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2013 DEC -5 PM 1:43

# AGENDA REPORT

**TO:** DEANNA J. SANTANA  
CITY ADMINISTRATOR

**FROM:** Sean Whent  
Interim Chief of Police

**SUBJECT:** Wireless 911 Calls

**DATE:** November 14, 2013

City Administrator  
Approval

*Deanna J. Santana*

Date

12-5-13

**COUNCIL DISTRICT:** City-wide

## RECOMMENDATION

Staff recommends that Council accept this informational report on the capability of the City of Oakland (City) to receive and process wireless 911 phone calls through the Oakland Police Department (OPD) Call Center, one of the City's two Public Safety Answering Points (PSAPs).

This report was generated at the request of Council Member Dan Kalb.

## EXECUTIVE SUMMARY

As requested by the Public Safety Committee, the following information provides an overview of the current state of the OPD Call Center and its ability to receive wireless 911 calls generated within the City's jurisdiction.

While the OPD Call Center does receive some wireless calls that are transferred from the California Highway Patrol (CHP), thousands of other calls generated within the City's jurisdiction are currently being handled by the CHP.

The City is one of 12 PSAPs in California that are not currently taking wireless 911 calls (see *Attachment A*). In order to identify trends and analyze impact, staff has been closely following the wireless 911 call-taking issue since local agencies began taking these calls in 2007. As a result, staff has identified various impacts and complications that currently hinder the City from taking on this responsibility, and this report summarizes the history and staff findings.

## OUTCOME

Given the limitations of staffing and physical dispatch space, uncertain and changing nature of dispatching operations for the City, anticipated population growth and the imminent arrival of Next-Generation 911 services (text, video, and other data submission to 911), staff recommends

Item: \_\_\_\_\_  
Public Safety Committee  
December 17, 2013

that the City consider hiring an expert consultant to help the City fully vet all of the concerns raised in this memorandum.

While there is no mandate for City PSAPs to accept wireless 911 calls, should the City decide to move in this direction, the City should begin the planning process to prepare its PSAP to receive wireless 911 calls for service. It is clear that staffing levels must be increased to manage full receivership of wireless 911 calls; however, it is unknown whether or not the infrastructure can sustain the additional staff. The City must consider infrastructure needs and evaluate whether or not the center should be expanded or moved.

There are hundreds of cellular towers in the City, many of which are believed to be areas of the City that receive a large amount of calls for service. Having the ability to capture those 911 wireless calls directly would enhance the City's ability to disseminate information to patrol officers in a timelier manner thereby enhancing crime-fighting efforts. Staff believes a phased implementation approach is something the City could consider as it will enhance the City's ability to begin the training process and to conduct a thorough impact analysis. This approach would afford the City an opportunity to identify cellular towers within high crime areas and route calls received from those towers directly to the PSAP.

### BACKGROUND

Beginning in the 1980's, wireless 911 calls in the Bay Area were routed to the CHP PSAP in accordance with Public Utilities Code 2892(1) (see *Attachment B*). During the 1990's, cellular phone usage increased and 911 wireless calls overwhelmed the CHP's dispatch center. As a result, the CHP began to experience a large amount of dropped calls and callers frequently received busy signals when calling 911 from a wireless phone.

In 2007, it was determined that 42% of the 11.6 million wireless calls in the State of California were not being answered.\* To address the overload issue, the State of California developed a plan known as the Routing on Empirical Data (RED) project. The RED project recommended that calls be redistributed to local PSAPs.

The success of the RED Project relied on primary PSAPs across the State of California agreeing to accept wireless 911 calls generated within their jurisdictions. At that time, it was anticipated that local PSAPs would experience a 40% increase in call volume. As an incentive, the State of California provided funding for training and equipment upgrades to agencies agreeing to accept wireless calls. No funding was allocated for staffing.

During this transfer process, the CHP executed the deployment of wireless calls to local PSAPs in six phases. It has since received agreements from all but 12 agencies, with Oakland being the largest.

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\* 2011 CalNENA – CA Wireless e9-1-1 Routing on Empirical Data (RED)

According to CHP statistics shown in Table 1, should the City decide to receive all 911 wireless calls generated within the Oakland jurisdiction, the City should expect an increase of approximately 57% in call volume. However, options are available to the City to identify cell towers that clearly do not generate a public safety response from the City and reroute them to the appropriate agency. Furthermore, the City has the option of only receiving calls from towers in designated areas of the City as deemed beneficial to enhance public safety response.

Table 1. City of Oakland Wireless 911 Call Volume, October 1, 2012 – September 20, 2013

Tower Summary	Total Call Volume	Total Calls Transferred	% of Total Calls Transferred	Total Calls Transferred to OPD	% of Calls Transferred to OPD	Total Calls Transferred to OFD	% of Calls Transferred to OFD
ATTMO	137,613	36,227	27.35%	11,396	12.01%	4,674	6.14%
MetroPCS	97,514	44,662	41.07%	17,956	16.46%	12,324	13.06%
Nextel	375	152	48.68%	70	31.92%	51	42.2%
Omni	115	51	71.93%	4	3.51%	4	3.51%
Sprint	52,951	22,203	43.25%	8,123	17.17%	3,808	9.44%
T-Mobile	51,827	14,945	30.3%	5,655	15.31%	2,607	9.41%
Verizon	57,792	22,605	39.42%	7,221	16.3%	3,092	8.27%
<b>Total</b>	<b>398,187</b>	<b>140,845</b>	<b>35.37%</b>	<b>50,425</b>	<b>35.80%</b>	<b>26,560</b>	<b>18.85%</b>

OPD currently receives approximately 612,000 calls for service each year. Based on the CHP numbers provided, OPD could expect to receive approximately 348,000 additional calls for service annually (total call volume less total calls transferred to OPD, Table 1), a 57% increase in call volume. Given the potential for a 57% increase in call volume by taking wireless 911 calls, staff is certain that the increased call volume would have a negative effect on normal PSAP operations, and it would certainly impact current efforts to meet the State of California recommended 10-second call-taking answering speed. Challenges include physical dispatch space and staffing limitations, as detailed below.

#### Physical Dispatch Space

The primary City PSAP is located at the Municipal Services Center at 7101 Edgewater Drive. This PSAP was commissioned at its current location in January of 1999, in response to the urgent need to relocate the center out of the Police Administration Building following the 1989 Loma Prieta earthquake.

The current building is approximately 11,805 square feet and is constructed of masonry block walls and a steel building frame. The main features of the building include:

- Administrative offices;
- Men's and women's restrooms;
- Staff locker room;
- A single classroom;
- The primary PSAP call-taking area;
- The radio dispatch floor;
- A backup dispatch room for the Oakland Fire Department.

The center also has a small kitchen, workout area, a computer data center with uninterruptible power supply and an emergency generator.

The City also operates a secondary PSAP for OFD at the Emergency Operations Center. This center, operated by OFD, handles all incoming fire and medical emergency calls, including radio dispatch.

Each of the City's two PSAPs has the ability to transfer calls to the other in order to maintain continuity of operations in the event either center requires evacuation.

#### Space Limitations

The primary PSAP currently houses 20 call-taking positions. Normal operating conditions generally allow for up to two of these positions to be out of service for maintenance, leaving 18 positions, which are normally allocated as nine active positions, and nine standby positions to accommodate shift changes. Given current staffing levels, the center rarely operates nine active call-taking positions. On average, the staffing level in the call-taking section of the unit is six or seven.

Once the center reaches authorized staffing levels, operating nine to ten call-taking positions would be normal during peak call periods. Should the City ever return to its 1999 authorized staffing level of ninety-two dispatchers, staff believes the building will be at its capacity. In order to accommodate additional dispatchers, the 911 call center would need to be expanded, or it would need to be relocated.

#### Staffing

When the City's primary PSAP Center moved to Edgewater Drive in 1999, the authorized staffing level was 102 (see Table 2, page 5). Personnel included a Captain of Police, four Civilian Supervisors, four Sergeants of Police, ninety-two Police Communication Dispatchers (PCD's), and one Police Records Specialist.

Due to budgetary limitations in Fiscal Year 2003-2004, PCD staffing was reduced to 73 positions. Since that time, the City of Oakland has struggled to meet the State of California recommended 10-second call-taking answering speed.

Currently, the center is authorized one Lieutenant of Police, one Police Services Manager, four Civilian Supervisors, four Acting Sergeants of Police, seventy-five Dispatchers, and one Police Records Specialist.

### Staffing Limitations

As a result of decreased staffing levels, the OPD call center answering speed for 911 calls consistently falls short of the State's 10-second goal.

**Table 2. Authorized Staffing Levels (1999 and 2013) vs. Current Staffing at the OPD PSAP**

Classification Title	1999 Authorized Staffing Level	2013 Authorized Staffing Level	Current Staff	Difference
Captain of Police	1	0	0	-1
Lieutenant of Police	0	1	1	+1
Police Services Manager	0	1	1	+1
Supervisor (Civilian)	4	4	4	0
Sergeant of Police	4	4	3	-1
Dispatcher (PCD)	92	70	59	-33
Operator (PCO)	0	5	1	+5
Police Records Specialist	1	0	0	-1
<b>Total</b>	<b>102</b>	<b>85</b>	<b>68</b>	<b>-34</b>

It is important to note that while the Center is currently authorized to have 70 dispatchers, 5 of these approved positions were only recently added (in the 2013 budget). In addition, the center currently operates with 59 dispatchers (meaning there are 16 active vacancies in this classification).

In summary, the Center is currently operating with 33 fewer dispatchers than were authorized in 1999, a 36% cut.

Further, since 2008, the call center has been tasked with the additional duties of answering the OPD Internal Affairs Division "24-Hour" Complaint Hotline after hours, documenting misconduct allegations and service complaints.

Due to the severe shortfalls in staffing and added complaint hotline duties, current PSAP staff is regularly subjected to mandatory overtime during high call-volume periods in order to fill vacant positions due to scheduled leaves (vacation, sick, family leave) and injuries.

The abnormally high workload due to staffing shortages and increased call volumes, coupled with the high demand for professionally trained dispatchers across the region, has recently resulted in unusually high staff attrition rates. This has made recruitment and retention in this classification very challenging.

Staff is concerned that current call volumes will likely increase over the next five to ten years given factors including population growth and unfunded mandates such as Next-Generation 911 (text, video, and other data submission to 911). These factors are anticipated to impact the operations of the PSAP. Calls for service will increase and there will be a need for more physical operating space to accommodate additional dispatchers and call-taking equipment. Staff recommends that OPD and DIT collaborate to develop a plan to address the challenges that will be presented by Next-Generation 911.

### ANALYSIS

#### Mapping Application

In addition to the physical space limitations mentioned above, it is important to note that while the current PSAP telephone system is capable of accepting wireless 911 calls, OPD will need to invest in a mapping application in order to display wireless callers' locations.

This investment could be accomplished without any fiscal impact to City as the State of California has made funding available to all PSAPs in order to accommodate this need. Specifically, the State has allocated \$15,000 per funded position, and the City's primary PSAP has 20 funded positions for a total of \$300,000. Staff estimates the time involved to procure and install such a system would be approximately 24 weeks.

An agreement to accept wireless 911 calls would better position the City to request GIS funding from the State of California for procurement of a mapping system, an essential tool in processing wireless 911 calls.

#### Increase Staffing Levels

Prior to accepting any wireless 911 calls, staff recommends that the City should first ensure the OPD call center is fully staffed to the current authorized staffing level of 70 dispatchers and 5 operators in order to better understand if the PSAP is able to meet the current 10-second answering goal or if additional staffing at or near the 1999 levels is necessary.

Returning the PSAP to full staffing is an on-going challenge given the extremely high demand for trained dispatchers. Much like a police officer, the public safety dispatcher position is highly specialized and highly stressful, requiring unique and specific skills. Individuals who apply must come pre-qualified with a high level of computer operator background, undergo and pass a detailed background investigation, and then complete several months of training and testing.

Due to the extensive nature of the hiring process, staff recommends that the City consider posting the position of Dispatcher as an ongoing available position, and either offer continuous testing for Dispatchers, or allow OPD to conduct the testing several times throughout the year.

#### Organizational Impact

Accepting wireless 911 calls would have to be prioritized along with other significant organizational initiatives and transitions that are currently under way, such as:

- Ceasefire
- Reorganizing the Animal Shelter
- Geographic Policing Implementation
- NSA Benchmark Plan Compliance

Therefore, any initiatives that require further organizational change, within OPD, should be undertaken in a measured manner.

#### PUBLIC OUTREACH/INTEREST

This item did not require any additional public outreach other than the required posting on the City's website.

#### COORDINATION

The Budget Office and the City Attorney's Office were consulted in preparation of this report.

#### COST SUMMARY/IMPLICATIONS

There are no fiscal impacts associated with this informational report.

#### SUSTAINABLE OPPORTUNITIES

*Economic:* Acting on the recommendations of this report will generate jobs in the local economy.

*Environmental:* None to report.

*Social Equity:* None to report.

For questions concerning this report, please contact Police Services Manager Regina Harris-Gilyard at 510-777-8803.

Respectfully submitted,



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SEAN WHENT  
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Oakland Police Department

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**ATTACHMENTS**

Attachment A – Wireless Deployment Status

Attachment B – Public Utilities Code 2892 (c)

Attachment C – Salary Comparison



## ATTACHMENT A – Wireless Deployment Status

Handout #6



**Cal OES**  
GOVERNOR'S OFFICE  
OF EMERGENCY SERVICES

### Wireless 9-1-1 Deployment Status As of September 3, 2013

The following 12 Public Safety Answering Points (PSAPs) have not submitted a Letter of Agency to the CA 9-1-1 Division requesting to deploy wireless:

1. Atherton Police Department (officially withdrew original letter)
2. China Lake Emergency Communications Center USN
3. East Bay Regional Park District
4. Fort Hunter Liggett Fire Department
5. Los Banos Police Department
6. Oakland Police Department
7. Sierra County Sheriff
8. Travis Air Force Base
9. Cal State Poly Pomona Police Department
10. CSU Fresno Police Department
11. CSU Northridge Police Department
12. CSU San Jose Police Department

The following agency has submitted a Letter of Agency but not deployed:

1. Sacramento County Sheriff

The following agency has indicated they will deploy and have started deployments on a limited basis.

1. Sacramento City Police Department

## ATTACHMENT B - Public Utilities Code 2892 (c)

State of California  
Wireless E9-1-1 Project

The following is the California Law, Public Utilities Code 2892 (c) that allows Public Safety Answering Points to receive Wireless Enhanced 9-1-1 calls when certain requirements are met and an agreement is made between the PSAP, California Highway Patrol, and Department of General Services (DGS-TD). This law was enacted after Assembly Bill 1263 passed in January 2001.

2892. (a) As used in this section, the term "commercial mobile radio service" has the same meaning as the term "commercial mobile service," as defined in subsection (d) of Section 332 of Title 47 of the United States Code.
- (b) A provider of commercial mobile radio service shall provide access for end users of that service to the local emergency telephone systems described in the Warren-911-Emergency Assistance Act (Article 6 (commencing with Section 53100) of Chapter 1 of Part 1 of Division 2 of Title 5 of the Government Code). "911" shall be the primary access number for those emergency systems. A provider of commercial mobile radio service, in accordance with all applicable Federal Communication Commission orders, shall transmit all "911" calls from technologically compatible commercial mobile radio service communication devices without requiring user validation or any similar procedure. A provider of commercial mobile radio service may not charge any airtime, access, or similar usage charge for any "911" call placed from a commercial mobile radio service telecommunications device to a local emergency telephone system.
- (c) A "911" call from a commercial mobile radio service telecommunications device may be routed to a public safety answering point other than the Department of the California Highway Patrol only if the alternate routing meets all of the following requirements:
- (1) The "911" call originates from a location other than from a highway or county road under the jurisdiction of the Department of the California Highway Patrol.
  - (2) The alternate routing is economically and technologically feasible.
  - (3) The alternate routing will benefit public safety and reduce burdens on dispatchers for the Department of the California Highway Patrol.
  - (4) The Department of the California Highway Patrol, the Department of General Services, and the proposed alternate public safety answering point, in consultation with the wireless industry, providers of "911" selective routing service, and local law enforcement officials, determine that it is in the best interest of the public and will provide more effective emergency service to the public to route "911" calls that do not originate from a highway or county road under the jurisdiction of the Department of the California Highway Patrol to another public safety answering point.

Information may also be retrieved from <http://www.leginfo.ca.gov/calaw.html>. Select "California Law", then select "Public Utilities Code", then Search for "2892".

File: W E911 PUC 2892 (c).doc Date: August 16, 2002

### ATTACHMENT C – Salary Comparison

Agency	Hourly Pay	Employee Contribution PERS	PERS Retirement Formula	Shift Premium	Uniform Allowance	Employee Concessions	MBSD	Medical/Dental Yes/No	Meal Allowance	Source Of Information
Oakland PD	34.26	8%	2.7 @ 55 OR 2.5 @ 55	0.89 & 1.09	173.00	4% PERS	12 (EXCUSED DUE TO STAFFING)	YES	10.75	CITY OF OAKLAND MOU
Alameda PD	34.95	8.868%		0.07502 of salary per month	775.00	ZERO	ZERO	YES	19.00	CITY OF ALAMEDA MOU
Emeryville PD	33.34	1% to 6 % progressive ending at 7%			250.00	ZERO	ZERO	YES		CITY OF EMERYVILLE MOU
San Leandro PD	33.90	6% YR 1 4% YR 2 2% YR 3 0% REMAINING	2.5 @ 55 OR 2 @ 55	100.00 MO	500.00	ZERO	ZERO (MOU MBSD EXCUSED – VERIFICATION BY DISPATCH CENTER <sup>1</sup> PERSONNEL)	YES	N/A	CITY OF SAN LEANDRO MOU
Berkeley PD	43.28	ZERO	2.7 @ 55	7.5% SWING 10% GRAVE	1,400.00	ZERO	ZERO	YES	N/A	CITY OF BERKELEY MOU
Hayward PD	37.30 OR 40.91 (SR)	8%	2.5 @ 55	ZERO	250.00	ZERO	ZERO	YES	10.00	CITY OF HAYWARD MOU
Richmond PD	39.31	8%	2.7 @ 55	5 % SWING 7.5% GRAVE	600.00	ZERO	ZERO	YES	9.75	CITY OF RICHMOND MOU
Albany PD	34.80	8%	2.5 @ 55		1,000.00	ZERO	ZERO	YES		CITY OF ALBANY MOU