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OFFICE OF THE CITY CLERK
OAKLAND

AGENDA REPORT

2012 AUG 30 AM 11:35

TO: DEANNA J. SANTANA
CITY ADMINISTRATOR

FROM: Howard A. Jordan
Chief of Police

SUBJECT: OPD 2012 DNA Backlog Reduction Program

DATE: August 5, 2012

City Administrator
Approval

Date

8/30/12

COUNCIL DISTRICT: City-Wide

RECOMMENDATION

Staff Recommends that the City Council Adopt a Resolution Authorizing the City Administrator To 1) Enter Into A Grant Administration Agreement With the United States Department of Justice, National Institute of Justice (USDOJ/NIJ) For Distribution of Fiscal Year 2012 Forensic Casework DNA Backlog Reduction Grant Program Funds; 2) Accept and Appropriate United Stated Department of Justice/National Institute of Justice Grant Funds in an Amount Not to Exceed Four Hundred and Eight Thousand Two Hundred and Ninety Five Dollars (\$408,295.00) For Implementation of The Fiscal Year 2012 Forensic Casework DNA Backlog Reduction Grant Program In the Oakland Police Department for the Period of October 1, 2012 through March 31, 2014; 3) Enter into Contracts for the Purchase of DNA Typing Supplies with the Following Vendors: Life Technologies in the amount of Fifteen Thousand Six Hundred Dollars (\$15,600.00); VWR/Fisher in the Amount of Two Thousand Three Hundred Seventy Dollars (\$2,370.00). Qiagen/Aurora in the Amount of Twelve Thousand Seven Hundred Dollars (\$12,700.00), And Promega in the Amount of Eight Thousand Seven Hundred Dollars (\$8,700.00); 4) Waive the Advertising and Competitive Bidding Requirements for the Purchases of DNA Typing Supplies in the Proposed Contracts with Life Technologies, VWR/Fisher, Qiagen/Aurora and Promega.

EXECUTIVE SUMMARY

Staff has prepared a report and resolution authorizing the City Administrator, on behalf of the City of Oakland, to accept and appropriate grant funds in an amount not to exceed \$408,295 from the United States Department of Justice, National Institute of Justice (USDOJ/NIJ) for Implementation of the Fiscal Year 2012 Forensic Casework DNA Backlog Reduction Program. The proposed program period is October 1, 2012 through March 30, 2014. The funds will be used to offset costs to the Police Department's Criminalistics Division, Forensic Biology Unit, relative to increased capabilities in analyzing biological evidence associated with criminal cases.

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With FY 2012 DNA Backlog Reduction grant funds, the Oakland Police Department Criminalistics Laboratory expects to:

- 1) Decrease the turnaround time to under 100 days for analyzing biological evidence cases with the continued employment of 1.0 FTE Criminalist and 1.0 FTE Forensic DNA Technician.
- 2) Decrease the case backlog by at least 170 cases through in-house testing using overtime, supplies, and maintenance contracts for key instrumentation during the award period, and grant funded Criminalist and Forensic Technician.

OUTCOME

The ultimate goal of the Oakland Police Department's Criminalistics Laboratory's request for FY 2012 DNA Backlog Reduction grant funds is to continue to decrease the Biology Unit's turnaround time on all non-msh DNA analyses; ideally to less than 100 business days. 170 backlogged case requests will be entered into the DNA Backlog 2012 program. It is anticipated that 65% of the sexual assault cases and 90% of the homicide and property crime cases in the program will have biological material that can be subjected to DNA typing. The eligible DNA profiles will be entered into Combined DNA Index System (CODIS). Based upon past experience with DNA profiles obtained from cases without suspects, we anticipate a 45% 'Hit-Rate'. The outcome of such cross referenced searches can lead to the arrest and prosecution of violent individuals.

BACKGROUND/LEGISLATIVE HISTORY

The Criminalists have reduced their 'manual hands-on manipulation time' from approximately 40 hours per average sexual assault case to approximately 20 hours. A portion of this time is spent evaluating the biological material at the start of the case examination, interpreting the data and report writing at the end of the analyses. The entire Biology Unit, with the assistance of the Forensic Technician and implementation of automation using robots, was able to increase productivity by 48% (666 completed case requests) in 2011 as compared to 2010 (450 completed case requests). It is anticipated that an additional increase in completed case requests and decreased turnaround time will also be realized as the Technician and the POD system was in place for only a portion of 2011. The expected increase in analyst completion of cases by the end of the award period is 15% with the use of the robotic processes, software development methodology that ensures proper engineering of critical processes in parallel to and integrated with software development design POD and Laboratory Information Management System ("LIMS") and development and with the continued assistance of the Forensic Technician.

Through enactment of the proposed FY 2012 DNA Backlog Grant initiative, the Laboratory will analyze one hundred seventy (170) of the backlogged case requests. This will be accomplished by:

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Goal #1: *Reducing the forensic DNA case backlog through Criminalist overtime and purchasing supplies (100 backlogged cases).* The Biology Unit was able to complete the analyses on 215 cases in approximately 100 business days from the receipt of the request. The ultimate goal of the Oakland Police Department's Criminalistics Laboratory's request for FY 2012 DNA Backlog Reduction grant funds is to continue to decrease the Biology Unit's turnaround time on all non-msh DNA analyses; ideally to less than 100 business days.

Objective #1: Fund overtime and purchase supplies for Criminalists to analyze 170 backlogged cases, including case evaluation, biological evidence examination and screening, DNA typing, technical review, and data entry into CODIS will be conducted (in part) on an overtime basis. The overtime will be funded through this grant for the criminalists and technical lead. It will decrease the turnaround time to 100 days or less by maintaining the previously grant-funded purchase of robotic instrumentation (automation), use of the POD system (Six-Sigma), LIMS, and the new streamlined automation protocols, POD, and LIMS, which have been fully implemented with great success, as the grant also funds maintenance service contracts for this equipment.

Goal #2: *Increase capacity in the forensic casework laboratory by Retaining Biology Unit staff by continuing to fund salaries and benefits of 1.0 FTE Criminalist and 1.0 FTE Forensic DNA Technician.* This Criminalist will conduct analyses on 170 backlogged cases during the life of this grant.

Objective #2a: Continue the employment of Criminalist to conduct casework

Objective #2b: Continue the employment of Forensic DNA Technician to assist the Criminalists in non-interpretive casework processes

Objective #2c: Purchase laboratory kits, reagents and supplies to analyze 100 backlog cases

Waiver of the advertising and bidding process

It is in the best interest of the City to waive the advertising and bidding process because purchasing DNA supplies from vendors other than those who manufacture DNA kits currently used by the Crime Lab would not be effective due to incompatibility. The supplies needed for the evaluation of the physical evidence in these cases will be funded through this grant, which includes items for evidence processing (pipette tips, tubes, gloves, masks, bench pads, scalpels etc.), microscopic examination supplies (slides and coverslips), DNA extraction kits (QIAGEN), quantitation kits (Promega), Identifiler Plus DNA Typing Kits (Life Technologies) and the corresponding instrument supplies (Pipette Tips for Liquid handler, gloves, scalpels, masks; VWR/Fisher). These reagents and supplies from these particular vendors have undergone rigorous validation studies. No vendor substitutions are acceptable.

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Goals #3: *Providing the required continuing education for each Criminalist and Technician.*

The Forensic Biology Unit scientific staff's continuing education is needed to comply with the Laboratory's ASCLD-LAB accreditation, individual scientist's certification, NDIS requirements for CODIS data entry, and the FBI DNA Quality Assurance Standards' mandatory educational requirements. The Laboratory does not have an independent budget for training. It is anticipated that case completion time would improve to less than 100 days on average upon the attendance of conferences, implementation of the new technologies learned, and training of new Forensic Biology Unit staff

Objective 3: Fund Criminalists' and Forensic Technician's travel to conferences and training opportunities. By the end of the award period, it is expected that all eleven Criminalists and the Forensic DNA Technician will have fulfilled their required continuing education through this grant. This will allow the staff to maintain the ability to enter DNA profiles obtained from the biological evidence into CODIS by meeting the continuing education requirements of FBI DNA Quality Assurance Society (QAS), American Society Crime Lab Directors/Laboratory Accreditation Board (ASCLD/LAB), and the American Board of Criminalistics. Upon attendance of the conferences and training events it is anticipated that case request completion time will improve to less than 100 days, on average, as a result of the new technologies learned.

ANALYSIS

The advent of DNA technology has revolutionized law enforcement's ability to analyze biological evidence at a genetic level, in particular, semen evidence encountered in sexual assaults. Coinciding with this revolution in genetic analysis is the utilization of computer-based DNA databases.

The Forensic Biology Unit case completion time for the entire year 2011 was 385 business days on average; based on the date of the request from the investigator to the publication of the report. This is higher than previous years due to the completion of 51 very old cases in which the Criminalist was awaiting additional information from the requestor. Post implementation of the POD system, the turnaround time was reduced to 278 days on average.

The ultimate goal of the Oakland Police Department's Criminalistics Laboratory's 2012 DNA Backlog Reduction grant funds is to continue to decrease the Biology Unit's turnaround time on all non-rush DNA analyses; ideally to less than 100 business days. A grant-funded Forensic Technician (appointed under the Backlog FY11 Grant) will continue to operate the automated DNA processes, increasing the number and capacity of available Criminalists that will be devoted to data interpretation and case completion. The continued analyses by the grant funded Criminalist and Forensic Technician will increase the Unit's capacity to complete case requests in a timely fashion. The expected increase in criminalists' completion of cases by the end of the award period is 15% with the use of the robotic processes, POD system, LIMS and with the continued assistance of the Forensic Technician.

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This decrease in turnaround time and the increase in the number of DNA samples analyzed will enable the Lab to increase the number of cases completed annually by approximately fifteen percent. The DNA profiles obtained from probative evidence will be entered into CODIS. Based upon past experience with DNA profiles obtained from cases without suspects, we anticipate a 45% 'Hit-Rate'¹.

PUBLIC OUTREACH/INTEREST

The DNA analysis of the biological evidence associated with unsolved sexual assault and homicide cases and subsequent searches of these DNA profiles against the CODIS and against other case profiles can determine if any matches exist. The outcome of such cross referenced searches can lead to the arrest and prosecution of violent individuals. Additionally, DNA typing may lead to the elimination of a particular individual as a crime suspect. The ability of the laboratory to conduct the DNA analyses as a routine matter, with a shorter turn-around time, will ultimately lead to solving crimes.

COORDINATION

This report was prepared in coordination with the Fiscal Services Division Manager and the OPD Criminalist III staff person, who is the project manager of this grant, as well as the Budget Office and the City Attorney's Office.

COST SUMMARY/IMPLICATIONS

This should include

1.	AMOUNT OF RECOMMENDATION/COST OF PROJECT:	
	Project Delivery	408,295.00
	Total Project Costs	408,295.00
2.	COST ELEMENTS OF AGREEMENT/CONTRACT:	
	Personnel	\$221,354.38
	Fringe Benefits	\$121,664.72
	Travel	\$5,331.00
	Supplies	\$39,370.00
	Consultants	\$16,400.00

¹ "Hit Rate" is defined as that portion of all cases examined in which at least one suspect is identified. Multiple suspects may be identified in some portion of the cases examined. In "named" cases, investigators frequently request multiple suspects be examined.

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Other	\$4,175.00
Total Cost Elements of Agreement	\$408,295.10

3. SOURCE OF FUNDING: Approval of the proposed resolution will authorize the City Administrator to accept and appropriate grant funds from the U.S. Department of Justice, National Institute of Justice, grant program to the Police Department Criminalistics Division for the Fiscal Year 2012 Forensic Casework DNA Backlog Reduction Program in the amount of \$408,295.

4. FISCAL IMPACT: \$408,295.00

Funding will be appropriated to the Federal Grant Fund (2112); Criminalistics Division Org. (102610); Criminalistics Division Program (PS05), in a Project Account to be determined. There are no matching funds requirements associated with the acceptance of this grant, which will be managed by the Criminalistics Division manager.

The proposed expense allocations are as follows:

<u>Budget Category</u>	<u>Amount</u>
A. Personnel	
Criminalist Personnel and Forensic Technician Personnel (18 mo.)	\$191,588.25
Biology Unit Staff Overtime For analyses on backlogged cases	22,912.50
Grant Coordinator	6,853.63
A. Personnel Total	\$221,354.38
B. Fringe Benefits Total	\$121,664.72
<i>Total Personnel and Fringe</i>	<i>\$343,019.10</i>
C. Criminalistics Division Staff Travel/Training	\$5,331.00
D. DNA Typing Supplies	\$39,370.00
E. Maintenance on equipment (Liquid Handler, DNA Extraction Robots EZ1 XL (2), Liquid Handler Qiagility (2))	\$16,400.00
F. Staff Registration for Workshops	\$4,175.00
Total Direct Costs	\$408,295.10

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G. Indirect Costs	\$0.00
TOTAL PROJECT COSTS	\$408,295.10

PAST PERFORMANCE, EVALUATION AND FOLLOW-UP

Forensic Biology casework capacity and case completion turnaround times at the Oakland Police Department's Criminalistics Laboratory have improved significantly over the last year as a result of instrumentation purchased through grant funds received from the National Institute of Justice's DNA Backlog Reduction and Capacity grant programs.

Forensic Biology Unit staffing has increased to a level that is appropriate to analyze the physical evidence in association with the crimes committed in Oakland. The implementation of electronic sample documentation and the automated DNA processes as a result of the acquisition of DNA extraction robots, DNA sample manipulation robots, real-time PCR for human DNA quantitation, and higher capacity capillary electrophoresis instruments and computer software to aid the Criminalists in data interpretation have resulted in an increase in the number of biological samples analyzed. Additionally, information from laboratories utilizing the Six-Sigma approach to case work (funded by NIJ) was utilized to formulate a POD system in the Forensic Biology Unit (starting October 1, 2011). The case productivity increased by 40% from year 2010 to 2011. It is clear that these processes significantly increase our capabilities.

SUSTAINABLE OPPORTUNITIES

Economic: Whenever possible, supplies and equipment will be purchased locally. Enhancing the Lab's ability to more efficiently and effectively process DNA evidence will significantly help to secure prosecutions, thereby removing predators from the streets creating an environment where businesses can thrive and customers feel safe to shop.

Environmental: There are no environmental issues associated with this report.

Social Equity: Provisions for continuing education and supplies funded by this grant will enhance the Department's ability to analyze biological evidence in sexual assault cases in a more timely fashion.

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For questions regarding this report, please contact JENNIFER MIHALOVICH, CRIMINALIST III at (510) 238-3386.

Respectfully submitted,



for

Howard A. Jordan
Chief of Police
Oakland Police Department

Prepared by:
Dyana Curreri-Ermatinger
Grants Coordinator
OPD, Fiscal Services Division

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FILED
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OAKLAND

OAKLAND CITY COUNCIL

Armadis Soto
City Attorney

RESOLUTION No. _____ C.M.S.
2012 AUG 30 AM 11:36
Introduced by Councilmember _____

RESOLUTION AUTHORIZING THE CITY ADMINISTRATOR TO:

- 1) ENTER INTO A GRANT ADMINISTRATION AGREEMENT WITH THE U.S. DEPARTMENT OF JUSTICE, NATIONAL INSTITUTE OF JUSTICE (USDOJ/NIJ) FOR DISTRIBUTION OF FISCAL YEAR 2012 FORENSIC CASEWORK DNA BACKLOG REDUCTION GRANT PROGRAM FUNDS;
- 2) ACCEPT AND APPROPRIATE USDOJ/NIJ GRANT FUNDS IN AN AMOUNT NOT TO EXCEED FOUR HUNDRED AND EIGHT THOUSAND TWO HUNDRED AND NINETY FIVE DOLLARS (\$408,295.00) FOR IMPLEMENTATION OF THE FISCAL YEAR 2012 FORENSIC CASEWORK DNA BACKLOG REDUCTION GRANT PROGRAM IN THE POLICE DEPARTMENT FOR THE PERIOD OF OCTOBER 1, 2012 THOUGH MARCH 31, 2014;
- 3) ENTER INTO CONTRACTS FOR THE PURCHASE OF DNA TYPING SUPPLIES WITH THE FOLLOWING VENDORS: LIFE TECHNOLOGIES IN THE AMOUNT OF FIFTEEN THOUSAND SIX HUNDRED DOLLARS (\$15,600.00); VWR/FISHER IN THE AMOUNT OF TWO THOUSAND THREE HUNDRED SEVENTY DOLLARS (\$2,370.00), QIAGEN/AURORA IN THE AMOUNT OF TWELVE THOUSAND SEVEN HUNDRED DOLLARS (\$12,700.00), AND PROMEGA IN THE AMOUNT OF EIGHT THOUSAND SEVEN HUNDRED DOLLARS (\$8,700.00);
- 4) WAIVE THE ADVERTISING AND COMPETITIVE BIDDING REQUIREMENTS FOR THE PURCHASES OF DNA TYPING SUPPLIES IN THE PROPOSED CONTRACTS WITH LIFE TECHNOLOGIES, VWR/FISHER, QIAGEN/AURORA AND PROMEGA.

WHEREAS, grant funds in an amount of \$408,295.00 were awarded by the U.S. Department of Justice, National Institute of Justice (USDOJ/NIJ) to support the Police Department's (OPD) fiscal year 2012 implementation of the Forensic Casework DNA Backlog Reduction Program; and

WHEREAS, the Forensic Casework DNA Backlog Reduction Program grant award must be accepted by September 16, 2012; and

WHEREAS, the Forensic Casework DNA Backlog Reduction Program was created to assist criminalistic laboratories in reducing the number of cases in their backlog in which DNA analyses may be conducted on biological evidence; and

WHEREAS, the Forensic Casework DNA Backlog Reduction Program grant funds will be used to offset costs to the OPD's Criminalistic's Division, Forensic Biology unit; and

WHEREAS, the funds will be allocated to continue funding the positions of one Criminalist and one Forensic Technician, to pay staff overtime on backlogged cases, to purchase laboratory validated DNA typing supplies in the amounts identified in the attached report, and to provide continuing maintenance contracts on equipment essential to the work of OPD's Forensic Biology Unit; and

WHEREAS, the grant term for the proposed initiative is October 1, 2012 through March 31, 2014; and

WHEREAS, the City Council previously authorized acceptance of similar grant funds by Resolution No. 83672 C.M.S. dated December 15, 2011, Resolution No. 83030 C.M.S., dated October 19, 2010, Resolution No. 82291 C.M.S., dated September 22, 2009, Resolution No. 81624 C.M.S., dated October 21, 2008, Resolution No. 80869 C.M.S., dated October 2, 2007, Resolution No. 80129 C.M.S., dated September 19, 2006, Resolution No. 79534 C.M.S., dated October 18, 2005, and Resolution No. 78909 C.M.S., dated November 16, 2004; and

WHEREAS, Oakland Municipal Code ("OMC") Section 2.04.050.1.5 permits Council to waive the advertising and competitive bidding requirements upon a finding that it is in the best interests of the City to do so; and

WHEREAS, staff recommends that it is in the best interests of the City to waive the advertising and bidding processes because purchasing DNA supplies from vendors other than those who manufacture DNA kits currently used by the Crime Lab would not be effective due to incompatibility; now therefore be it

RESOLVED, That the City Council authorizes the City Administrator or her designee to enter into a grant administration agreement with the U.S. Department of Justice, National Institute of Justice (USDOJ/NIJ) for distribution of Fiscal Year 2012 Forensic Casework DNA Backlog Reduction Grant Program funds to be used to offset costs to OPD's Criminalistic's Division, Forensic Biology unit; and be it

FURTHER RESOLVED, That the City Council authorizes the City Administrator or her designee to accept and appropriate USDOJ/NIJ grant funds in an amount not to exceed \$408,295.00 for implementation of the fiscal year 2012 Forensic Casework Backlog reduction grant program for the period of October 1, 2012 through March 31, 2014; and be it

FURTHER RESOLVED, That said grant funds shall be maintained in the Federal Grant Fund (2112), Criminalistics Division Org. (102610), Criminalistics Division Program (PS05), in a Project Number to be established; and be it

FURTHER RESOLVED, That said grant funds shall be used to continue to fully fund one (1) Criminalist Position, one (1) Forensic Technician position to conduct examination of biological material during the term of the grant, October 1, 2012 – March 31, 2014; and be it

FURTHER RESOLVED, That said grant funds shall be used to pay overtime and required training to Forensic Biology Unit staff for analysis on backlogged cases during the grant period, October 1, 2012 – March 31, 2014; and be it

FURTHER RESOLVED, That said grant funds shall be used to purchase laboratory validated DNA typing supplies utilized in the examination of biological material during the terms of the grant period, October 1, 2012 – March 31, 2014, and be it

FURTHER RESOLVED, That said grant funds shall be used to continue funding existing maintenance contracts for upkeep of equipment essential to the work of OPD's Forensic Biology Unit during the terms of the grant period, October 1, 2012 – March 31, 2014; and be it

FURTHER RESOLVED, That the City Administrator is authorized to enter into contracts for the purchase of laboratory validated DNA typing supplies from Life Technologies in the amount of \$15,600.00, from VWR/Fisher in the amount of \$2,370.00, from Qiagen/Aurora in the amount of \$12,700.00, and from Promega in the amount of \$8,700.00; and be it

FURTHER RESOLVED, That the City Council finds that pursuant to OMC Section 2.04.050.1.5, for the reasons stated above and in the City Administrator's

report accompanying this resolution, that it is in the best interests of the City to waive the advertising and competitive bidding requirements for the products to be purchased under the proposed contracts with Life Technologies, VWR/Fisher, Qiagen/Aurora, and Promega, and so waives the requirements; and be it

FURTHER RESOLVED, That the City Administrator or her designee is hereby authorized to complete all required negotiations, certifications, assurances and documentation required to accept, modify, extend and/or amend the grant award.

FURTHER RESOLVED, That the City Attorney shall review and approve any agreement(s) authorized by this resolution as to form and legality and copies of said agreement(s) shall be filed with the Office of the City Clerk.

IN COUNCIL, OAKLAND, CALIFORNIA, _____

PASSED BY THE FOLLOWING VOTE:

AYES - BROOKS, BRUNNER, DE LA FUENTE, KAPLAN, KERNIGHAN, NADEL, SCHAAF and PRESIDENT REID

NOES -

ABSENT -

ABSTENTION -

ATTEST: _____
LaTonda Simmons
City Clerk and Clerk of the Council
of the City of Oakland, California