming within the two county system footprint.

Motorola has produced coverage maps using these proposed sites. Based on Motorola’s maps, coverage in most of Hayward appears to be within normal limits. However, the map also shows some coverage gaps in the commercial west end and along the Mission Blvd. area. While these maps give a good predicted coverage area, true tests will need to be conducted when the system goes live.

The new system was designed to use both 800 MHz and 700 MHz frequencies. 800 MHz frequencies are currently being used in the Alameda County System. They are owned and licensed to Alameda County and ready to be used. The 700 MHz frequencies² are scheduled to become available in February 2009. The 700 MHz frequencies will supplement the current 800 MHz channels. Most of the new 800 MHz radio equipment is compatible with both frequency ranges.

² The 700 MHz spectrum was previously used for analog television broadcasting, specifically UHF channels 52 through 69. The FCC has ruled that the impending switch to digital television will make these frequencies no longer necessary for broadcasters, due to the improved spectral efficiency of digital broadcasts, thus placing them up for auction and use by others.

The EBRCS is interested in utilizing both the Walpert Ridge and Garin Water Tank sites in the new P25 System. For the Walpert Ridge Site, the EBRCS would like to replace one of the older communications buildings with a newer, more stable facility. This new building will house the new P25 EBRCS equipment. The EBRCS has also identified that the power on the site will need to be upgraded to a 400 Amp service.

At the Garin site the EBRCS, would like to co-locate their equipment in our existing communications building. Their engineers have determined that there is sufficient space for their equipment to be co-located with ours. The electrical service at Garin will also need to be upgraded to a 200 Amp service. The EBRCS would also like to add an additional 20 ft extension onto our 60 foot communications tower. This extension is required to provide sufficient clearance from the new water tank that will be installed at a later date.

Both of these sites are very important in Motorola's system design. In fact, Motorola's current system design has already identified the use of both of these Hayward sites in the new system. These sites provide coverage not only to Hayward but to some of the surrounding areas. The Garin site will be very critical to the coverage in Union City, Newark and North Fremont.

However, Hayward is still waiting for an official agreement from the EBRCS. Currently, the EBRCS has begun planning for some upgrades to each of the sites. If use is granted, Executive Director Bill McCammon has verbally agreed to perform the necessary power upgrades for both Garin and Walpert Ridge, presumably at no cost to the City of Hayward. Mr. McCammon has also discussed that the EBRCS would be willing to pay their proportionate share of all utility and maintenance costs for the sites. However, the EBRCS does not appear willing to pay for the use of any property from member agencies (i.e., lease the tower and other sites they want to use.)

DISCUSSION

City of Hayward's Current System: In 2002, the City of Hayward's Public Safety Radio Network was failing, and the safety of the public and employees was being affected. In 2005, the City of Hayward began upgrading its entire Public Safety Radio Network. The project included upgrading the following: the microwave radio system, site infrastructure, base stations, antennas, dispatch consoles, replacement radios for the Police Department, and level three interoperability enhancements.

The City of Hayward operates a Conventional UHF Simulcast Public Safety Network. The system supports both Police and Fire operations for the City of Hayward and Fire operations for the Community of Fairview. The system is operated using four radio towers strategically placed throughout the City: Garin Ridge, Walpert Ridge, Hesperian (water pump station), and the Police facility. The primary site is the police facility located on West Winton Avenue. This site houses the primary controllers and provides an interface to the Public Safety Communications Center co-located in the police facility. Each of the remote sites is connected via a microwave system. This system was designed to provide protected and reliable connectivity to the other remote sites. This new microwave system also serves as the backbone for the city's wireless network.

The City of Hayward has completed the Public Safety Radio Upgrade it began in 2005. The following system and sub-systems have been upgraded as a result of this project:

1. Installation of new site in South Hayward on Garin Ridge.
2. Provide enhanced portable coverage with 97% coverage and 92 % reliability throughout coverage area
3. Provide new digital microwave system with expanded capacity to support digital data network
4. Provide new dispatch consoles for dispatch center, providing each position with radio capabilities. These consoles will provide the following enhancements
 - a. Improved radio interoperability
 - b. Provide Police and Fire Fighter Emergency Assistance Alerts
 - c. Provide expanded radio identification features
5. Expand dispatch consoles for each position in the Communications Center
6. Provide the Police Department with upgraded portable radios which will
 - a. Allow for consistent portable radio configurations
 - b. Allow for emergency officer down function for each radio

We have finally finished the last phase of the installation which included the interoperability patch with the Alameda County GSA System. This final phase provides interoperability with Alameda County, Union City, Fremont, San Leandro, Newark, CSU East Bay, and BART (In progress).

This interoperability must be managed in the Public Safety Communications Center. In the Communications Center, the Communication's Supervisor can patch a Hayward channel to a channel of one of our neighbors. When this patch is activated users can talk between systems without having to swap radios. This will allow us to patch statewide mutual aid channels or other common channels together during emergency situations.

On the EBRCS System, users will share the same frequencies. It is envisioned that every portable radio will be programmed similarly allowing for users to switch to any other participating agency's channels without dispatcher intervention. From a field user's position, this would allow for more flexibility since they would have control over which talk group they can join. It may not be operationally necessary for that to occur. From an end user perspective, both solutions provide a means for a Hayward officer or fire fighter to have the ability to communicate with its neighbors, who may use a different system.

Benefits and Impacts of Remaining in EBRCS: Hayward's presence on the EBRCS has several benefits from a design and implementation perspective. Our presence in the design process is allowing us to provide input to Motorola early in the process, and influencing the placement of equipment and sites as feasible. As the EBRCS becomes more active, they will be relying on participating agencies to determine the policies and practices of the JPA. Being a part of the development is definitely in the interest of any potential or current member.

From a radio coverage perspective, there is a benefit to having larger roaming capabilities that will be offered by being a part of a large regional system. This expanded "footprint" will definitely provide some flexibility for our employees.

Operationally, a trunked radio system uses frequencies much more efficiently than a conventional system, like Hayward. This efficiency allows for more talk groups and system capacity. Interoperability will be enhanced since every individual user will have the ability to talk to any other participating agency without dispatcher intervention.

The EBRCS system model is a state of the art digital system. This system has the potential to allow some enhanced capabilities including the use of both data and voice on the network. Again, the JPA will need to make the decision on what specific features they ultimately decide to implement.

However, there is some concern about a digital system. There is still a lot of discussion among public safety, especially fire departments, over the use of a digital system for mission critical communication. Most recently the International Association of Fire Chiefs (IAFC) studied the differences between analog and digital radio systems. In their report the IAFC found that analog communication was more intelligible than digital in six of nine high noise environment tests (i.e., communications \ could be heard better by those dependent on them in the field.)

It is assumed that the EBRCS system, like many new installations, will have design or implementation problems. For public safety, communication failures can be disastrous. Minimizing failures and providing predictable reliable communications is essential. There is rarely much benefit being one of the first users of a new digital system. In fact, it may be stressful to first responders as the system stabilizes.

There is a risk that the current Motorola system design may need to be expanded. While Motorola would argue that they will be able to provide sufficient coverage for the participating agencies, Motorola is making an assumption that every agency will be agreeable to the coverage the system is set to provide. Some agencies will be satisfied with system coverage. However, there will be some agencies that will not. As mentioned earlier, Motorola's coverage study shows some areas for concern in the commercial west area of Hayward and along the Mission Blvd. corridor. Hayward will not accept a lower level of coverage than what it has through its current system. What has not been determined is who will pay to provide this "enhanced" coverage. It can be assumed that eventually all members of the JPA will pay for the increased costs either individually or co-operatively.

The 2007 CTA report identified that the cost of the system appeared to be less competitive than they have seen in comparable installations. The report also identified that there may be infrastructure costs that were not identified as either equipment or services. However, it should be noted that the EBRCS is in the process of re-negotiating the purchase of the remaining equipment. It is hoped that the EBRCS may realize more competitive pricing in this 2nd phase of procurement.

Based on data provided by the EBRCS, dated August 2008, there remains \$34,143,036 in unfunded project costs. This assumes that the project does not exceed its contingency funding of \$5,556,999.

In any case, it is not unreasonable to expect that unfunded costs will need to be shared by participating agencies.

Currently EBRCS is billing participating agencies a \$100 per-unit, per-year fee. These monies are being used to support administrative costs and matching fund requirements. However, it's safe to assume that as administrative costs begin to increase, per unit fees will also need to increase. CTA Consultants has been retained by the EBRCS to provide a funding plan for the future.

Impacts and Risks of Leaving EBRCS: As mentioned above, leaving EBRCS could provide Hayward less of an influence in the process. However, based on the Alameda County Grand Jury 2007 report, staff believes that the EBRCS will continue to be inclusive and collaborate with as many potential users as possible. While it may not allow for a seat on any decision making board, it could allow Hayward continued influence on a technical and operational level.

However, as mentioned earlier, Hayward is in the unique position of having a new radio system. This system, while not trunked, provides for reliable and effective communications within our borders and surrounding areas. Leaving the EBRCS is not as critical for us as it is for some of our neighbors. Current members of the Alameda County 800 MHz system are becoming very anxious about the condition and performance of the current system. However, many of those agencies have been purchasing P25 compatible radios for the last year. This will allow them to phase in the costs of replacement units.

Hayward does not have that benefit. For Hayward, other than the digital microwave, none of the current equipment is compatible with the new P25 system.³ Therefore, joining the EBRCS for Hayward will likely require the replacement of all current radio equipment with new equipment compatible with the EBRCS system. While the costs for this equipment vary, it is not unreasonable to believe these costs to be in excess of \$1,000,000.

Another factor is the risk of loss of momentum. The reality is there are many others looking at the synergy of the project. As mentioned above, there are already cities that are not part of the EBRCS. Hayward would be the first participating agency to drop its membership. While we have conditions that are unique to Hayward, we may open the door for other agencies to leave EBRCS. Currently Hayward is paying more to support EBRCS than any other participating agency. Hayward's lack of participation will impact other agencies, since it's assumed that they would need to compensate for our lack of financial support.

Currently the EBRCS is considering establishing a founding members group and a new members group. It's unknown how EBRCS might treat Hayward if we were to request to join at a later date.

Considering the financial impact, the condition of Hayward's Public Safety Communication Network, and that interoperability patches that the City has installed, it seems a strong possibility

³ Motorola offered the City exceptional pricing and financing at a time that the old radios were failing. Staff made the determination that it was not in the best interests of first responder safety to wait any longer on radio replacement, and that given the likely implementation schedule of EBRCS, we would get good value from the equipment before it had to be replaced going into the two-county system.

that Hayward should remove itself from EBRCS. This will allow Hayward the opportunity to get more return on the investment the City just completed.

However, if the City does make this decision, it is imperative that Hayward should continue to cooperate and collaborate with the EBRCS as much as possible. Assuming that EBRCS would allow it, Hayward could continue to participate on the various technical committees that currently are associated with the two-county system.

FISCAL AND ECONOMIC IMPACT

Costs to EBRCS: In their proposal, Motorola estimated the cost at \$68,116,171 for both counties. However, that estimate did not include buildings or upgrades to any infrastructure. The CTA Consultants' report in April 2007 estimated that there is a potential for another \$20,000,000 in upgrades for infrastructure between the two counties.

This contract award did not provide for any portable or mobile radios. Each member agency is responsible for the purchase of their portables and mobiles. Estimates from CTA's 2007 report estimates that between the two counties those radios could cost as much as \$37,000,000. There is some discussion that the JPA may offer a lease/purchase option to help member agencies meet the replacement costs of portable and mobile radios.

Based on data from the EBRCS, the JPA has only received \$33,974,135 in grants from Homeland Security Grants and Federal earmarks. This leaves unfunded costs at \$34,142,036. The JPA, through the Bay Area Super Urban Area Security Initiative SUASI, is continuing to apply for grant funding each year. However, based on the trend of lower allotments, it is reasonable to believe that grant funding will not be able to fund the entire project.

Costs to the City of Hayward: Currently EBRCS is billing Hayward \$75,000 annually. Staff is reviewing the potential to lower this cost to approximately \$45,000. While EBRCS has not committed to its future funding amounts, it is safe to assume that there will be an increase in fees as the system becomes active. Any estimate on the potential costs would be inaccurate. We must wait for the EBRCS report before making any assumptions.

However, there is an expectation that participating agencies will go "live" when the system becomes operational in their jurisdictional coverage area. For Hayward, EBRCS is moving quickly to install equipment. This feasibly places us at a late 2009 or early 2010 implementation.

When an agency goes "live" on the system, there will be a monthly or annual system fee for each unit. Again, CTA Consulting is in the process of identifying those funding requirements. It is reasonable to assume that those fees will be between \$20 - \$60 per month per piece of equipment. Based on the current number of users, Hayward could pay \$108,000 - \$324,000 annually.

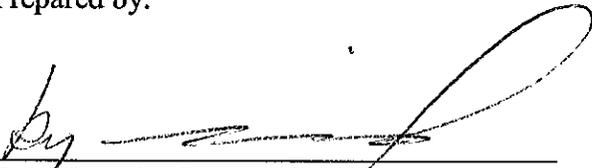
Based on current estimates from Motorola representatives, it is not unreasonable for Hayward to expect upward of \$1,800,000 in new equipment purchases for just mobiles and portables.

SCHEDULE

Meeting information is posted at <http://www.ebrcsa.org>

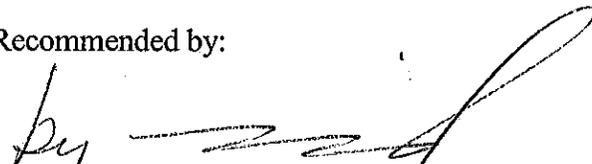
Meetings of EBRCS are generally at the Office of Homeland Security and Emergency Services, located at 4985 Broder Boulevard, Dublin. It is likely that EBRCS leadership and members will be looking for a response from Hayward at next meeting as to continued membership.

Prepared by:



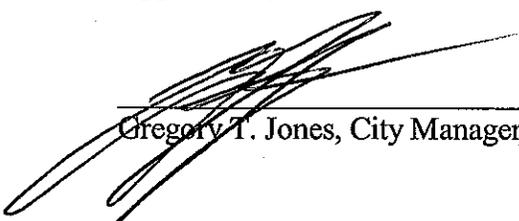
Desi Calzada, Communications Manager

Recommended by:



Ron Ace, Interim Police Chief

Approved by:



Gregory T. Jones, City Manager

Attachments: EBRCS Participants
EBRCS Financial Overview
EBRCS Board Members

East Bay Regional Communications System Authority

Participating Counties:	
Alameda County	http://www.acgov.org
Contra Costa County	http://www.co.contra-costa.ca.us
Participating Cities:	
City of Alameda	http://www.ci.alameda.ca.us
City of Albany	http://www.albanyca.org
City of Antioch	http://www.ci.antioch.ca.us
City of Brentwood	http://www.ci.brentwood.ca.us
City of Clayton	http://www.ci.clayton.ca.us
City of Concord	http://www.ci.concord.ca.us
Town of Danville	http://www.ci.danville.ca.us
City of Dublin	http://www.ci.dublin.ca.us
City of El Cerrito	http://www.el-cerrito.org
City of Emeryville	http://www.ci.emeryville.ca.us
City of Fremont	http://www.ci.fremont.ca.us
City of Hayward	http://www.ci.hayward.ca.us
City of Hercules	http://www.ci.hercules.ca.us
City of Lafayette	http://www.ci.lafayette.ca.us
City of Livermore	http://www.ci.livermore.ca.us
City of Martinez	http://www.cityofmartinez.org
Town of Moraga	http://www.ci.moraga.ca.us
City of Newark	http://www.ci.newark.ca.us
City of Oakley	http://www.ci.oakley.ca.us
City of Pinole	http://www.ci.pinole.ca.us
City of Pittsburg	http://www.ci.pittsburg.ca.us
City of Pleasant Hill	http://www.ci.pleasant-hill.ca.us
City of Pleasanton	http://www.ci.pleasanton.ca.us
City of Richmond	http://www.ci.richmond.ca.us
City of San Leandro	http://www.ci.san-leandro.ca.us
City of San Pablo	http://www.ci.san-pablo.ca.us
City of San Ramon	http://www.ci.san-ramon.ca.us
City of Union City	http://www.ci.union-city.ca.us
City of Walnut Creek	http://www.ci.walnut-creek.ca.us
Non Participating Cities:	
City of Oakland	http://www.oaklandnet.com
City of Piedmont	http://www.ci.piedmont.ca.us
City of Berkeley	http://www.ci.berkeley.ca.us
City of Orinda	http://www.ci.orinda.ca.us
Participating Special Districts:	
East Bay Regional Park District	http://www.ebparks.org
Kensington Police Community Services District	http://www.kensingtonpolicecsd.org
Rodeo-Hercules Fire Protection District	http://www.rhfd.org
San Ramon Valley Fire Protection District	http://www.srvfpd.dst.ca.us

**East Bay Regional Communications System Authority (EBRCSA)
Financial Overview August 2008**

GRANTS RECEIVED/PENDING

Year	Grant Fund End Date	Source	Alameda County	Contra Costa County	Total	Status
2004		UASI	\$5,400,000	\$0.00	\$5,400,000	Received
2004		SHSGP	\$5,519,819	\$150,000	\$5,669,819	Received
2005		UASI	\$1,473,114	\$737,732	\$2,210,846	Received
2005		SHSGP	\$0.00	\$346,854	\$346,854	Received
2006	03/2008	SUASI	\$2,000,000	\$1,000,000	\$3,000,000	Received
2006	03/2008	SHSGP	\$1,300,000	\$835,000	\$2,135,000	Received
2007	03/2010	SHSGP	\$1,457,912	\$831,755	\$2,289,667	Received
2007	03/2010	SUASI	\$645,425	\$851,425	\$1,196,850	In Process
2007	09/2010	COPS	\$500,000	\$1,500,000	\$2,000,000	In Process
2007	09/2010	COPS*			\$500,000	In Process
2008	03/2009	Earmark			\$808,000	In Process
2008		SHSGP	\$1,358,767	\$850,000	\$2,208,767	In Process
2008	06/2011	PSIC**			\$4,968,666	Requested
2008		PSIC**			\$1,241,666	Requested
GRAND TOTAL					\$33,974,135	

* A local match is required in order to receive the grant allocation.

** The City of Oakland may receive a portion of this funding.

ESTIMATED INFRASTRUCTURE PROJECT COSTS

*Motorola Proposal less Microwave	\$55,569,990
Contingency @ 10%	\$5,556,999
Harris Microwave	\$6,989,182
** Total Estimated Project Costs	\$68,116,171

* The Motorola proposal was requested by Alameda County. Motorola is currently under contract with Alameda County for \$16 million to build existing infrastructure. A new bid will be issued for the final phases of the project, which will change the total infrastructure cost.

** This cost is for infrastructure and does not include the cost of subscriber units required to operate on the system.

PROJECTED FUNDING GAP

Total Estimated Infrastructure Project Costs	\$68,116,171
Grants Received/Pending	\$33,974,135
Total Estimated Unfunded Project Costs	\$34,142,036

As of 9/2/08

EBRCSA CURRENT BOARDMEMBERS

County Representatives

Scott Haggerty, President, Alameda County Board of Supervisors

Susan Bonilla, Supervisor, Contra Costa County

Warren Rupf, Sheriff, Contra Costa County

Greg Ahern, Sheriff, Alameda County

Susan Muranishi, County Administrator, Alameda County

David Twa, County Administrator, Contra Costa County

City Representatives

Jennifer Hosterman, Mayor, City of Pleasanton

Beverly Johnson, Mayor, City of Alameda

Janet Lockhart, Mayor, City of Dublin

Leonard McNeil, Councilmember, City of San Pablo

Bill Shinn, Mayor, City of Concord (Currently serving as Board Chair)

Abram Wilson, Mayor, City of San Ramon

Brock Arner, City Manager, City of San Pablo

Linda Barton, City Manager, City of Livermore

Joe Calabrigo, Town Manager, Town of Danville

June Catalano, City Manager, City of Pleasant Hill

Larry Cheeves, City Manager, City of Union City

John Jermanis, City Manager, City of San Leandro

Public Safety Representatives

Dale Attarian, Police Chief, City of San Leandro

Scott Kirkland, Police Chief, City of El Cerrito

Keith Richter, Fire Chief, Contra Costa County Fire Department

Bill Cody, Fire Chief, Livermore/Pleasanton Fire Department

Special District Representative

Tim Anderson, Police Chief, East Bay Regional Park District

Bill Quirk

The EBRCSA system will provide true interoperability, greater functionality, at a lower cost than a standalone system. Staying with an analogue system will deny the City true interoperability. It has been 7 years since 9/11. The wait has been too long already. The grand jury supported the regionalized approach to providing public safety communications. I suggest that this matter be taken up by the Council technology to iron out the problems. Leaving EBRCSA will create more problems than it solves.

The future of communications is digital. Even analogue radios are run by digital systems. The concern about digital radio noise is overstated; the manufacturers have developed solutions to deal with the noise issue that appeared in the first generation of digital radios.

The Federal Government will only provide grant funds to regional communications systems. Leaving EBRCSA would cost Hayward access to Federal funds.

I believe that to get access to Federal funds that Oakland and Berkeley will join EBRCSA. CTA Communications is under contract to complete a study for the City of Oakland to answer questions the city had about their existing system and make recommendation as to how the City could join the EBRCSA. The City of Berkeley has a study under way to determine whether they should join the EBRCSA.

While some coverage issues have been identified in Hayward, the EBRCSA and representatives from the agencies involved are working with Motorola to develop a solution.

The EBRCSA will not push users on to the system before it has been thoroughly tested and ready for system users. We will not be the first City to use a P25 system.

The EBRCSA is not locked into the existing Motorola contract and will be working with CTA Communications to develop a set of specifications that can be bid for the remaining infrastructure. The bid will be out at yearend.

The purchase of radios is not limited to Motorola, any vendor that makes P25 compliant radios will work on the system, there at least 4 different vendors today.

The amount of money paid to the EBRCSA is determined by the City of Hayward given the number of radios the City chooses to operate on the system. By not including the public works radios, the amount could be reduced from \$75,000 to \$45,000.

The monthly user fee has not been determined yet. CTA Communications will be developing a cost model as part of their work. Nationally the costs average between 20-30 dollars per month

Representation on the EBRCSA Board is determined by the organizations. There is nothing precluding the Alameda County Mayor's Conference from appointing a City Council member to the Board. One of the Board members, and one of the Alternates from Contra Costa are city Council members.