



COMMONWEALTH of VIRGINIA

FORENSIC SCIENCE BOARD CAROLINE D. JURAN, CHAIR

October 25, 2012

The Honorable Lacey E. Putney
Chair, House Committee on Appropriations
P.O. Box 127
Bedford, Virginia 24523

The Honorable Walter A. Stosch
Chair, Senate Committee on Finance
Innsbrook Centre
4551 Cox Road, Suite 110
Glen Allen, Virginia 23060-6740

The Honorable Robert B. Bell
Chair, Virginia State Crime Commission
2309 Finch Court
Charlottesville, Virginia 22911

Re: Annual Forensic Science Board Report

Dear Delegates Putney and Bell and Senator Stosch:

Pursuant to the provisions of Subsection B of § 9.1-1110 of the *Code of Virginia*, the Forensic Science Board shall, by November 1 of each year, review and make recommendations concerning the following matters:

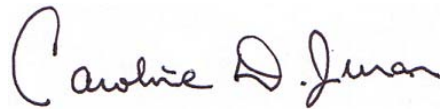
1. New major programs and plans for activities of the Department of Forensic Science and elimination of programs no longer needed;
2. Policy and priorities in response to agency need;
3. General fiscal year operational budget and any major changes in appropriated funds;
4. Actions to foster and promote coordination and cooperation between the Department of Forensic Science and the user programs which are served;
5. Rules and Regulations necessary to carry out the purpose and intent of this chapter;
and

October 25, 2012
Annual Forensic Science Board Report

6. Any recommendations submitted to the Board or the Director by the Scientific Advisory Committee.

The 2012 Report of the Forensic Science Board concerning these matters is attached. Please do not hesitate to contact me at (804) 367-4578 if you have any questions or would like additional information.

Sincerely,

A handwritten signature in black ink that reads "Caroline D. Juran". The signature is written in a cursive style with a large initial "C".

Caroline D. Juran
Executive Director, Virginia Board of Pharmacy
Chair, Forensic Science Board

Enclosure

cc: The Honorable Marla G. Decker
Members, Forensic Science Board
Peter M. Marone
Division of Legislative Automated Systems

cdj/gdj

**FORENSIC SCIENCE BOARD
2012 ANNUAL REPORT
Pursuant to § 9.1-1110.B of the Code of Virginia**

1. New major programs and plans for the activities of the Department of Forensic Science (“DFS” or “Department”) and the elimination of programs no longer needed

Review of major programs and plans; recommendations, if any:

POST-CONVICTION DNA TESTING PROGRAM AND NOTIFICATION PROJECT

Post-Conviction DNA Testing Program

The project initiated in 2005 at the direction of former Governor Mark Warner to perform DNA testing of biological evidence identified in certain archived DFS serology case files dating from 1973 through 1988 continued in calendar year 2012. Prior Annual Reports of the Forensic Science Board (“Board” or “FSB”) have detailed the history and progress of this important and unprecedented project. This summary is intended, once again, to reflect developments over the past year pertaining to the Post-Conviction DNA Testing Program and the related effort to notify persons who were convicted of crimes in the old cases that have qualified for DNA testing.

The DNA testing of old case evidence in this Program has been supported since 2008 through a federal grant of more than \$ 4.5 million from the National Institute of Justice (NIJ). The grant has paid costs associated with the DNA testing of identified biological evidence in old laboratory case files that included the name of at least one known suspect who subsequently was convicted in that case of a “violent felony offense under state law.” DFS reported to the FSB in January 2012 that, as of December 31, 2011, it had completed the testing of 783 cases. Those represented all of the cases that, at that time, were known to qualify for inclusion in the testing program. There were believed to be more than 600 remaining cases, however, that included saved evidence but lacked confirmation of a suspect’s conviction of a state violent felony offense.

Two leading objectives were discussed by the Board, both relating to assistance that might be obtained from *pro bono* attorneys and other qualified volunteers. The first was that volunteer resources should be applied to researching conviction information so that qualifying cases could be tested without further delay. The second was that a priority should be placed on utilizing volunteers to locate and notify convicted persons, not previously notified about the Program, who were “eliminated” based on DNA testing performed (*i.e.*, their DNA profiles were “not indicated” on crime scene evidence tested).

As prior Annual Reports have noted, fewer attorneys have provided *pro bono* assistance to the notification effort than have been needed. The staff of the Virginia State Crime Commission, however, assisted the FSB Notification Subcommittee and successfully researched conviction information for cases originating in several Central Virginia jurisdictions. In most cases, research required locating both indictment and conviction records for suspects named in the case files. Their efforts and that of a few other volunteers resulted in 54 additional cases qualifying for the Testing Program in 2012.

Progress made in connection with locating and notifying convicted persons “eliminated” by the DNA testing performed will be addressed below in the summary of the Notification Project.

In May 2012, the Board also considered the matter of 134 convicted persons for whom known DNA samples were needed to complete the DNA analyses of crime scene evidence in their cases. A number of these individuals had in fact been notified about the Testing Program. All notified individuals were offered the opportunity to obtain a copy of their Certificates of Analysis, and some requested such copies. All who requested copies were provided those records. The Certificates of Analysis reporting the results of DNA testing of their old case evidence stated that the convicted person’s DNA sample could be submitted to enable testing to be completed. The Board discussed whether to use *pro bono* volunteers to make personal contacts with all convicted persons from whom known samples were needed. The Board recognized that certain persons previously notified had specifically requested no further contact and that some of the 134 persons were known to be deceased. Ultimately, the Board decided to continue ongoing notification efforts, deferring a decision about whether to use volunteer resources to attempt to contact all or only non-notified persons whose known samples were needed. Shortly before the Board’s October 2012 meeting, a small number of attorney volunteers offered to attempt to locate and notify convicted persons whose known samples were needed, and they were assigned cases of persons not previously notified.

At the quarterly meeting of the Forensic Science Board on October 10, 2012, DFS presented the following updated data relating to the progress of the Post-Conviction DNA Testing Program:

Case files identified with evidence suitable for DNA testing	3,052
Cases with evidence and at least one named suspect	2,204
Cases with evidence and at least one named suspect convicted of a state violent felony offense	835
Cases out of program scope based on known conviction information	938
Cases remaining with unconfirmed conviction information	431
Program-Eligible Cases (state violent felony convictions)	
Total Number of Program-Eligible Cases	835
Cases in which Certificates of Analysis have been issued	801
Cases tested but not yet reported	3
Cases awaiting testing	31

DNA testing completed in 801 cases reflects the following results:

Suspect Convictions for state violent felony crimes	890
Convicted suspect “eliminations / Not Indicateds”	76
Convicted suspects “not eliminated”	227
Convicted Suspects For Whom Known Samples are Needed	136
Convicted Suspects Whose Cases have Insufficient Scientific Data Upon Which to Draw a Conclusion	453

DFS obtained an extension from the National Institute of Justice (NIJ) to continue spending down the remaining balance of its 2008 NIJ Post-Conviction DNA Testing Assistance Grant until December 31, 2012. DNA testing by DFS examiners continues for qualifying cases, and results continue to be reported in Certificates of Analysis that are provided in each case to the original investigating agency, with a copy to the relevant Commonwealth's Attorney. When an elimination of a named suspect is reported, DFS continues to contact the relevant Commonwealth's Attorney, or the Commonwealth's Attorney's lead Deputy, to inform him/her of the reported finding. Importantly, copies of Certificates of Analysis are also provided upon request to convicted suspects and/or to their legal counsel.

Convicted Suspect Notification Project

Since 2008, the Department of Forensic Science has provided staff support to the Forensic Science Board to carry out the responsibility assigned to the Board by the General Assembly to notify convicted case suspects (i) of the existence of physical evidence located in their old DFS case files and (ii) that such evidence was available for DNA testing. The history and progress of the convicted suspect notification project has been reported in detail in previous Annual Reports of the Forensic Science Board. Briefly, however, the Board became responsible for providing notice of the Post Conviction DNA Testing Program to all persons who were convicted of violent felony crimes in cases in which evidence was submitted to DFS for forensic investigation between 1973 and 1988 and in which taped-down samples of evidence were retained in the case files. Initially, information provided by the Department of Corrections, State Police, and other public records was used to locate recent address information for convicted persons requiring notification.

Authorizing legislation enacted by the General Assembly in 2009, allowed *pro bono* attorneys and other volunteers to assist in the suspect notification effort. DFS has since partnered with the staff of the State Crime Commission and the Mid-Atlantic Innocence Project (MAIP), which took shared responsibility for recruiting and training potential volunteers and coordinating the volunteer effort. The Executive Director of the Crime Commission, Kristen Howard, who sits on the Board as designee of the VSCC Chair, serves as Chair of the Board's Notification Subcommittee. Over time, her reports to the Board have reflected that fewer volunteers than expected stepped forward to accept case assignments and that for a period of time, the results of volunteers' efforts were marginal.

In 2010 and 2011, the NIJ agreed to modify the scope of DFS' 2008 Post-Conviction DNA Testing Assistance Grant to allow sub-awards to the VSCC and the MAIP to support their expenses associated with Notification coordination activities. The sub-award to the VSCC supported research and case review by VSCC staff, including use of a Westlaw person-finder database. VSCC staff used this database to locate suspect death records and identify some suspect addressees that previously were unknown. In 2012, they continued to coordinate assignments to available *pro bono* volunteers and worked with Circuit Court clerks to confirm suspect conviction records. As previously indicated, additional cases were added to the testing program because VSCC staff and a small number of other volunteers obtained records from several state Circuit Courts that confirmed suspect convictions for violent felony crimes. This effort also helped to confirm that a number of cases identified with saved evidence did not result in violent felony convictions, and hence were ineligible for inclusion in the Testing Program.

Further, in late November 2011, an attorney from Northern Virginia volunteered to accept an assignment of cases prioritized for notification. He agreed to try to locate and notify 29 persons not previously notified who were believed to have been convicted but whose DNA profiles were not indicated on the old case evidence, based on the DNA testing performed. Using various online resources and other search methods, he located and notified 22 convicted persons by May 2012. Many, but not all, of the individuals he notified requested copies of the DNA test reports issued in their cases. Some sought legal advice and assistance from MAIP or other organizations providing legal counsel to persons who may have been wrongly convicted. One individual, notified by the volunteer in late January, received a Writ of Actual Innocence from the Supreme Court of Virginia on May 24, 2012, bringing the total number of exonerations attributable to the Post-Conviction DNA Testing Program to six.

DFS reported to the Board in August 2012, that it had completed an extensive review of its Notification Project database. The review revealed an over-estimation of the number of Program case suspects requiring notification. Whereas DFS previously counted more than 1,100 suspects believed associated with Program-eligible cases, approximately 200 of them were named suspects in cases in which no suspect was convicted of a qualifying offense. The revised Project data were reported to the Board at its quarterly meeting in August and, accordingly, were reflected in the updated figures reported to the Board on October 10, 2012. The following represents the status of the Notification Project's efforts as of that meeting:

Suspect Convictions in 835 Program cases	947
Notifications Required to Convicted Suspects Believed Still Living	727
Confirmed Notifications to Convicted Suspects Believed Still Living	358
Undelivered / Unconfirmed Notifications	369
Cases in which Certificates of Analysis have been issued	801
Letters to suspects with known addresses advising that Certificates are available	375
Certificates provided to suspects/attorneys upon request	221

DFS will continue to send every Certificate of Analysis issued reflecting DNA test results to the original investigating agency and the relevant Commonwealth's Attorney. DFS, the VSCC staff and the MAIP will continue to support the Board in its effort to notify all convicted persons of the availability of DNA test results. The VSCC staff will continue to coordinate volunteer activities with pro bono attorneys and other volunteers, and MAIP has agreed to offer additional volunteer training sessions, as well as continue to provide legal advice and assistance to convicted persons who contact them. A priority will be placed on utilizing (i) *pro bono* attorneys to locate and notify convicted persons whose known DNA samples are needed to complete the DNA examination of evidence in their old case files and (ii) volunteers to research conviction information not yet confirmed in remaining cases. Any case that becomes Program-eligible because a suspect has been confirmed as having been convicted of a violent felony offense will be tested by DFS, and the Board will continue efforts to notify such formerly convicted persons of the availability the DNA test results.

Report of the Urban Institute on Post-Conviction DNA Testing and Actual Innocence

On June 18, 2012, the Urban Institute (UI), a nonpartisan organization that conducts economic and social policy research, issued a report of a study it performed based on data gathered from Virginia's Post-Conviction DNA Testing Program. A copy of the report was provided to each member of the Board. The study, entitled *Post-Conviction DNA Testing and*

Wrongful Convictions, was commissioned by the NIJ. As a grantee awarded funding by the NIJ, DFS was obligated to provide the UI research team access to its Post-Conviction DNA Testing Program case files, which included forensic laboratory test results and, generally, whatever information about the crime, suspects, and prosecution as may have been provided to DFS forensic examiners.

The UI report examined the question “What proportion of convicted offenders in serious person crimes with retained forensic evidence could be exonerated if that evidence were DNA tested?” The authors explain that they used “observational data” from Virginia’s Post-Conviction DNA Testing Program to attempt to identify the rate of wrongful convictions. The study team had intended to conduct background research about the reviewed cases in the communities and courthouses where the cases selected for study were investigated and tried, but ultimately, their study included visits to only three county courthouses. They acknowledged the possibility that other non-forensic facts relating to a case, unavailable to UI, could affect the conclusion one might draw about the guilt or innocence of a convicted offender. Nonetheless, UI focused much of its analysis on 422 sexual assault cases, and basically concluded that in 8 to 15 % of cases, findings of eliminations supported exoneration.

DFS reviewed the case files identified by UI as those demonstrating eliminations supportive of exoneration and shared its observations about the report with the Board at its August 2012 meeting. It has been the position of DFS throughout the Testing Program that an analysis that indicates that a suspect’s DNA profile was not indicated on evidence tested suggests that further investigation by the submitting law enforcement agency and/or Commonwealth’s Attorney may be warranted. It is for that reason that DFS, among other measures, (i) issued DNA test results to both the investigating agencies and relevant Commonwealth’s Attorneys, (ii) individually contacted Commonwealth’s Attorneys to alert them to the issuance of reports reflecting eliminations of convicted persons, (iii) took extensive measures to attempt to locate and notify suspects convicted in each Testing Program case about the testing program, and (iv) provided DNA test results to any located suspects who wished to obtain his/her case test results. In that respect, DFS concurred with the conclusion of the UI that DNA test results are only a starting point for detecting wrongful convictions, rather than an endpoint.

DFS also concurred, however, with comments in a statement relating to the UI report that was issued on July 5, 2012, by the Executive Director of the New York Innocence Project. She cautioned that “evaluating the impact of exclusionary results in DNA testing is extremely complex.” The statement underscored the point that the UI researchers did not have important facts needed to make final determinations about innocence.

The Board was advised that DFS would continue to impress upon Commonwealth’s Attorneys the advisability of giving thoughtful and informed consideration to Certificates of Analysis indicating eliminations of formerly convicted persons.

Freedom of Information Act Requests for Post-Conviction DNA Program Records

In its 2012 Special Session I, the General Assembly enacted HB 1301, the Budget Bill for fiscal years 2013 and 2014. Language of the Budget Bill included the following in Item # 405:

2. Upon a request pursuant to the Virginia Freedom of Information Act for a certificate of analysis that has been issued in connection with the Post Conviction DNA Testing Program and that reflects that a convicted person's DNA profile was not indicated on items of evidence tested, the Department of Forensic Science shall make available for inspection and copying such requested record after all personal and identifying information about the victims, their family members, and consensual partners has been redacted, except where disclosure of the information contained therein is expressly prohibited by law or the Commonwealth's Attorney to whom the certificate was issued states that the certificate is critical to an ongoing active investigation and that disclosure jeopardizes the investigation."

Immediately following July 1, 2012, the effective date of the Budget Bill, DFS responded to five Freedom of Information Act (FOIA) requests. DFS provided in response, on computer diskettes, copies of Certificates of Analysis reflecting 75 convicted suspect eliminations in 67 cases. DFS explained in accompanying letters that Commonwealth's Attorneys requested that four certificates, reflecting five suspect eliminations, were withheld. DFS later provided the same records in response to three additional FOIA requests. On July 12, 2012, a Commonwealth's Attorney, who had requested that certificates be withheld, advised that his investigation revealed that no suspect in fact had been convicted in two of the tested cases. At that point, the two cases were deemed Program-ineligible and withdrawn from the Program. Adjustments were made to the Program database and to the testing expenses charged against the NIJ grant.

FAMILIAL DNA SEARCHING

As reported in last year's Annual Report of the Board, DFS acquired the ability in March of 2011 to conduct special searches of the Virginia DNA data bank that are referred to as "familial DNA searches." In routine DNA data bank searches, a DNA profile developed from biological material collected at a crime scene is checked against known profiles in Virginia's DNA data bank for the purpose of identifying any exact match, if one exists among those profiles. Using specialized search software, it is possible to conduct a search that is less stringent, in order to identify profiles that are not identical but, rather, similar enough to point to a possible family member of the person who deposited DNA on the evidence sample (since relatives share genetic similarities). Such "familial searching" typically results in a large number of associations that then need to be refined by further DNA "lineage" testing. The process may identify a number of DNA profiles of persons who may be related to the individual whose DNA was found at the crime scene. An actual family member ultimately may or may not be found among similar profiles identified in the data bank. The resulting profile(s), if any, would be regarded as a "lead" that would require law enforcement investigation.

To identify cases appropriate for familial DNA searching, DFS developed a case acceptance policy that set criteria for DFS approval of requests for familial searches. Consistent with directions of the Secretary of Public Safety, DFS considers joint requests from law enforcement officials and Commonwealth's Attorneys to conduct familial DNA searches in cases involving unsolved violent crimes against persons, provided other investigative leads had been exhausted and critical public safety concerns remained. In such a case, if crime scene evidence yields a DNA profile suitable for searching and the chief law enforcement official and Commonwealth's Attorney commit to further investigation if a potential relative is identified, the

DFS Director will direct that a familial DNA search be performed in accordance with departmental scientific protocols.

Members of the DFS Scientific Advisory Committee (SAC) reviewed the Department's Familial Search procedures. At the May 2012 meeting of the SAC, DFS Biology Program Manager Brad Jenkins indicated that the Department was conducting its sixth search. Consistent with DFS practice, the Department declined to provide information about the criminal investigations associated with those data bank searches.

DNA POPULATION STATISTICAL CALCULATIONS

As reported in the Board's 2011 Annual Report, DFS advised the Board last year about revised national guidelines for forensic DNA interpretations that were published in 2010. The guidelines were expected to affect certain types of DNA mixture interpretations because they recommended that data below a certain threshold should not be used in the population probability calculations. When data utilized for this type of statistical estimate is limited to data above the recommended threshold, the discriminating power of a potential DNA match is diminished, making the estimated DNA matches more common. In May 2011, DFS identified approximately 375 forensic cases from the prior 16-month period in which the former DNA mixture statistical calculation was utilized. On a continuous basis, DFS estimated it works about 15 cases per month that would be impacted by the new national guidelines.

DFS implemented several strategies to address this issue. First, it entered into a contract with a private company, Cybergeneics (CG), to calculate a population statistic known as a Likelihood Ratio (LR) that follows the revised DNA interpretation guidelines. CG was engaged to provide case reports for Virginia forensic DNA cases that could be submitted into evidence at trial. An expert from the company could testify regarding the statistical calculation, should that be needed.

A second strategy was to acquire the necessary computer software, hardware and training so that DFS scientists could generate their own LR calculations in applicable DNA mixture cases. The software and instrumentation contracts were finalized and the training of DFS personnel in the use of the CG "TrueAllele" statistical method commenced in January 2012. Four staff members were trained initially.

Finally, to ensure more fully that the Department's needs will be satisfied in the future, DFS commenced an evaluation and validation of another software product, "Armed Xpert." The validation for Armed Expert is being reviewed by the SAC. The SAC's DNA Subcommittee reported at the SAC's October 2012 meeting that the review at that time was still in progress. A final report to the SAC is anticipated in May 2013.

FACILITY EXPANSION AND RENOVATION

Eastern Laboratory

The multi-phase renovation of space at the Eastern Laboratory building in Norfolk continued in 2012. Following renovations in 2011 that provided expanded facilities for Administrative Offices and the Latent Prints, Firearms, and Biology Sections, two projects remained. Work is scheduled in late October 2012 to re-configure the laboratory parking lot to increase the number

of parking spaces. In addition, contracts were awarded and pre-construction planning is occurring for renovations to accommodate expansion of the Toxicology and Controlled Substances Sections.

Central Laboratory

The Central Laboratory request for major expansion is included in the Commonwealth's Six-Year Capital Outlay Plan, but not funded at this time. Pre-planning and feasibility studies will still be required to determine if expansion for Department of Forensic Science and the Office of the Chief Medical Examiner can be accommodated on the current site.

Western Laboratory

The Western Laboratory site in Roanoke was expanded in November 2009 with the purchase of the adjacent property from Roanoke County School Board. The prospect of laboratory expansion was accelerated with the inclusion of pre-planning funding in the FY 13-14 Biennial Budget.

2. Policy and priorities in response to agency needs

GRANTS

Since November 1, 2011, funding has been available or been awarded to DFS under the following grant programs:

2008 Post-Conviction DNA Testing Assistance Program - \$4,520,295 from the National Institute of Justice (NIJ). Funding provided to pay the costs associated with the DNA analysis of a minimum of 700 post-conviction cases. Grant period extended to March 31, 2012. Change of scope granted to provide funding to the Virginia State Crime Commission and Mid-Atlantic Innocence Project for their costs associated with case review and notification of convicted persons. ***Expires December 31, 2012.***

2008 Research and Development in the Area of Controlled Substances Detection and Analysis - \$49,774 from NIJ. Funding provided to develop a Thin Layer Chromatography Method for the separation of enantiomers using chiral mobile phase additives. ***Expired August 31, 2012.***

2009 Paul Coverdell Forensic Science Improvement Grant Program - \$164,951 to DFS through DCJS for renovation of existing space at the Central Laboratory to create lab work space and for the modification of office space. ***Expired November 30, 2011.***

FY 10 Using DNA Technology to Identify the Missing – \$468,640 from NIJ to continue the joint effort between DFS and the OCME to conduct DNA analysis and profiling of human remains currently in OCME storage and other cases as submitted by law enforcement. ***Extended to December 31, 2012.***

FY 10 Forensic DNA Backlog Reduction Program – \$920,520 from NIJ to reduce the forensic casework backlog in the Forensic Biology Section. ***Expired June 30, 2012.***

2010 Paul Coverdell Forensic Science Improvement Grant Program – \$311,246 to DFS through DCJS to conduct training in the Chemical Analysis and Physical Evidence Sections and to purchase equipment and supplies for the Chemical Analysis Section. **Expired August 31, 2012.**

FY 11 DNA Backlog Reduction Grant Program -- DFS was awarded \$1,447,358 from NIJ to enhance capacity and reduce the forensic case backlog. This grant commenced on October 1, 2011 and **continues until March 31, 2013.**

2011 Continuation of Byrne Justice Assistance Grant – \$11,898 to continue the International Association for Identification (IAI) personal certification training and testing project for crime scene investigators. Funding to be used to provide certification training books and reimbursement of testing fees for Forensic Science Academy (FSA) graduates and for participants of the fall 2011 and spring 2012 FSA classes. **Expired June 30, 2012.**

2011 Continuation of Byrne Justice Assistance Grant – \$72,710 to continue the Digital and Multi-Media Evidence Section expansion project. Funding will be used to add equipment and supplies and to provide employee training to further enhance the Section's case output and ability to recover cell phone data in criminal cases. **Expired June 30, 2012.**

2012 Highway Safety Grant Program -- \$228,751 through DMV to (i) reimburse law enforcement officers for traveling to Breath Alcohol Training; (ii) hire one part-time administrative assistant for Breath Alcohol; (iii) purchase the supplies for breath alcohol instrument classroom instruction; and (iv) allow forensic scientists in the Breath Alcohol section to attend professional training. **Expired September 30, 2012.**

2011 Paul Coverdell Forensic Science Improvement Grant Program – \$230,825 to DFS through DCJS for training, equipment and software for the Physical Evidence, Chemistry, and Calibration and Training program areas. Commenced on October 1, 2011 and **continues until June 30, 2013.**

2012 Byrne Justice Assistance Grant (New Projects) – \$75,000 awarded to enhance capabilities of the forensic Laboratory Information Management System (LIMS) to enable submitting agencies (law enforcement, OCME, *etc.*) to request forensic laboratory examinations remotely, as well as to provide for secure electronic transmission of Certificates of Analysis. Federal funds = \$67,500. DFS match = \$7,500. Began on July 1, 2012 and **continues through June 30, 2013.**

2012 Continuation of Byrne Justice Assistance Grants – \$5,568 awarded to continue the IAI personal certification training and testing project for crime scene investigators. Funding was requested for reimbursement of testing fees for participants of the fall 2012 and spring 2013 FSA classes. If interest in certification among FSA participants is low, resulting in a surplus of funds, the award will be used to assist other crime scene personnel who express an interest in attaining certification. Federal funds total \$5,284, with a DFS match of \$278. Began on July 1, 2012 and **continues through June 30, 2013.**

2012 Continuation of Byrne Justice Assistance Grants – \$66,655 awarded to continue the Digital and Multi-Media Evidence Section capacity enhancement project. Funds were requested for training, equipment, and for a consultant to evaluate workflow in the computer forensics

section and provide recommendations to improve the section's efficiency, decrease turn around time, and increase the number of monthly computer case completions. Federal funds total \$63,322, with a DFS match of \$3,333. Began on July 1, 2012 and *continues through June 30, 2013*.

FY 12 DNA Backlog Reduction Grant Program – \$1,165,649 from NIJ to enhance capacity in the Forensic Biology Section and provide training for DNA examiners. Began on October 1, 2012 and *continues through March 31, 2014*.

FY 12 Paul Coverdell Forensic Science Improvement Program -- \$106,000 from NIJ to provide training and equipment for Chemistry, Physical Evidence, and Calibration and Training program areas. Began on October 1, 2012 and *continues through September 30, 2013*.

FY 12 Solving Cold Cases with DNA -- Co-applied with VSP for funding of approximately \$500,000 to investigate cold cases and to conduct DNA analysis in violent crime cold cases submitted to DFS. Began on October 1, 2012 and *continues through March 31, 2014*.

2013 Highway Safety Grant Program – \$172,585 was awarded through DMV to (i) reimburse law enforcement officers for travel to Breath Alcohol Training; (ii) hire a part-time administrative assistant for Breath Alcohol section; and (iii) purchase the supplies for breath alcohol instrument classroom instruction. Began on October 1, 2012 and *continues through September 30, 2013*.

3. General Fiscal Year Operational Budget and any Major Changes in Appropriated Funds

BUDGET OVERVIEW

The Department's 2013-2014 biennial budget, as enacted by the General Assembly in its 2012 Special Session I, includes General Fund appropriations for operating expenses of \$36,534,717 for FY 2013 and \$36,250,879 for FY 2014. The increased General Fund appropriation, as compared to the prior biennium, was primarily to cover increased costs related to VITA services.

The Department's FY 2013 Non-General (federal) Fund appropriation was set at \$1,505,984. The federal fund reduction reflects the subtraction of funds attributable to the Post-Conviction DNA Testing Program grant that is expiring on December 31, 2012.

4. Actions to foster and promote coordination and cooperation between the Department and the user programs which are served

Review of programs; recommendations, if any:

CONFERENCES, PRESENTATIONS, AND TRAINING

DFS representatives have attended regional meetings and statewide conferences of its user agencies to give presentations on relevant forensic science issues and be available for

feedback and comment on the services that the Department is providing. This included meetings and conferences for investigators, sheriffs, chiefs of police, and Commonwealth's Attorneys, defense attorneys and Judges.

In addition to the twice-yearly Forensic Science Academy training sessions offered for nine weeks to selected classes of law enforcement officers, the presentation of other short courses on crime scene investigation, and the year-round training and certification of breath alcohol instrument operators, DFS continues to organize the annual Virginia Forensic Science Academy Retraining Seminar, which provides Academy graduates updates on DFS services and practices. All of these conferences, presentations, and training sessions provide an opportunity for DFS to receive feedback on the services it provides to user agencies.

STATUS OF BACKLOGS ON OCTOBER 1, 2012

Section	Ending Backlog (cases)	Average Turn Around Time (days)	Cases Over 30 days	Cases Over 60 days	Cases Over 90 days	Cases Over 120 days
Controlled Substances	2,759	32	480	15	1	0
Firearms	325	30	102	35	11	2
Forensic Biology	1,000	84	693	354	156	78
Latent Prints	392	50	196	58	13	4
Questioned Documents	20	26	3	0	0	0
Toxicology	1,783	74	1,141	823	576	356
Trace Evidence	67	52	32	16	5	2

FACTORS AFFECTING DFS WORKLOADS AND BACKLOGS

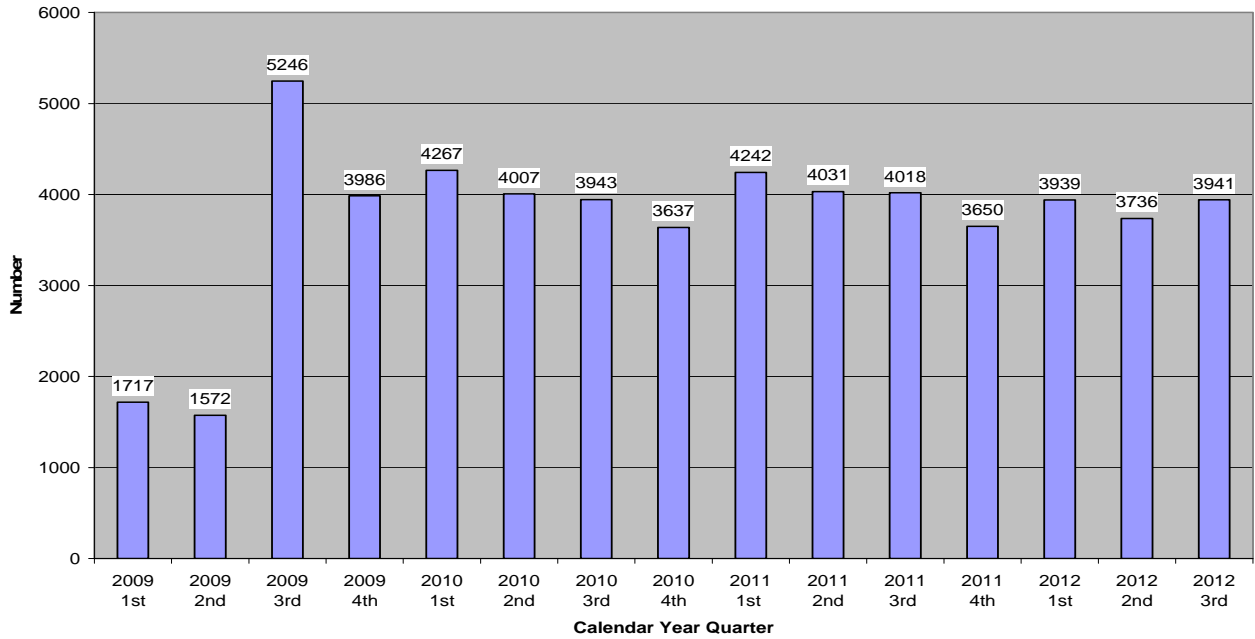
Decision of the Supreme Court of the United States in Melendez-Diaz v. Massachusetts

On June 25, 2009, the Supreme Court of the United States issued a decision in *Melendez-Diaz v. Massachusetts*, holding that a Certificate of Analysis issued by the state forensic laboratory in Massachusetts could not stand alone as evidence of the nature and weight of a controlled substance in a criminal case for drug distribution. The Court held that in order to preserve the defendant's Sixth Amendment right to confront witnesses against him, the analyst must appear in person to testify. The Court's decision had an immediate and measurable impact on DFS, one that continues to affect the Department's ability to manage its workload in several forensic disciplines more than three years later. As reported in prior Annual Reports of the Board and supported by current data, the number of subpoenas for analyst testimony and the amount of time analysts are required to spend out of the laboratory, on court travel and appearances, has risen dramatically as compared to the pre-*Melendez* period. The Sections most acutely affected have been Controlled Substances and Toxicology.

Legislation enacted by the General Assembly in 2009 and 2010 helped to establish an orderly process for ensuring defendants their Sixth Amendment rights but have been of limited assistance in addressing the number of subpoenas received by Department forensic analysts, the

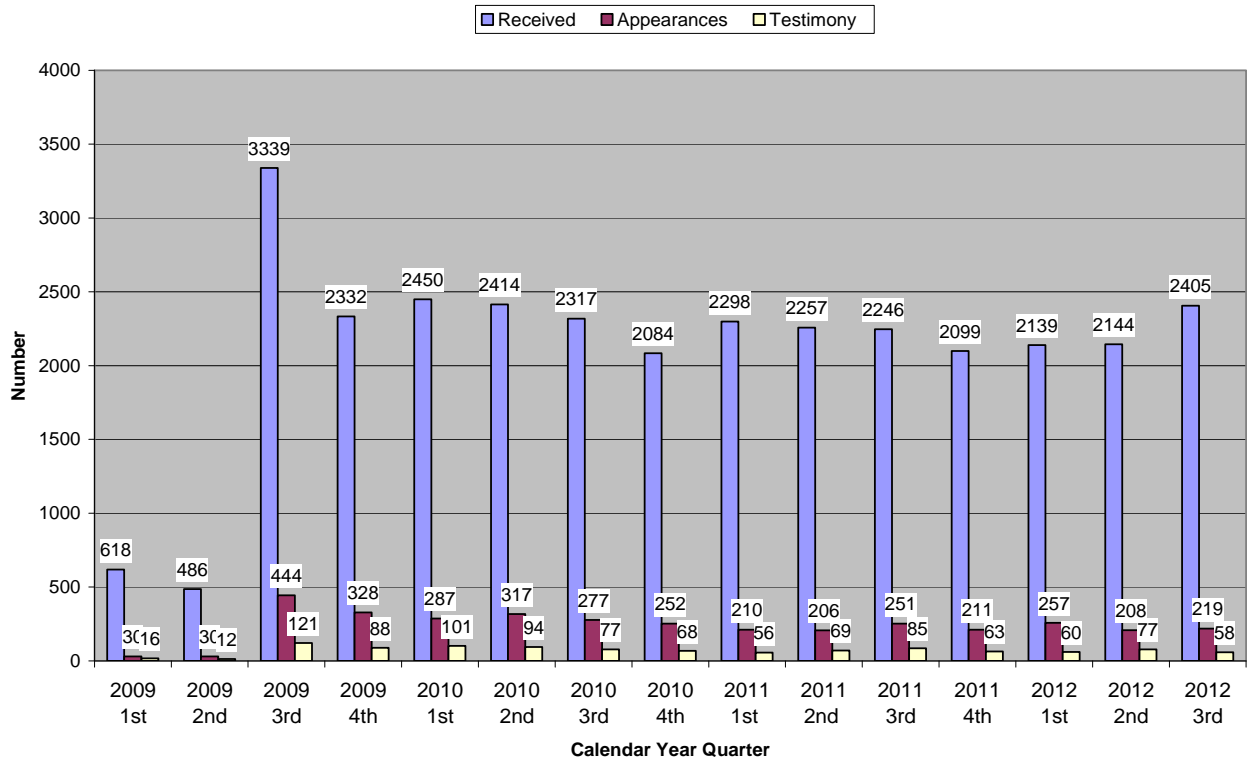
frequency with which analysts are required to appear at hearings and trials, the amount of time they spend out of the laboratory for court travel, or the resulting impact on section backlogs. The graphs that follow illustrate the impact of the *Melendez-Diaz* decision.

Total Subpoenas Received (all sections)



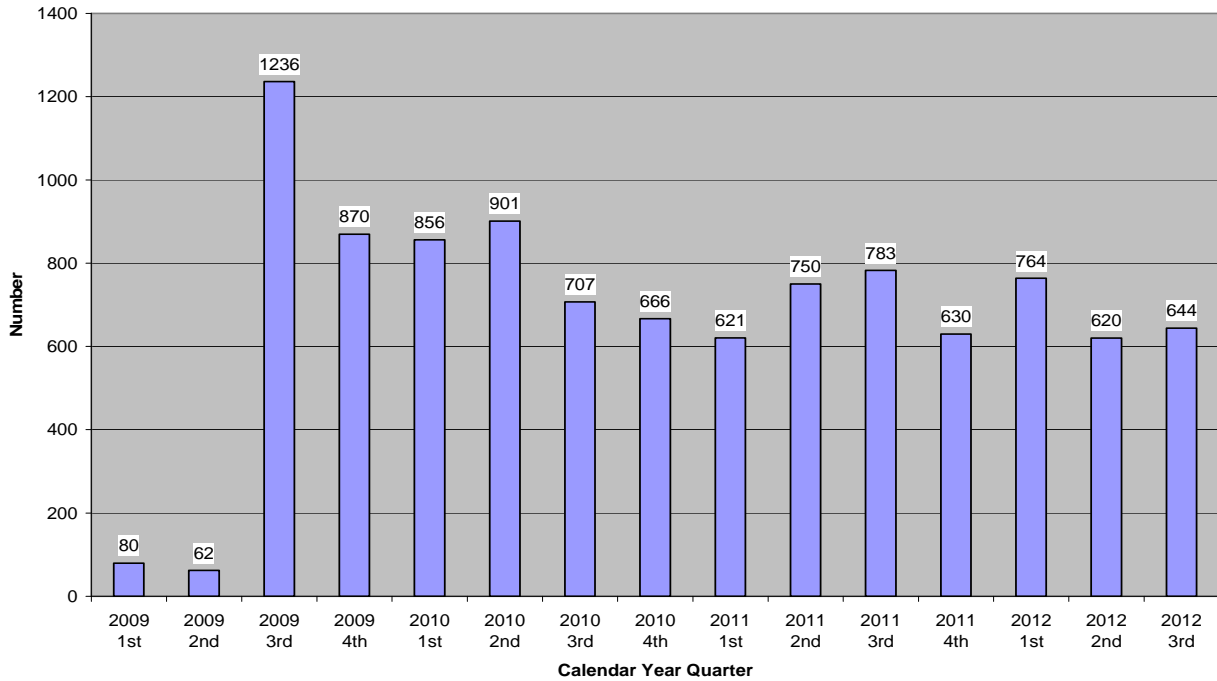
Ex. 1

Controlled Substances Subpoenas



Ex. 2

Controlled Substances Hours Out of Laboratory



Ex. 3

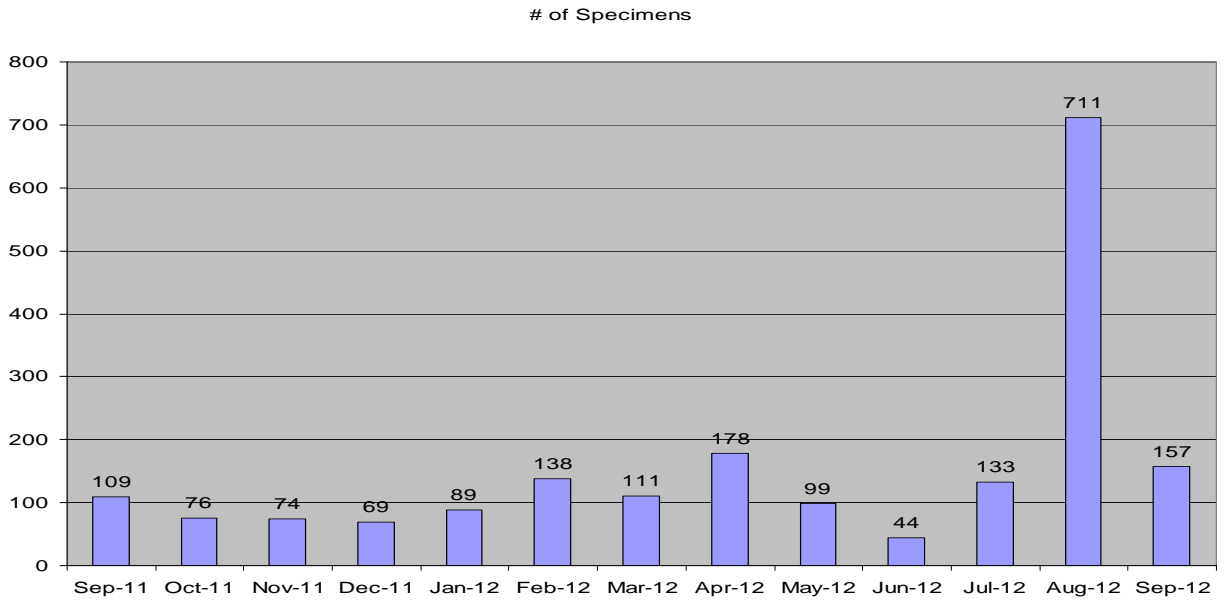
Synthetic Cannabinoids, “Research Chemicals,” and Clandestine Methamphetamine Labs

DFS reported to the Board that from late 2011 through 2012, it experienced an upward trend in case submissions requiring forensic analyses of suspected synthetic cannabinoids and/or other amphetamine- or Ecstasy-like compounds, popularly known as “bath salts,” along with an increased number of case submissions relating to investigations of clandestine methamphetamine laboratories. In addition to the increase in the number of case investigations, such cases have tended to involve numerous items of submitted evidence and more complex analytical protocols than required for analysis of other frequently submitted drugs of abuse. Consequently, the workload of the DFS Controlled Substances Section has generally reflected an increased backlog of cases and longer case turnaround times in 2012.

Among the challenges faced by DFS and by law enforcement with regard to these substances is the evolving nature of the abused substances and the changing character of the criminal activity. Specifically, manufacturers and sellers of synthetic cannabinoids and “bath salts,” now labeled generically as “research chemicals” by laboratory scientists and others, have been able to avoid criminal penalties in many cases by slightly modifying chemical formulations as certain substances have been prohibited under either Va Code §§ 18.2-248.1:1 or 54.1-3446 (Schedule I). Further, to perform analyses, DFS must acquire a continuously increasing variety of drug standards that, when available, are generally costly. In addition, the illegal manufacture of methamphetamines, once requiring space in clandestine laboratories, now can be accomplished in a soft drink bottle, using instructions readily available on the Internet. While still activity that is largely focused in the southwestern area of Virginia, the Tidewater and Hampton Roads areas have seen increased meth lab activity in 2012.

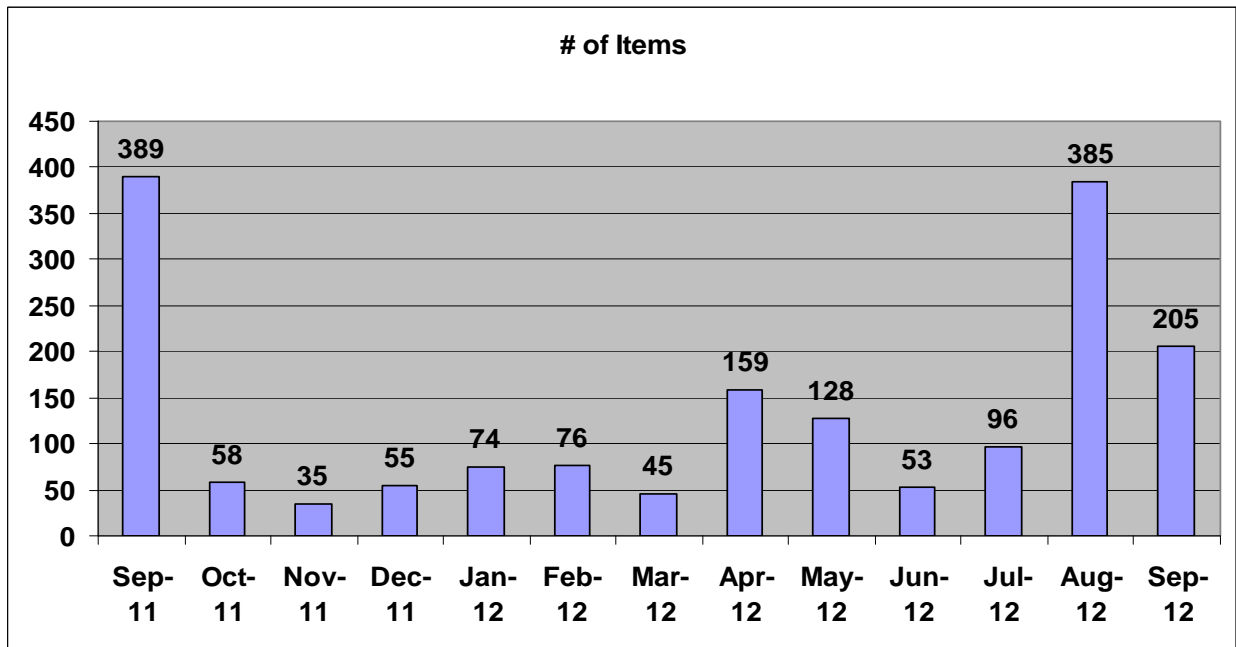
DFS continues to keep the Board advised of the workload demands arising from these cases and the methods and resources that are applied to address those demands. The graphs below reflect the increases in case submissions and are followed by a listing of measures implemented by DFS in 2012 to attempt to meet those challenges.

SYNTHETIC CANNABINOID SPECIMENS SUBMITTED



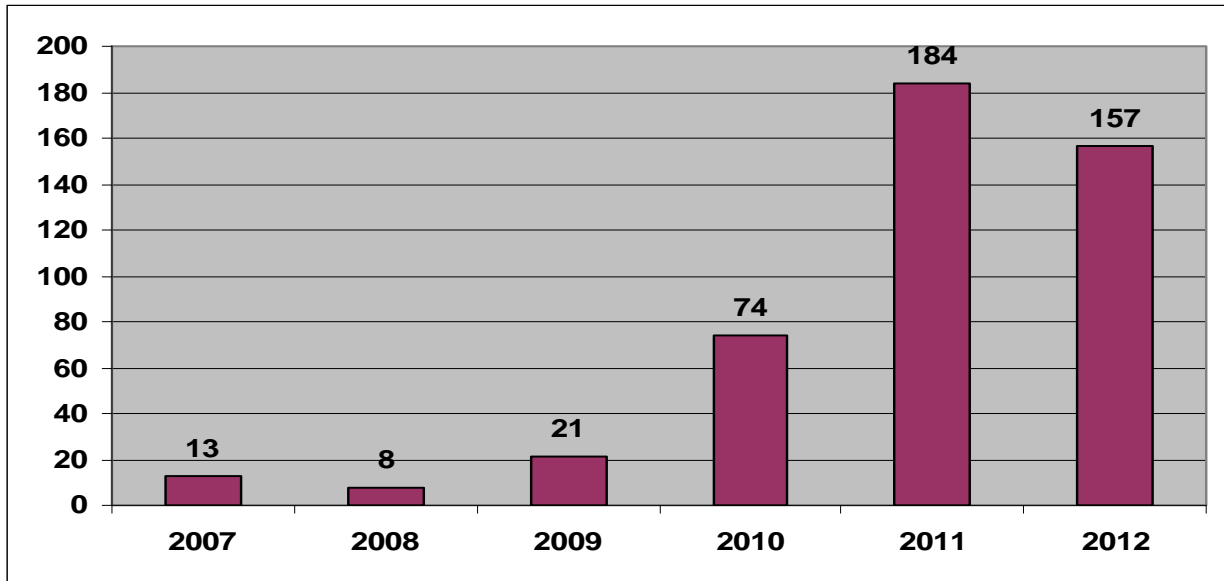
Ex. 4

“RESEARCH CHEMICALS” (“BATH SALTS”) ITEMS SUBMITTED



Ex. 5

**METHAMPHETAMINE LAB CASES SUBMITTED
through September 30, 2012**



Ex. 6

Measures Undertaken by DFS to Address Backlogs and Improve Case Turnaround Times

- Decentralization of DUID Cases from Central to other DFS regional laboratories
- Implementation of a Meth Lab Team in Western Laboratory, with examiners qualified in both drug and trace evidence analyses.
- Encouragement of Commonwealth's Attorneys, the Defense bar and Courts in certain jurisdictions to consider implementing "DUID days" on the Court calendar to facilitate more efficient use of DFS Toxicology resources.
- Utilization of two-way video-conferencing for examiner testimony where permitted.
- Acquisition of new instrumentation to increase efficiency

5. Review of new rules and regulations; recommendations, if any:

**REGULATIONS FOR OBTAINING INFORMATION FROM THE DNA DATA BANK
AND PROCEDURES FOR VERIFICATION AND AUTHORIZATION OF
PERSONS REQUESTING INFORMATION FROM THE DATA BANK (6 VAC 40-60)**

Regulations were initially proposed by the Board in 2007 to comply with Virginia Code §19.2-310.5, which requires that DFS promulgate regulations that outline the method for obtaining information from the Virginia DNA data bank and procedures for verifying the requestor's identity and authority to request such information. Those proposed regulations were withdrawn in 2010 during the regulatory process because the Board concluded at that time that they were drawn too narrowly. Revised regulations were proposed and submitted for administrative review and public comment, only to require subsequent revisions to conform to legislation enacted in the 2011 Session and, in January 2012, to address recommendations of the

Registrar's Office. At the Board's August 2012 meeting, DFS Department Counsel advised the Board that the proposed final regulations had been approved by the Governor and had finally become effective.

Also at the August meeting, Department Counsel announced that DFS would initiate a required periodic review of its other regulations, beginning with a posting of the regulations for public comment on the Town Hall website. The four regulations to be reviewed are: (i) Breath Alcohol Testing, (ii) Approval of Field Tests for Detection of Drugs, (iii) Implementation of the Law permitting DNA Analysis upon Arrest for all Violent Felonies and Certain Burglaries, and (iv) Approval of Marijuana Field Tests for Detection of Marijuana Plant Material.

6. Recommendations submitted to the Forensic Science Board or the Director by the Scientific Advisory Committee:

SCIENTIFIC ADVISORY COMMITTEE (SAC) RECOMMENDATIONS AND ACTIONS IN CY 2012

- The SAC voted at its May 2012 meeting to have its Forensic Biology Subcommittee, chaired by Dr. John Butler, review the Department's evaluation and validation of two software products that are expected to be used by DFS examiners for performing population statistical calculations.
- The SAC voted in May 2012 to establish a Subcommittee to review the DFS Trace Evidence Manual.
- Also at the May 2012 meeting, the SAC elected Ms. Jami St. Clair to serve as SAC Chair and Mr. T.L. Price to serve as Vice Chair for the term beginning July 2012.
- At the October 2012 meeting, the SAC welcomed new board member Randall Beatty, of Austin, Texas. Mr. Beatty succeeds to the seat held by a member of the International Association of Chemical Testing. He replaces Dr. Dale Carpenter who resigned from the SAC in March 2012.
- Also at the October 2012 meeting, the SAC approved a recommendation from the Subcommittee reviewing Toxicology Method Validation to accept the method validation for cannabinoid and benzodiazepine analyses utilizing the LC/MS/MS methodology.

FORENSIC SCIENCE BOARD (FSB) RECOMMENDATIONS AND ACTIONS IN CY 2012

- The Board gave approval to DFS in 2012 to apply for and, if awarded, to accept the following grants: *FY 12 DNA Backlog Reduction Grant Program (\$1,165,649)*; *FY 12 Paul Coverdell Forensic Science Improvement Program Grant (\$106,000)*; *FY 12 Solving Cold Cases with DNA Grant (\$110,000)*; and the *FY 12 Using DNA Technology to Identify the Missing Grant (\$471,673)*.

- The Board discussed and approved at its January 2012 meeting minor revisions to its then pending proposed regulation, Regulations for Obtaining Information from the DNA Data Bank and Procedures for verification and Authorization of Persons Requesting Information from the DNA Data Bank, 6 VAC 40-60, to address issues raised by the Registrar of Regulations.
- The Board authorized the Chair in January 2012 to correspond with the Secretary of Public Safety to express the Board's concern about potential revenue reductions that would require the elimination of the DFS Photo Processing Section and the adverse impact that would have on smaller law enforcement agencies.
- At its May 9, 2012 meeting, the Board re-elected Virginia Board of Pharmacy Executive Director Caroline Juran to serve as FSB Chair and elected Fairfax Commonwealth's Attorney Raymond Morrogh to serve as Vice-Chair, for a one-year term beginning July 1, 2012.
- At the October 10, 2012 meeting, the Board approved the report of SAC Chair Jami St. Clair, which included the SAC's approval of (i) Toxicology's Method Validation for cannabinoid and benzodiazepine analyses, and (ii) the continued review of software obtained by DFS to perform DNA population statistical calculations.
- At the October 10, 2012 meeting, the Board also approved the submission of this Annual Report following review of the completed final report by the Board Chair.

Attachment A

FORENSIC SCIENCE BOARD MEMBERS

- Ms. Caroline D. Juran (Chair) – Term: period in office or employment
Executive Director of the Virginia Board of Pharmacy
- Dr. Leah L. Bush – Term: period in office or employment
Chief Medical Examiner
- Mr. Steven D. Benjamin, Esq. – Term: ending 6/30/2013
Criminal defense attorney having specialized knowledge in the area of forensic sciences
- Jami St, Clair – Term: ending 6/30/15
Member of the Scientific Advisory Committee
- Mr. Garth L. Wheeler – Term: period in office or employment
Director of the Department of Criminal Justice Services
- Mr. Alan Katz, Esq. – Term: period in office or employment
Designee for Attorney General Kenneth T. Cuccinelli, II
- Colonel W. Steven Flaherty – Term: period in office or employment
Superintendent of the State Police
- Ms. Jo Ann Given – Term: ending 6/30/2013
Member of the Scientific Advisory Committee
- Mr. Karl R. Hade – Term: period in office or employment
Executive Secretary of the Supreme Court of Virginia
- Ms. Kristen J. Howard – Term: period in office or employment
Designee of the Chairman of the Virginia State Crime Commission
- The Honorable Richard L. Morris – Term: period in office or employment
Designee of Chairman of the House Committee for Courts of Justice
- Sheriff A.A. Lipka, Jr. – Term: ending 6/30/2013
Member of Law Enforcement
- The Honorable Ryan T. McDougle – Term: period in office or employment
Designee of Chairman of the Senate Committee for Courts of Justice
- Mr. Raymond F. Morrogh, Esq. (Vice-Chair) – Term: ending 6/30/2013
Member of the Virginia Commonwealth's Attorneys Association
- Position unfilled -- Chairman of the Board of the Virginia Institute of Forensic Science and Medicine (VIFSM); VIFSM ceased to exist as of June 30, 2010

Attachment B

SCIENTIFIC ADVISORY COMMITTEE MEMBERS

- Ms. Jami J. St. Clair (Chair) – Term: ending 6/30/2015
Quality Assurance Regulation and Monitoring
- Ms. Jo Ann Given – Term: ending 6/30/2013
Member of the American Society of Crime Laboratory Directors
- Dr. Jose Almirall – Term: ending 6/30/2014
Trace Evidence Scientist
- Dr. John V. Planz – Term: ending 6/30/2015
Population Geneticist
- Dr. John M. Butler – Term: ending 6/30/2013
Molecular Biologist
- Mr. Randall E. Beaty – Term: ending 6/30/2014
Member of the International Association of Chemical Testing
- Dr. D. Christian Hassell – Term: ending 6/30/2015
Director of a Private or Federal Forensic Laboratory
- Mr. Richard Meyers – Term: ending 6/30/2014
Forensic Chemist
- Mr. Pete M. Marone – Term: period in office or employment
Director of the Department of Forensic Science
- Dr. Alphonse Poklis – Term: ending 6/30/2014
Toxicologist certified by the American Board of Forensic Toxicologists
- Mr. Thomas L.G. Price (Vice-Chair) – Term: ending 6/30/2013
Member of the Board of the Association of Firearms and Toolmark Examiners
- Carl A. Sobieralski, Jr – Term: ending 6/30/2015
Forensic Biologist
- Kenneth Zercie – Term: ending 6/30/2015
Member of the Board of the International Association for Identification