

# AGENDA REPORT

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

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

**SUBJECT:** Follow-Up to Grand Jury Report  
on Crime Lab Services

**DATE:** September 5, 2013

City Administrator  
Approval

*Deanna J. Santana*

Date

9/12/13

**COUNCIL DISTRICT:** City-Wide

## RECOMMENDATION

Staff recommends that City Council accept the follow-up response to the 2011-2012 Alameda County Grand Jury Report entitled "Crime Labs in Alameda County: Funding, Forensics and Consolidation."

## OUTCOME

This report constitutes the Oakland Police Department's (OPD) follow-up response to the three recommendations made by the Alameda County Grand Jury, with particular attention directed to Recommendations 2 and 3 which were assigned to OPD for response. Recommendation 2 calls on OPD to immediately clear its forensic case backlog; Recommendation 3 call on OPD to acquire a department-wide case management database that integrates OPD Criminalistics Division and county-wide criminal data bases. The report assesses various options available to meet the demand for service in an efficient manner and details impediments to efficiency.

## EXECUTIVE SUMMARY

The Alameda County Grand Jury published a report on June 25, 2012 entitled "Crime Labs in Alameda County: Funding, Forensics and Consolidation" reviewing the status of forensic science service delivery in Alameda County. The Grand Jury report contains three recommendations, two of which were specifically directed to OPD regarding crime laboratory operations under its control. This agenda report outlines the Department's follow-up response to its initial report of September 11, 2012 regarding the findings and recommendations in compliance with California Penal Code section 933 requirements as detailed in the following section.

## **BACKGROUND/LEGISLATIVE HISTORY**

During the term of 2011-2012, the Alameda County Grand Jury undertook a study of the forensic service delivery systems in the county. The study focused on two, full service crime laboratories in the county—the Alameda County Sheriff’s Department Crime Laboratory and the OPD’s Criminahstics Laboratory. The Grand Jury published a report on June 25, 2012, entitled “Crime Labs in Alameda County: Funding, Forensics and Consolidation,” hereafter referred to as “the Report.”

By California Penal Code section 933, the Department is required and did respond to the Presiding Judge of the Alameda County Superior Court within 90 days of the issuance of the Report on the findings and recommendations pertaining to matters under control of the governing body. The same California Code, Section 933.05 contains guidelines for responses requiring OPD to state one of the following in response to the Grand Jury’s findings:

- It agrees with the finding.
- It agrees partially with the finding and provides explanation.
- It disagrees wholly with the finding and provides explanation.

In addition, for each Grand Jury recommendation, OPD is required to report one of the following actions:

- The recommendation has been implemented, with a summary regarding the implemented action.
- The recommendation has not yet been implemented, but will be implemented in the future with an implementation timeframe.
- The recommendation requires further analysis, with an explanation and the scope of the parameters of an analysis or study, and a timeframe for the matter to be prepared for discussion, which shall not exceed six months from the date of publication of the Grand Jury Report.
- The recommendation will not be implemented because it is not warranted or is not reasonable, with an explanation.

As directed, this report is a follow-up to the report presented to the Public Safety Committee (PSC) on September 11, 2012 responding to the recommendations in the 2012 Grand Jury Report regarding Crime Laboratory Services. At that meeting, PSC members requested information on current laboratory staffing which is included in this report. They also requested information on three additional topics which is provided: (1) how fingerprints are prioritized, (2) the number of cases at the court level, and( 3) the current policy on examining videotape evidence.

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## ANALYSIS

This report is a follow-up report and represents OPD's analysis of the Grand Jury's findings and response to their recommendations.

### *Recommendation 12-1:*

"The Alameda County Chiefs of Police and Sheriff's Association must meet, confer and develop a written proposal to establish one consolidated Crime Lab in Alameda County."

RESPONSE: The Department respectfully disagrees with this recommendation.

The Grand Jury directed this recommendation to the Alameda County Chiefs of Police and Sheriff's Association (ALCO CSA). Last September, the association issued its response in a letter to the presiding judge of Alameda County Superior Court. In its letter the Association disagreed with the Grand Jury's view that they were the appropriate group to develop a written proposal to establish one consolidated Crime Lab in Alameda County. They cited costs that would be "...vast and prohibitive in the current financial environment" and stated that the decision whether to consolidate rested with the organizations who operate the laboratories in the county.

The Alameda County Sheriff's Office is moving its crime laboratory to a county owned location in East Oakland. The facility, which will also house the Coroner's Office, does not have the capacity for crime laboratory expansion.

As noted in the first report in response to the Grand Jury recommendations, the OPD Crime Laboratory provides forensic services in five forensic areas to OPD and the Alameda County District Attorney's Office; at no cost, in cases arising from crimes committed in the Oakland jurisdiction. The services areas include:

- Solid Dosage Drug Analysis
- Forensic Biology/DNA analysis
- Latent Print Analysis (including computer searching, comparison and development)
- Forensic Firearms Analysis
- Crime Scene Processing/Reconstruction, including officer involved shooting reconstruction incidents

It was noted in the report that maintaining these forensic services would provide significant benefit to OPD including:

- Unrestricted ability to determine the priority of its forensic service requests and to adjust those priorities as necessary to meet investigative objectives and urgent need;
- Alignment of laboratory work with investigative priorities and primary focus on violent crimes against persons;
- Access to core forensic services of greatest benefit to the Department's mission;
- Innovation and adoption of new technological advances and best practices;
- Strict control of the quality of the work product, thereby reducing risk to the City.

Oakland's crime rate is the highest in the state. The City represents approximately 26% of the population of the country, but accounts for 60% of the violent crime, including 75% of homicides.

Additionally, if staffing of the two laboratories were combined, it would still be insufficient to address Oakland's demands for service.

OPD considers it is in its best interests to retain and expand the forensic assets at its disposal and direct them exclusively at its own investigative priorities for the benefit of the citizens of the City.

Recommendation 12-2:

"OPD's Criminalistics Division must immediately clear its forensics-testing backlog."

RESPONSE: The Department agrees partially with this finding. There is no question that the demand for OPD Crime Lab services exceeds the casework capacity of laboratory staff in all areas except drug analysis. All units, regardless of backlog status, could provide enhanced service to OPD and the citizens of the city with additional resources, which will be required, as the sworn ranks increase and investigative capacity increases. For the reasons detailed below, we disagree that there is an immediate solution to this issue.

### ***Background***

The first report identified a significant gap between the demand for service and staff available to provide the services. That gap remains as reflected by backlog—which should be viewed as an indicator of the imbalance between service demand and capacity.

*Current Backlogs by Unit (as of 31 Dec 2012)*

	Homicides	Sexual Assault	Other Person Crimes	Property Crimes	Other	Total
All Sources	659	335	1382	415	154	2945
By Unit:						
Firearms	296	2	1135	3	64	1500
IBIS	4	0	24	0	15	43
Forensic Biology	118	301	70	6	11	506
Latent Prints	240	32	153	406	64	895
Crime Scenes	1	0	0	0	0	1

The Laboratory defines backlog as any request in its system that has not been completed. "Completed" means a report of analysis has been published. Requests that are in progress are counted as part of the backlog. There is no standardized definition of backlog in the forensic science industry. However, this approach is fairly common.

Many factors contribute to backlog, including:

- Rise in crime
- Increase in demand for service
- Inherent complexity of casework in Oakland
- Loss of trained staff due to retirement or employment elsewhere
- Closure of certain casework units due to loss of staff and subsequent rebuilding of the unit from scratch
- Chronic shortage of experienced examiners nationwide to fill vacancies in certain forensic fields
- Lengthy delays in recruiting and filling vacancies
- Personnel resources diverted from casework in order to train new staff to competency
- 12-20 furlough days per year per person for the last five years
- Performance of ancillary casework support duties by casework staff that could be done by less costly technical support staff
- Performance of drug and latent print evidence custodial responsibilities by casework staff that could be done by less costly laboratory support staff

The largest backlogs are in the Firearms and Latent Print Units. In the Firearms Unit, the increase was due to four coincident factors: (1) the loss, by the end of 2006, of all but one qualified firearms examiner, (2) the shortage of experienced examiners in the field generally to fill available vacancies, (3) the lengthy training period—typically two years—required to develop competent examiners, and (4) an increase in demand for this kind of service year on year as a result of the increase in gun-related violent crime in Oakland. To highlight the last point,

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the number of firearm requests received in 2012 (794) represents a 30% increase over the previous year and a doubling of submissions compared to 2010.

Backlogs in the Latent Print Unit are a lingering consequence of the closure of the Unit in 2006 to latent print comparison and computer searching casework due to the loss of all but one examiner. A remaining staff member who conducted all the latent print development casework retired in 2009. That position was frozen and ultimately cut to reduce the budget. It has not been restored. The Latent Print Unit reopened to comparison casework in 2008 when two examiners were hired. This is bare minimum number of staff required to keep the unit open. A third examiner was hired in 2010 by converting a criminalist vacancy in the Forensic Biology Unit to a Latent Print Examiner II position. The position lost to the Biology Unit has not been restored. Until recently, staffing in the Latent Print Unit (3 FTE) was lower than it was in 2006 (4 FTE) and even at the 2006 level, was inadequate to meet service demands.

It is also the case that while investigators are effective at submitting laboratory service requests, they rarely cancel these requests, even after a case is adjudicated. Thus, some portion of requests in our backlog may actually represent work that is no longer needed, and as such they over-inflating the backlog. Analytical staff does check on case status before starting an older case. However, identifying all requests that are no longer necessary so that they can be canceled is a time-consuming process requiring resources the laboratory does not have.

In the first report, staff identified a need for '13 additional laboratory positions at a cost of \$1,337,996. Staff was asked to evaluate options to improve service delivery without requiring additional staff in the order of magnitude expressed in the first report.

To this end, the laboratory director consulted with the directors of other crime laboratories in California who offer the same types of services and are accredited by the American Society of Crime Laboratory Directors Laboratory Accreditation Board International Program (ASCLD/LAB-International). The ASCLD/LAB-International program is based on International Standards Organization (ISO) 17025 standards—standards recognized worldwide as applicable to testing and calibration laboratories. Accreditation status is an important benchmark as accreditation standards impose strict conditions on the way laboratories must operate and the manner in which they must conduct, document, and report results.

### *Impediments to Efficiency*

As the table on page 4 reflects, the largest backlogs are in the firearms and latent prints areas. Unfortunately, these are areas which have not been the beneficiary of significant technological change aimed at speeding the work. The only significant technological changes in these two areas have served to slow the work, as a consequence of requiring database searching that has the potential to make associations between the fired cartridge case or latent print evidence to other evidence or individuals enrolled in these respective databases. Any associations made must then

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be confirmed by traditional manual methods by trained examiners. As such, these databases expand the work, without offering expediency.

Discussions with laboratory directors regarding latent prints did not identify any break-through change in process that would significantly impact efficiency. Latent Print work relies on exacting comparison of friction ridge minutiae under magnification between a latent print and a possible source. Firearms related examinations rely primarily on time consuming, side-by-side microscopic comparisons of striae imparted from the firearm to fired cartridge cases or bullets. The techniques used in both disciplines are virtually unchanged over the course of the last 60 years. Efficiency in both disciplines is a function of having a sufficient number of staff to do the work requested in a timely manner and appropriate workspaces to accommodate and facilitate that work.

In the Latent Print Unit, the chief impediments to efficiency are inadequate staffing to meet demand, location of the comparison and computer searching unit on a noisy floor adjacent to a frequently used classroom, and inadequate laboratory workspace for latent print development (processing) work. As an example, when certain latent print development processes are underway, the examiner must vacate the room due to the use of chemicals that emit noxious fumes, thus preventing other work from proceeding in this space. While an appropriate fuming chamber would make this process more efficient by allowing other work to continue in the space, the space itself, at 140 square feet, is not large enough to allow its use by more than one examiner at the same time. There is no other space in the laboratory available to house this function. As detailed in the section on Accommodation beginning on page 15, the laboratory does not have sufficient space for its various functions and current staffing.

In Firearms, the situation is similar and is primarily a consequence of not having more personnel to address the caseload and the additional space to house them. Consultation with other laboratories indicated that firearms casework through put expectations of 100-125 requests per examiner per year was comparable to others in the industry.

By contrast, technology advances have been significant in the area of Forensic Biology/DNA and the Laboratory has availed itself that technology. Our program is among the most advanced in the state, relying heavily on the use of robots to automate many processes previously carried out by hand, a laboratory information management system that streamlines the production of casework documentation, and expert systems that aide in DNA interpretation. While there is a backlog currently, with full staffing the laboratory is on course to meet the demand for service within the next two years and, barring a significant increase in service demand, should be able to stay current.

Drug Unit staffing is currently sufficient to meet the service demand. The Unit consistently carries no backlog and conducts more than 95% of its analyses within 24 hours of request. This is done to support the charging function which must be concluded within 48 hours. Drug

submissions declined in 2012 compared to 2011, however we expect this to be a temporary condition. It is expected that submissions will again rise as the number of police officers increases as a result of the planned academies.

Mandated furloughs have significantly reduced the time available for casework. Laboratory staff is not exempted from furloughs and mandatory business shutdown days which have varied from 12 to 20 days per staff per year depending on representation unit. By the end of FY 12-13, we estimate that furloughs will have accounted for approximately 1,700 lost work days—the equivalent of 4.65 work years—since they were instituted in FY 08-09.

*Hiring Status*

As reported in the first report, the Administration authorized the filling of existing vacancies in the Crime Laboratory. The tables below show staff and vacancies as of July 23, 2013 by classification and by unit.

Staffing by Classification (as of July 23, 2013)

Classification	Authorized	Vacancies	Affected Units
Forensic Technician	1	0	Grant funded
Latent Print Examiner III	1	1	New position approved Jan 2013
Latent Print Examiners II	3	0	1 under filled as LPE I
Criminalist I	3	2	1 Grant funded
Criminalist II	13	3	
Criminalist III	3	0	
Office Assistant II	1	0	
Crime Lab Manager	1	0	
<b>Total</b>	<b>26</b>	<b>6</b>	

Staffing by Unit (as of July 23, 2013)

Classification	Authorized	Vacancies	Positions Vacant
Forensic Biology/DNA Unit	12*	2	2 Criminalist I
Latent Print Unit	4	1	New LPE III position added January 2013
Drug Analysis Unit	4*	2	2 Criminalist II
Firearms Unit	4*	1	1 Criminalist II
Clerical Staff	1	0	
Management	1	0	
<b>Total</b>	<b>26</b>	<b>6</b>	

\*staffing includes a Criminalist III supervisor position conducting casework at not greater than 50%.



In January 2013, City Council authorized a new Latent Print III (supervisor) position for the Latent Print Unit. This addition increases staffing in the Latent Print Unit to four FTE and total staffing in the laboratory to twenty-six. We currently have six vacancies.

As of December 2012, the laboratory recruited and filled a grant funded Criminalist I position and a grant funded Forensic Technician position. Both are assigned to the Forensic Biology Unit. The Forensic Biology Unit is in the process of converting two Criminalist I positions to Criminalist II positions to enable flexible staffing. Once converted, the Unit expects to under fill these vacancies by means of the certified list resulting from the Criminalist I recruitment and thereby avoid another protracted recruitment process.

Recruitments for Criminalist II vacancies in the Drug and Firearms units were slated to open in early March, but were delayed until May in order to comply with various Department of Human Resource Management (DHRM) requirements. These included necessary revisions to the classification description which triggered requirements to notify the union representing the affected classification and to meet and confer, and to schedule the item with the Civil Service Board to approve the classification descriptions. We hope to have these positions filled by October 2013.

Recruitment for the Latent Print Examiner III position opened on July 15, 2013 and is in progress.

### *Outsourcing*

There are effectively two ways to meet the demand for service in the laboratory:

- 1) Artificially lower it by restricting the acceptance of requests to certain classes of cases—a form of rationing, or
- 2) Increase staffing to meet the demand.

For the reasons cited below, outsourcing is not a realistic alternative.

Forensic Science is a niche industry. The vast majority of forensic science practitioners are employed in government laboratories. Most of these labs have experienced backlogs and reductions in staffing during this recession and few have excess capacity. In addition, significant numbers of older staff members are retiring and laboratories face considerable challenges to replace these lost skills.

Private forensic laboratories, where they exist, tend to focus on volume testing such as DNA and controlled substances testing—areas in which OPD backlogs are manageable or nonexistent. Few offer services in firearms analysis or latent print analysis and those that do have very few staff performing the work. Hourly rates are typically in the \$150-\$250 per hour range. Some

laboratory services are billed at a cost per sample rate which can range from \$75 to \$1,000 depending of the analysis sought.

It should be mentioned that were vendor laboratories available, outsourcing would impose significant additional burdens and obligations on the laboratory. This work includes establishing contracts with vendor laboratories, selection and triaging of requests, decision making as to which evidence should be analyzed, transfer of the evidence to the vendor laboratory, chain of custody documentation, return and disposition of evidence, routing of reports, and review and approval of invoices for service. Testimony resulting from the outsourced work would be subject to additional, significant charges and it is unclear who—the City or the District Attorney—would pay for these charges.

As an accredited laboratory, the OPD Crime Lab would be required to place the work with a “competent” subcontractor who can perform the work to the same quality standards as OPD. Subcontractors who are accredited to the same standards as OPD may be presumed to be competent, but OPD would be responsible for maintaining documentation of their continued compliance with accreditation standards. If work is placed with contractors who are not accredited, competence cannot be presumed and OPD would be responsible for proving to its accreditor’s satisfaction that the subcontractor is indeed competent. OPD Laboratory would be responsible for documenting competence through such measures as external audits, review of internal audits, site visits, technical review by OPD laboratory staff of at least a sampling of the casework produced by the subcontractor, and blind proficiency testing.

In the area of DNA testing, in order to comply with quality assurance regulations established by the Federal Bureau of Investigation, DNA results produced by private subcontractors would have to undergo a thorough technical review by OPD Crime Lab DNA staff before those results could be uploaded to the DNA database. Other obligations attached to outsourced work under the FBI regulations, as well.

These requirements would greatly extend the responsibilities of OPD laboratory management and supervisory staff and divert existing resources away from casework conducted in-house. This would require additional personnel resources and funding. OPD believes it makes more sense to acquire the resources necessary to conduct the work in-house where it can ensure the quality, thereby reducing risk to the City.

#### *Staffing of OPD Crime Lab to Meet Service Demands*

Based on the demand for service in the last three years we previously identified the need for 13 additional staff as shown below. A Latent Print Examiner III position was authorized by City Council in January 2013 with funding beginning in FY 13-14. This was one of the 13 positions referenced in the first report and has now been removed from the list.

Unit	# FTE	Classification
Drug Analysis Unit	1	Police Property Specialist
Firearms Unit	2	Criminalist II Firearms Examiners
	2	Forensic Technicians
Latent Print Unit	2	Latent Print Examiner II
	2	Forensic Technicians
Forensic Biology Unit	1	Criminalist II (at end of current grant funding)
	1	Forensic Technician (at end of current grant funding)
Quality Assurance	1	Criminalist III/ Quality Assurance Program Supervisor

*Drug Analysis Unit*

The Drug Analysis Unit is responsible for the intake, storage, analysis and eventual destruction of all drug evidence collected by the department. More than 95% of casework is completed within 24 hours and there is no backlog. The Unit has 4 FTE Criminalist positions, two of which are currently vacant.

Drug Analysis Unit Activity

Description	2009	2010	2011	2012	% Change
Cases Received	5,623	4,424	2,864	2,208	-23%
Cases Analyzed	2,810	2,473	1,418	948	-33%
Exhibits Analyzed (Casework)	3,683	3,485	1,938	1,382	-29%
Exhibits Analyzed per Case	1.31	1.41	1.37	1.46	+6.6%

Submissions of evidence and requests for analysis have declined as a result of the reduced number of sworn personnel available for drug enforcement actions. The 4 PTEs represent an adequate number of staff to meet the caseload and maintain 24 hour turnaround even if demand increases significantly. A Police Property Specialist could assume the routine custodial duties associated with drug evidence receipt, storage, and destruction. This would maximize the number of scientific staff available for casework and accomplish the custodial functions in a less expensive manner than the current method that relies on criminalists. This individual could also determine the status of older, pending laboratory requests in other disciplines as described under Recommendation 12-3.

*Firearms Analysis Unit*

Four criminalist positions are allocated to the Firearms Unit. Three positions are filled. One of them is the unit supervisor who also conducts casework approximately half time. The significant increase in backlog is due to the loss of trained staff to retirements or employment elsewhere in 2005 and 2006. As a result, from 2007 to 2010, the unit had only one fully qualified examiner who was responsible for casework and the training of two trainees. Efforts to hire fully fledged firearms examiners were unsuccessful. As of 2011, the unit has three fully qualified examiners and one vacancy. The table below documents the impact additional examiners have had on the number of requests completed.

Firearms Unit Activity

Description	2009	2010	2011	2012	% Change
Received	434	400	609	794	+30%
Reported	66	149	230	230	No change

Since 2010, requests in this unit have nearly doubled. In the last year alone they were up 30%. The average number of requests received in 2010, 2011 and 2012 was 601 per year. The complexity of case requests processed by the unit is considerable. The number of exhibits examined per request in 2012 ranged from 1 to 166 separate items and totaled almost 3,000 individual items. Oakland cases tend to involve multiple semi-automatic weapons and high capacity magazines. The firearms examiners also provide trajectory determinations and other reconstructive services in officer involved shooting incidents. These examinations are normally quite time consuming and must take a number of variable into consideration for testing.

A fully qualified examiner can be expected to complete 100-125 requests per year depending on complexity. To keep pace with the current rate of submission would require five full time examiners, in addition to the unit supervisor. This can be achieved as follows:

- Fill existing 1 FTE Criminalist II vacancy
- Add 2 FTE Criminalist I positions

In addition, two FTE Forensic Technician positions would be needed to make full use of the firearms database known as the Integrated Ballistics Imaging System (IBIS). The Forensic Technicians would be responsible for test firing and imaging fired cartridge casings from the 1,200-1,500 seized weapons the department recovers annually and at a lower cost than criminalists. They would also assist criminalists in other casework support activities.

*Latent Print Unit*

Similar data were provided to the Public Safety Committee and City Council in a report entitled "Latent Print Unit Status" dated June 26, 2012. They have been updated for the entire year of 2012. The caseload for the three year period ending December 31, 2012 is provided below.

Latent Print Unit Activity

Requests Received	Requests Completed	Requests Cancelled
832	315	138

Based on the statistics for the last three years, the Unit receives approximately 277 requests for service annually and completed approximately 100 annually. These requests include latent print comparison, computer searching of latent prints in automated fingerprint identification systems (APIS), and latent print development. In addition, Unit staff also evaluates the quality of latent prints collected in over 900 crime incidents per year and serves as Department custodian for this type of evidence. Demand clearly exceeds current capacity.

The Unit currently has 3 FTE casework qualified Latent Print Examiners. The third examiner completed casework training requirements and advanced to independent Latent Print comparison and APIS casework status in January 2013. Additionally, as was mentioned previously, the City Council authorized a new Latent Print Examiner III (supervisor) position in January 2013, bringing the staffing to 4 authorized FTE. The Latent Print Examiner III will provide much needed technical and supervisory oversight of the Unit, case management, insure adherence to quality standards, and engage in casework.

To improve turnaround time, make better use of APIS, address the current backlog and prevent it from re-establishing itself, and achieve the kind of efficiency that results from having adequate staff to meet service demands, staff has identified the need for the following additional positions:

- 2 FTE Latent Print Examiner II
- 2 FTE Forensic Technicians

The Forensic Technicians would provide casework support to Latent Print Examiners by conducting latent print quality assessments, initial APIS searches on all APIS quality submissions, latent print processing casework, and evidence custodial assistance. This approach would maximize the amount of time Latent Print Examiners devote to comparison casework and would improve the unit's ability to provide investigative lead information based on identifications produced via APIS.

The Latent Print Examiner IPs would be responsible for latent print comparison casework, confirming APIS search results, and conducting verifications of identifications.

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*Forensic Biology Unit*

The Forensic Biology Unit is an example of what can be achieved by staffing to meet demand. Productivity in the Unit has increased significantly since 2008 for several reasons: 1) changes in typing technology, 2) the use of robots and liquid handlers, 3) hiring of a Forensic Technician who provides casework support to analysts, 4) deployment of analysts in teams with staggered rotations to make the most efficient use of the limited examination areas in the laboratory and full staffing. In 2011, when fully staffed, the nine analysts averaged 74 complex requests per year; seven full time analysts averaged 52 cases per analyst in 2012. The downturn was due to vacancies and time invested in beneficial technology validation and upgrades. The current backlog of 506 cases represents approximately 1 year's work for 6.5 analysts under current analytical conditions. When the vacancies are filled, staff expect to return to higher rates of throughput such as were seen in 2011.

**Forensic Biology Casework**

Description	2008	2009	2010	2011	2012	% Change
Received	432	1036	399	394	524	+33%
Completed	201	415	450	666	362	-46%

Eliminating the remaining backlog and sustaining success require that OPD

- Fill the two vacancies in the unit;
- Retain the grant funded FTE Criminalist position at the end of the grant period;
- Retain the grant funded Forensic Technician at the end of the grant period.

*Quality Assurance Unit*

The Laboratory has no dedicated quality assurance supervisor position. The laboratory manager currently serves in this role in addition to other duties. The size of the laboratory and the amount and complexity of casework have long justified a dedicated position. The new accreditation program based on ISO requirements to which the laboratory is transitioning increases the responsibilities that accrue to the quality assurance supervisor. The quality assurance supervisor should serve as the laboratory's independent internal investigator and overseer for all things quality related, providing unbiased factual data about the health of the quality assurance system to the manager.

The trend in the industry has long been to separate the quality assurance function from top laboratory management and Oakland is clearly out of step with this trend. A recent survey was conducted of 106 local crime laboratories throughout the country to determine how many laboratories relied on the laboratory manager to serve the role of quality assurance manager.

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Among the 79 respondents which included Oakland, only 11 laboratories (14%) operated in this manner.<sup>1</sup> A Criminalist III position should be added to serve as Quality Assurance Supervisor.

#### *Accommodation*

The additional staff identified is greater than can be accommodated in the current laboratory facilities. Additional space would be required. Space in the laboratory has been an issue for well over ten years and was the subject of significant external and internal studies.<sup>2,3,4,5,6</sup> It was noted by several statewide studies of crime laboratories in California and in the 2012 Grand Jury Report. These studies confirmed the need for more space for the OPD Crime Laboratory operation. That need has only increased in the intervening 10 years.

#### *Options in the Police Administration Building*

The laboratory currently occupies 5,434 square feet of space on the 6<sup>th</sup> floor and 985 square feet of space on the 5<sup>th</sup> floor of the Police Administration Building (PAB) for a total of 6,419 square feet. The lab spaces are on the North Wing of the L-shaped building. Expansion space is available on the 6<sup>th</sup> floor West Wing of the PAB that could add 7,150 square feet of space to the laboratory, effectively doubling the size of the laboratory. On the West Wing side of the building, the 6<sup>th</sup> floor is the top floor of the building and thus could more readily accommodate the installation of chemical hoods and other heating, ventilation, and air handling requirements. The cost to remodel this space was very roughly estimated in 2009 at \$5.65 million. The current cost is unknown at this time.

#### *Options Outside of the Police Administration Building*

An alternative is to build new or acquire and remodel space outside of the existing Police Administration Building (PAB). If this path is taken, it would be advisable to co-locate the Property and Evidence Unit within such a building to facilitate access to physical evidence and to provide staff the space needed. Likewise, it would be beneficial to provide space for the Police Evidence Technicians in such a facility. It is also typically advised that the space program anticipate and provide for growth over a 20 year interval. This option would ease the pressure on the existing space in the PAB and Eastmont Substation and provide more suitable resources to

<sup>1</sup> Survey of local crime laboratory directors in accredited laboratories conducted by a local crime laboratory director in Columbus, OH (personal communication).

<sup>2</sup> "Forensic Laboratories: Many Face Challenges Beyond Accreditation to assure the Highest Quality Services", California State Auditor, (1998), pages 19-23.

<sup>3</sup> "Under the Microscope: California Attorney General Bill Lockyer's Task Force Report on Forensic Science", (2003) pages 48 and 75.

<sup>4</sup> "An Examination of Forensic Science in California", The California Crime Laboratory Review Task Force, (2009), pages 68-72.

<sup>5</sup> City of Oakland, Police Department Forensic Sciences Laboratory Facility Needs Assessment (2000).

<sup>6</sup> Oakland Police Department Forensic Science Laboratory Space Program, by McLaren Wilson and Lawrie, Inc. (2002).

both laboratory, property and evidence technician personnel. Costs are unknown and depend on many undetermined variables.

*Space Needs Study Recommended*

Generally speaking, space recommendations for forensic laboratory personnel call for 700-1,000 square feet per technical staff, depending upon the multidisciplinary nature of the examiner's work and other variables.<sup>7</sup> In addition there are common spaces that every crime lab must have regardless of size such as reception space, evidence storage and accessioning, records storage, test firing facility, etc. Additional square footage must be factored in for circulation and required mechanical spaces. These factors can increase square footage by roughly one third.

Space in the current laboratory for 26 FTE corresponds to 247 square feet per staff—far below the 700-1,000 square feet norm for modern forensic laboratory construction. In addition, when office space is factored out, the actual laboratory examination space corresponds to roughly 3,000 square feet. It is no larger now than when the laboratory was constructed in the 1950's. In the intervening years, staff has grown from 4 FTE to 26 FTE.

The last needs study on this topic—now over 10 years old—documented numerous deficiencies in this facility and identified a need for significant increases in staff and space. We recommend a new needs study be undertaken by consultants familiar with forensic laboratory design requirements. The study should be based on an agreed service delivery model that identifies the scope of services offered, the number of staff needed to meet service demands, and the timeframe within which the client requires results. The model should also consider whether new forensic services are anticipated or should be added, such as computer forensics and mitochondrial DNA typing capability, as examples. It should also anticipate future growth and identify the expansion space needs such growth will require. Such a study will provide the information necessary to evaluate the suitability of potential properties where a new laboratory might be situated.

Cost of a needs study is estimated at \$150,000. Funding would need to be identified to cover the cost of the study.

*Recommendation 12-3:*

“OPD must immediately acquire a department-wide case management database that integrates OPD Criminalistics Division and county-wide criminal data bases.”

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<sup>7</sup>“Forensic Science Laboratories: Handbook for Facility Planning, Design, Construction, and Relocation”, U.S. Department of Commerce (2013) NISTIR 7941 p14.



RESPONSE: The Department agrees that a more streamlined, comprehensive method is needed to identify laboratory requests that are no longer required. However, success rests on developing and deploying an effective, integrated department-wide solution.

#### *Background Information*

As previously reported, the OPD Laboratory relies on a Laboratory Information Management System (LIMS)—a relational database that tracks receipt, assignment, completion and or cancellation of laboratory requests among other functionalities. The system is capable of producing statistical reports that are useful to laboratory management. The LIMS is a sophisticated system which includes functionalities that integrate quality assurance tracking, laboratory examination documentation, and streamline the analytical process in units where it has been fully deployed. LIMS is a stand-alone system and is not linked to databases outside of the laboratory environment. It was not designed to query or import data from other databases.

As was stated under the response to Recommendation 12-2, while the OPD Lab receives many requests from investigators, it is seldom informed of requests that are no longer needed or of cases that have been adjudicated. This lack of easily accessible information results in a constant accumulation of case requests. A real time mechanism for knowing when requests can be cancelled or when cases are adjudicated would be extremely useful, but is not currently available. There is no database at OPD or available through the county that can currently provide this information in a comprehensive manner. Each database has its own inherent limitations based on the fundamental design and objectives as will be described. Direct communication with the investigator is the only way to determine case status.

#### *Limitations of LRMS*

OPD has a Law Records Management System (LRMS) which was established circa 2004. LRMS contains information about all crime incidents that occur in the Oakland jurisdiction. It also contains disposition information based on 18 different disposition categories used by OPD. The investigator in the case is expected to provide disposition data on cases. One of the categories is "arrest and prosecution." However, this disposition does not necessarily mean that the case has been adjudicated, or that it has been adjudicated for all suspects in the case. As such the information it contains is incomplete and of little real value on its own. LRMS is not integrated with any Alameda County databases.

#### *Limitations of County Databases*

The report recommended accessing countywide databases to assist with laboratory case management. One of those databases is the Consolidated Records Information Management System (CRIMS). CRIMS may be useful in determining some information about the status of cases. However, as with LRMS, the data cannot be relied on alone for all cases without

confirmation of status by the investigator. This is particularly true for homicide, sexual assaults, and certain kidnapping charges and for cases where there may be multiple defendants. CRIMS contains data on incidents in which there has been an arrest. It is not helpful for those incidents in which no arrest has been made—a category of cases that gives rise to a significant number of laboratory requests. CRIMS also does not contain the information needed in cases involving juvenile defendants.

Based on communication with staff in the Alameda County Department of Information Technology, it may be possible to integrate CRIMS with OPD databases, including our LIMS, so that data may be pushed to these databases, but doing so would require further study and collaboration. The City Department of Information Technology is working with OPD on the replacement of its current system with one that would integrate existing databases. This enterprise has the potential of offering a mechanism whereby county database information could be integrated with OPD databases. Obviously, the scope of such undertakings and integrations goes well beyond the needs and management purview of the Laboratory.

The Laboratory has also worked with a consultant to develop a set of requirements that would serve as the basis for a Request For Proposal (RFP) for an expanded LIMS system. Integration with County databases can be added to this set of requirements.

*Utility of Case Status Reports Received from the District Attorney's Office*

As reported in our first response, the District Attorney's Office agreed to provide laboratory staff with reports on a bi-weekly basis, regarding case status of OPD cases including adjudications. Between July 2012 and March 2013, we received 14 such reports and had the opportunity to evaluate the utility of these reports.

The table below illustrates the format of the report. The majority of the cases listed on the report do not have information with regards to the case disposition. While some state "acquittal" or "convicted" as illustrated below, the majority of cases have no information in this column and it must be assumed the case is still in the course of litigation. Laboratory requests for these cases cannot be cancelled based on this report.

AGENCY	CASE #	DEFENDANT NAME		BIRTH D	EVENT #	CHARGE	
CA00109	04-243###	Smith	Timothy	82670	4251783	M273.6 PC	ACQUITTAL
CA00109	12-004###	Smith	Thomas	32170	2308935	M148(A){1} PC	ACQUITTAL
CA00109	12-031###	Smith	John	62770	2332050	M23152(A) VC	CONVICTED
CA00109	12-061###4	Smith	Frank	51070	2355001	M23152(A) RVC	CONVICTED

If there is more than one defendant in a case in which one defendant has been acquitted, convicted or certified convicted, pending laboratory requests may not be cancelled.

The fourteen reports contained 5,894 records related to OPD case. The following table illustrates the breakdown of cases, adjudications and requests in the laboratory.

Number of OPD cases (July 30, 2012 – February 9, 2013)	Number of Adjudicated cases*	Number of Lab Requests Involved
5,894	462	47

\*Not all adjudicated cases have laboratory requests for analyses.

Of the 47 laboratory requests associated with the set of adjudicated cases, many were either already completed or already cancelled. The remainder cannot be canceled based solely upon the reports because it is not clear whether there are other defendants or suspects associated with the case.

As with LRMS and CRIMS, this set of data has limitations and has not proven beneficial in unequivocally identifying a significant number of backlogged cases eligible for cancellation.

#### *Feasibility of Case-by-Case Status Checks*

Checking status of each case individually is time consuming, exceeds the clerical resources of 1 PTE Office Assistant II, and frequently fails to produce the information needed when this course is pursued. As a consequence, with the exception of requests in homicides, sexual assault, and certain kidnappings—crimes which have either no or very lengthy statutes of limitation—the laboratory has cancelled and returned to the investigative units pending cases that appear to have exceeded statutes of limitation. Units are advised that requests can be resubmitted in active cases if the laboratory work is still needed. This procedure has helped the laboratory identify those cases that are still active and places the onus for determining case status on the investigative units.

It would be useful to be advised routinely by the Property and Evidence Unit (PEU) at the time in time when they destroy evidence in a case. OPD Laboratory could then use this information to query and cancel any pending laboratory requests. An electronic solution that governs destruction notice production, distribution to interested parties, and follow up is recommended and should be incorporated in a Department- wide solution.

The Police Property Specialist position identified under Recommendation 12-2 would be assigned responsibilities for querying available databases, liaising with investigative units and processing evidence destruction notifications received from the PEU to determine the status of cases for which the laboratory is holding requests.

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RESPONSES TO ADDITIONAL QUESTIONS ASKED BY COUNCIL MEMBERS AT THE  
SEPTEMBER 11, 2012 PUBLIC SAFETY COMMITTEE MEETING

- 1) Response to the question regarding the number of pending latent print requests in cases at the court level.

Between January 1, 2010 and June 13, 2013, the LP Unit has received 51 requests from District Attorneys and OPD investigators to meet court dates. Of those, 39 requests have been completed and 7 requests have been cancelled. The remaining 5 cases have not been assigned.

- 2) Response to the question regarding how latent print requests are prioritized.

This information was provided in detail in a report to the Public Safety Committee on June 26, 2012 regarding the status of the Latent Print Unit. Prioritization of casework is extremely difficult under current conditions where the demand for service far exceeds the capacity of the unit, where extremely violent crimes continue to occur, and resulting priorities are in constant flux. Laboratory policy regarding prioritization of requests for service is as follows:

- Homicides receive the highest priority
- Other crimes against persons take precedence over crimes against property
- Crimes against property have the lowest priority

Other factors

- Cases with court dates are prioritized over those without
- Crimes representing an immediate threat to public safety in which the evidence is highly probative and investigafive leads are needed receive a very high priority
- Crimes for which a suspect is in custody who cannot be held without the analytical results are prioritized over routine requests.

- 3) Response to questions regarding OPD Video Analysis

The Criminalistics Laboratory has no involvement in the analysis of video evidence. The Oakland Police Department does not have a policy pertaining to video analysis and has never had a Video Analysis Unit (VAU). VAU utilizes the standards of the Scientific Working Group on Imaging Technology (SWGIT) and, on average, receives at least three to four requests a week for some type of video assistance. These requests come from Internal Affairs Division (IAD), Criminal Investigation Division (CID) and the Public Information Officer (PIO). The amount of time required to complete a request

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varies and ranges from 15 minutes to 80 hours, depending on the amount of video and what has to be done with it: Most requests from CID/IAD investigators take on average one hour of time. If a report is required, this takes a considerable amount of time. On average, a report for an officer-involved shooting can take 40-80 hours.

**PUBLIC OUTREACH/INTEREST**

No public outreach was necessary at this time.

**COORDINATION**

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

**COST SUMMARY/IMPLICATIONS**

Demand for services exceeds current staffing. To increase service and reduce turnaround times as described under additional staff is need. The total burdened cost of additional staff described above is shown below.

Classification	Annual Base Pay per FTE	Burdened Cost per FTE	# FTE	Total
Criminalist III	\$86,992.80	\$140,328.09	1	\$140,328.09
Latent Print Examiner II	\$71,588.04	\$115,478.67	2	\$230,957.34
Criminalist II	\$75,168.24	\$121,253.89	2	\$242,507.78
Criminalist I	\$63,589.50	\$102,576.22	1	\$102,576.22
Forensic Technician	\$51,441.00	\$82,979.48	5	\$414,897.40
Police Property Specialist	\$45,302.40	\$73,077.30	1	\$73,077.30
Total			12	\$1,204,344.13

\* Burdening rate of 61.31%

The cost of additional laboratory space is unknown at this time, would depend on many factors, and would require further study. The cost of a needs study to identify space needs and an estimate of construction costs associated with a new crime laboratory is estimated at \$150,000. Funding would need to be identified.

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The cost of an integrated department-wide database that would provide reliable, concise case status information and push that data to users automatically is unknown, but the concept deserves more study.

## RECOMMENDATIONS

1. Staff the laboratory to meet demand for service and ensure the quality of the work.
2. Provide additional laboratory space to accommodate increased staff in expanded or new facilities. Conduct a needs study to identify space needs and obtain an estimate of construction costs.
3. Provide funding and subject matter expertise to guide the creation of an integrated department-wide database that provides reliable case status information to stakeholders.

## SUSTAINABLE OPPORTUNITIES

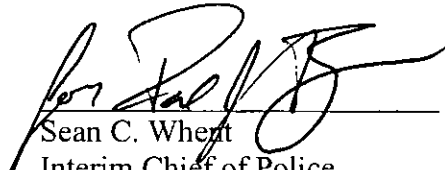
**Economic:** Effective and timely analysis of latent print evidence will assist the Police Department in conducting effective investigations and lead to the apprehension and prosecution of offenders, with resulting improvements in public safety. Great public safety will enhance Oakland's reputation as a place to live and to engage in business, affording the City an opportunity for further economic growth.

**Environmental:** There are no environmental opportunities identified with this report.

**Social Equity:** Apprehending and prosecuting offenders will improve public safety for the citizens of Oakland. Timely evidence analysis may also result in the elimination of falsely accused suspects thereby reducing potential liability to the City.

For questions regarding this report, please contact Mary M. Gibbons, Crime Laboratory Manager at (510) 238-2108.

Respectfully submitted,



Sean C. Whelan  
Interim Chief of Police  
Oakland Police Department

Prepared by:  
Mary M. Gibbons, Manager  
Criminalistics Division

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