

COMMONWEALTH of VIRGINIA

FORENSIC SCIENCE BOARD Vince S. Donoghue, Chair

October 30, 2015

The Honorable S. Chris Jones
Chair, House Committee on Appropriations
P.O. Box 5059
Suffolk, Virginia 23435-0059

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

The Honorable Charles J. Colgan
Co-Chair, Senate Committee on Finance
10660 Aviation Lane
Manassas, Virginia 20110-2701

The Honorable Thomas K. Norment, Jr.
Chair, Virginia State Crime Commission
P.O. Box 6205
Williamsburg, VA 23188

Re: Annual Forensic Science Board Report

Dear Delegate Jones and Senators Stosch, Colgan and Norment:

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 needs;
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 purposes and intent of this chapter; and
6. Any recommendations submitted to the Board or the Director by the Scientific Advisory Committee.

The 2015 Report of the Forensic Science Board concerning these matters is attached.

Please do not hesitate to contact me through the Department of Forensic Science Director's Office if you have any questions or would like additional information.

Sincerely,



Vince S. Donoghue
Chair, Forensic Science Board

Enclosure

cc: The Honorable Brian J. Moran, Secretary of Public Safety and Homeland Security
Victoria H. Cochran, Deputy Secretary of Public Safety and Homeland Security
Members, Forensic Science Board
Linda C. Jackson, Director, Department of Forensic Science
Division of Legislative Automated Systems

FORENSIC SCIENCE BOARD 2015 ANNUAL REPORT

Virginia Code § 9.1-1110(B) requires the Forensic Science Board (FSB) to review and make recommendations by November 1 of each year concerning the following:

1. New major programs and plans for activities of the Department of Forensic Science (DFS) and elimination of programs no longer needed;
2. Policy and priorities in response to agency needs;
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 purposes and intent of this chapter; and
6. Any recommendations submitted to the Board or the Director by the Scientific Advisory Committee.

The Forensic Science Board met at the Department of Forensic Science's Central Laboratory in Richmond on January 7, 2015, May 13, 2015, August 12, 2015, and October 15, 2015. A list of members of the Board is included as Attachment A. Pursuant to Code § 9.1-1110(B), the Board makes the following report.

1. NEW MAJOR PROGRAMS AND PLANS FOR THE ACTIVITIES OF DFS AND THE ELIMINATION OF PROGRAMS NO LONGER NEEDED

Post-Conviction DNA Testing Program and Notification Project¹

At its September 23, 2014 meeting, the Virginia State Crime Commission (VSCC) recommended that DFS retest the cases for each of the convicted suspects whose initial post-conviction DNA testing results were "inconclusive." A result of "inconclusive" means there was insufficient data upon which to draw conclusions. The VSCC recommended that retesting in the "inconclusive" cases be prioritized as follows:

1. Cases where spermatozoa is present and suspect is still incarcerated;
2. Cases where suspect is still incarcerated;
3. Cases where spermatozoa is present and suspect is not still incarcerated; and
4. All other cases.

DFS requested funding to outsource the retesting of the "inconclusive" cases using mini-STR or Y-STR testing because DFS does not conduct mini-STR testing and would not have the resources to conduct Y-STR testing in the 400+ "inconclusive" cases without significant delay to pending cases. The estimated cost was \$3,500 per case, based on an

¹ A detailed history of the Post-Conviction DNA Testing Program and Notification Project can be found in the Forensic Science Board 2014 Annual Report, which is available online at: [http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD3562014/\\$file/RD356.PDF](http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD3562014/$file/RD356.PDF)

average number of samples per case of seven, and a per sample cost of \$500. The Governor included \$150,000 for this testing in his Introduced Budget for FY 2016, and the funding remains in the DFS budget.

DFS identified 421 case files containing evidence that yielded “inconclusive” results. DFS manually pulled the “inconclusive” case files, and staff from the Forensic Biology Section worked overtime to review the original serologist’s notes in each of these case files to ascertain which had sperm/seminal fluid present. As a result of this review, 60 cases with spermatozoa or seminal fluid present were identified. Information on the suspects from these cases was provided to VSCC staff so that a determination could be made as to which, if any, of the suspects in these cases is still incarcerated.

The Board was advised at its January 7, 2015 meeting that the experience of the Innocence Project in handling these Post-Conviction DNA Testing Program cases is that, in more than half of the cases, the DNA testing that was conducted was not probative of guilt or innocence. As a result, the Forensic Science Board requested that its DNA Notification Subcommittee develop recommendations regarding how the 421 “inconclusive” cases should be screened to determine the probative value of testing in these cases. In doing so, the Board added a Commonwealth’s Attorney as a member of the DNA Notification Subcommittee. Mr. Donoghue agreed to serve as the Commonwealth’s Attorney on the Notification Subcommittee. The Executive Director of the VSCC serves as the Chair of the Notification Subcommittee, and the Superintendent of State Police and the criminal defense attorney representative also serve as members of the Subcommittee.

The DNA Notification Subcommittee met on March 16 and April 20, 2015. At the Board’s meeting on May 13, 2015, the Subcommittee recommended, and the Board adopted, the following process to screen the “inconclusive” cases to determine whether additional testing would be probative of the defendant’s guilt or innocence: 1) a legal case file review by representatives from the Mid-Atlantic Innocence Project (MAIP), the Indigent Defense Commission (IDC), and VSCC staff to determine whether retesting the retained evidence in the case file could be probative of the defendant’s guilt or innocence; and 2) a scientific review by DFS DNA staff of those files recommended for retesting during the legal review. For any case where the group conducting the legal review indicates a need for additional information, VSCC staff will contact the Department of Corrections for the presentence report from the case so that the additional information can be used for the legal review and a recommendation as to testing can be ascertained. Cases that are recommended for retesting as a result of the legal and scientific review will be sent for the recommended testing to the private laboratory retained by DFS using the \$150,000 included in the DFS budget for this testing.

There were a total of 421 “inconclusive” cases (involving 490 suspects) that were reviewed. Sixty of the 421 “inconclusive” cases involved evidence containing sperm or seminal fluid; the remaining 361 cases did not contain sperm. The review resulted in 34 “inconclusive” cases that were recommended for additional testing (33 of which were sperm cases), and 386 cases where no further testing was recommended. There is one case requiring some type of follow-up before it can be closed out. Based on the review, it is

anticipated that the \$150,000 provided in the budget should be sufficient to outsource the retesting of all “inconclusive” cases recommended for additional testing.

DFS is in the procurement process for selecting a private laboratory to conduct retesting in the inconclusive cases recommended for additional testing.

The Board was advised at its May 13, 2015 meeting that the VSCC has made the Post-Conviction DNA Testing Program and Notification Project a top priority and agreed to dedicate two staff members to assist with completion of the project. The VSCC staff will manually review the files and confirm the testing and notification status of each listed suspect in each case.

DNA Population Statistical Calculations

DFS continues to use the TrueAllele system on DNA mixture case work to estimate the frequency of a DNA profile and draw conclusions. Over 200 mixture interpretation reports have been issued statewide using this system.

Multiplex Kits for DNA Data Bank

The Department’s DNA Data Bank went online with the new Multiplex Kits and instrumentation in the spring of 2015, which expands from 16 to 24 the DNA areas analyzed for Data Bank samples. All DNA Data Bank examiners have been trained to use the new DNA chemistries and instrumentation. The use of the previous DNA chemistries that examined 16 areas of DNA has been discontinued by the DNA Data Bank.

Multiplex Kits for DNA Case Work

The validation for case work testing of the new Multiplex chemistries and instrumentation that analyzes 24 areas of DNA has begun. The initial validation was started in the Central Laboratory in the summer of 2015 and will begin in the regional laboratories in the fall. All case work staff will also be trained with a transition to the new chemistries and instrumentation expected in the summer of 2016.

DNA Data Bank Expansion Legislation from 2015 General Assembly Session

During the 2015 General Assembly Session, two bills² passed that require sampling, upon conviction, of persons convicted of the following nine additional misdemeanor offenses:

- Violation of protective order (§ 16.1-253.2)
- Stalking (§ 18.2-60.3)
- Violation of stalking protective order (§ 18.2-60.4)
- Infected sexual battery (§ 18.2-67.4:1)

² House Bill 1928 was carried by Delegate Robert B. Bell, and Senate Bill 1187 was carried by Senator Mark D. Obenshain.

- Unauthorized use (§ 18.2-102)
- Unlawful entry (§ 18.2-121)
- Indecent exposure (§ 18.2-387)
- Obscene sexual display (§ 18.2-387.1)
- Resisting arrest (§ 18.2-479.1)

Prior to the addition of the nine misdemeanors on July 1, 2015, the DNA Data Bank statute required sampling of persons convicted of five misdemeanor sex offenses.

The table below reflects the number of misdemeanor samples submitted to or retained by the Data Bank as a result of a qualifying misdemeanor conviction for the most recent quarter prior to enactment of the 2015 Data Bank expansion legislation and for the first quarter after its enactment.

Month in 2015	Misdemeanor Samples
April	5
May	9
June	4
July	28
August	82
September	66

As a result of the addition of the nine new misdemeanor offenses to the DNA Data Bank law, effective July 1, 2015, a Data Bank hit to an offender convicted of a new qualifying misdemeanor has generated a possible investigative lead in a sexual assault case that occurred almost 20 years ago.

Laboratory Information Management System

The Department is working toward implementing a web-based laboratory information management system (LIMS). It is anticipated that the updated LIMS will be implemented by March 31, 2016, three months prior to the server end of life for the current system. Additional features of the system, which will increase customer accessibility by allowing law enforcement to remotely submit Requests for Laboratory Examination and permit DFS to electronically disseminate Certificates of Analysis, are expected to be implemented later in 2016.

Facility Expansion and Renovation

Central Laboratory

Detailed planning money was included in the DFS budget for the expansion/renovation of the Central Laboratory. DFS has been authorized to utilize these funds and partnered with the Department of General Services' project management to select a qualified architectural/engineering firm to perform a parking study and develop drawings for the project. This project will allow the DFS operations currently housed across the street in the Biotech 8 Building to be moved back into the expanded Central Laboratory. This includes the Breath Alcohol and Training Sections, the Director's Office, Human Resources, and Administration and Finance. Additionally, the Office of the Chief Medical Examiner (OCME), which is co-located in the Central Laboratory and the Biotech 8 Building with DFS, will also return all of its operations to the Central Laboratory. DFS worked with the Division of Real Estate Services to obtain an extension of the lease for the space currently used by DFS and the OCME in the Biotech 8 Building.

Western Laboratory

The Western Laboratory in Roanoke opened in 1994 and, by 2008, DFS had outgrown the space. In November 2009, property adjacent to the laboratory was purchased in anticipation of expanding the laboratory. In 2011, the prospect of laboratory expansion was accelerated by the General Assembly with the inclusion of pre-planning funding in the FY 2012-2013 Biennial Budget. Expansion plans were developed and a "contractor at risk" designated. Groundbreaking for the expansion occurred in March of 2014, and an official Groundbreaking Ceremony was held on July 28, 2014. The new 62,000 square feet of space being added to the facility will house the Controlled Substances, Toxicology, Trace Evidence, Evidence Receiving and Administrative Sections of DFS, along with waiting areas and meeting rooms for the Office of the Chief Medical Examiner. Additionally, the facility will have 4,000 square feet on the ground floor designated for three large classrooms and breakout rooms for training. The new portion of the building is currently scheduled to be completed in January of 2016, at which point the existing 54,000 square foot facility will be renovated for increased space designated to the OCME and DFS. This final phase of the project is due to be completed in the summer of 2016.

Service Reductions

As a result of budget reductions that are described in further detail under Section 3 of this report, which begins on page 11, DFS implemented the service reductions described below. Notices regarding each of these policy changes were posted on the DFS website and disseminated to DFS user agencies.

Revised Marijuana Submission Policy

On October 22, 2014, DFS advised that, effective January 1, 2015, it would discontinue the routine analysis of marijuana plant material in simple possession of marijuana cases without a court order. DFS will only accept plant material, suspected to be marijuana, to support a charge of simple possession with a court order as prescribed in Virginia Code § 19.2-188.1(B) or if the result of the field test kit is inconclusive. Code § 19.2-188.1(B) permits a law enforcement officer to testify to the results of any DFS approved marijuana field test regarding whether or not any plant material is marijuana provided the defendant has been given written notice of his right to request a full chemical analysis. If the defendant desires a full chemical analysis of the plant material, he may, by motion filed prior to trial, request a chemical analysis. Upon such motion, the court shall order that DFS perform the analysis.

Trace Evidence Services

Effective November 4, 2014, DFS began restricting the evidence it received for Trace Evidence examinations as follows:

- DFS discontinued providing analysis on improvised explosive devices (I.E.D.s), low explosives, high explosives, etc.;
- DFS limited primer residue examinations to kits collected from suspects in cases that include a gunshot victim;
- DFS stopped accepting hair/fiber evidence requiring extensive searching (e.g., vacuum cleaner bags, bedding, large carpets, etc.) and began requiring the submitting agency to consult with the laboratory prior to submission of any hair/fiber evidence; and
- DFS restricted the breadth of general chemical examinations that would be performed. DFS continues to routinely accept the following types of general chemical evidence: clandestine laboratory precursors, bank dye, pepper spray, tear gas, tapes, adhesives, salt (deer bait) and acids/bases. For other general chemical evidence, DFS began requiring the submitting agency to consult with the laboratory prior to submitting the evidence.

DFS Trace Evidence analytical capabilities remain unaffected for the following: physical and chemical reaction devices (bottle bombs), glass, ignitable liquids (fire debris), paints and polymers, fracture match/physical fits, and vehicle lamp filaments.

Forensic Photography Services

Effective November 4, 2014, DFS discontinued providing prints (and enlargements) of crime scene and autopsy images from digital formats (e.g., images submitted via memory card, compact disc, SD card). DFS continues to prepare poster exhibits as needed for court.

Digital and Multimedia Evidence Services

Effective November 4, 2014, DFS stopped receiving evidence for forensic audio analysis, forensic video analysis, image analysis or comparative analysis. DFS maintained

the ability to perform computer analysis, including mobile devices such as smart phones, tablets, etc. Subsequently, on June 23, 2015, DFS restored its video enhancement analysis capabilities and began accepting evidence for such analysis.

Reporting of NIBIN Associations

Effective July 9, 2015, DFS discontinued its practice of confirming all National Integrated Ballistics Information Network (NIBIN) associations. Instead, DFS now issues a Certificate of Analysis or letter to the appropriate law enforcement agency regarding any potential NIBIN associations. When confirmation is needed to support an investigation, all evidence relevant to the association will need to be resubmitted to DFS by the law enforcement agency. This policy change was implemented to improve efficiency for the Firearms Section.

Archive Case File Review

As a result of the Federal Bureau of Investigation and other state laboratories conducting a review of past microscopic hair comparison cases, DFS requested and received \$188,350 in FY 2016 to begin to review all archived cases from 1973 through 1994 in order to be able to identify cases where microscopic hair examinations were conducted. DFS implemented its laboratory information management system in 1995 so DFS is able to electronically search cases from 1995 forward. Because this project will require DFS to conduct another manual review of archived case files housed at the Library of Virginia, DFS decided the best approach to the review would include the creation of an electronic database of these historical files. Accordingly, the addition to the DFS budget will fund personnel (four wage positions working 30-36 months), equipment (two copiers/scanners) and data storage for this case file review. The wage employees will create an electronic database of case information to include scanned copies of all "Request for Laboratory Examination" forms and Certificates of Analysis from each of the archived case files. This searchable case information and scanned documentation will be able to be uploaded into the upgraded laboratory information management system. There are approximately one million case files to be reviewed and scanned.

2. POLICY AND PRIORITIES IN RESPONSE TO AGENCY NEEDS

Priority: Improving Timeliness

Caseload Data

The caseload data reported in the chart below reflects, for FY 2014 and FY 2015, the total number of cases received statewide by each DFS Section, the total number of cases completed by each Section, and the average case turnaround time (number of days from receipt of evidence in a case by DFS to the release of a Certificate of Analysis) for each Section. The chart also specifies the ending backlog (total number of cases on hand) in each Section as of the end of the respective fiscal years.

Section	Cases Received FY14	Cases Received FY15	Cases Completed (FY14)	Cases Completed (FY15)	Average Case Turnaround Time (FY14)	Average Case Turnaround Time (FY15)	Ending Backlog 6/30/14	Ending Backlog 6/30/15
Controlled Substances	32,297	28,508	30,089	30,218	60	71	6440	4734
Firearms	5,310	5,850	5,260	5,801	45	41	606	660
Forensic Biology (DNA)	4,563	4,290	4,691	4,220	84	94	816	918
Latent Prints (includes DME)	3,200	2,822	3,336	2,834	78	70	558	552
Questioned Documents	323	238	327	258	32	28	29	9
Toxicology	9,716	9,337	9,899	9,438	58	54	1255	1155
Trace Evidence	956	860	975	930	65	68	188	120
Total	56,365	51,905	54,577	53,699	62	67	9,892	8,148

The total number of cases received by the Controlled Substances Section dropped by nearly 12% from FY 2014 to FY 2015. It is likely that this reduction is the result of the revised marijuana submission policy that DFS implemented effective January 1, 2015.

There was a 10% increase in Firearms case submissions from FY 2014 to FY 2015. In early FY 2016, staff from the Bureau of Alcohol Tobacco and Firearms began encouraging Virginia law enforcement agencies to submit all firearms to DFS for analysis. Accordingly, DFS anticipates Firearms submissions to continue to increase in FY 2016. In an attempt to assist with growing Firearms case submissions, DFS discontinued the concurrent confirmation of NIBIN associations.

The Forensic Biology Section saw increased turnaround times in 2015 as a result of increased statistical reporting requirements.

There were decreased submissions in Latent Prints (includes Digital and Multimedia Evidence), Questioned Documents and Trace Evidence from FY 2014 to FY 2015. The Trace and Digital and Multimedia Evidence Sections both reduced the services provided during FY 2015 as a result of budget reductions, which likely contributed to their decreased caseloads. Although the Questioned Documents Section ultimately was not impacted by any budget reductions, the reduction in case submissions to the Section may also be attributable to the fact that the Section was initially slotted for reduction.

Although the turnaround times specified in the chart for the Toxicology Section indicate a decreased turnaround time for FY 2015 over FY 2014, the figure is misleading because it reflects the average turnaround time for all Toxicology cases and is reduced by the large volume of DUI (alcohol) cases that are reported by the Section, which have an average turnaround time of only 33 days. There are longer turnaround times for Toxicology cases from the Office of the Chief Medical Examiner (OCME) and from DUID cases.

The delay in providing toxicology results to the OCME makes it difficult for law enforcement, Commonwealth's Attorneys, and other protective agencies to conduct thorough death investigations in a timely manner, delays the ability of Virginia families to resolve their loved ones affairs, and is jeopardizing the OCME's ability to meet accreditation standards issued by the National Association of Medical Examiners. Due to speedy trial provisions, an average turnaround time of 30 days is needed for DUI cases and 45 days for DUID cases. Due to the focus on OCME cases, DFS is only completing approximately 55% of DUI cases in 30 days and approximately 6% of DUID cases within 45 days.

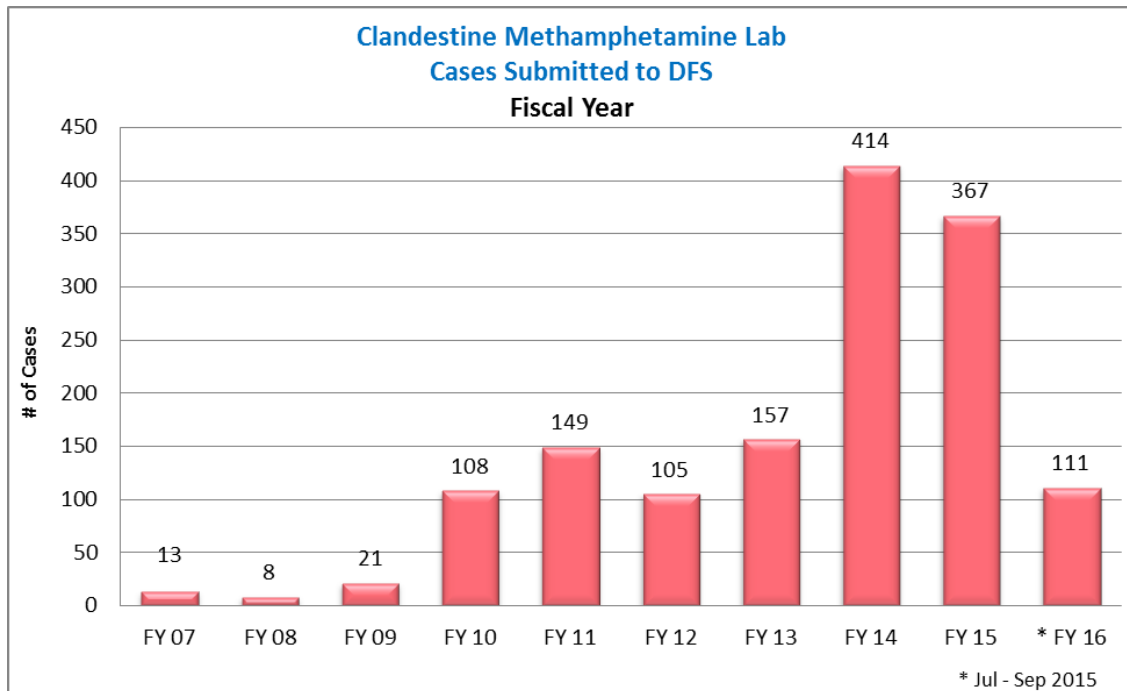
Factors Affecting DFS Workloads and Backlogs

Melendez-Diaz v. Massachusetts

The United States Supreme Court's 2009 decision in the case of *Melendez-Diaz v. Massachusetts* significantly impacted the Department's ability to manage its caseload. In *Melendez-Diaz*, the Court held that the defendant's Sixth Amendment right to confront witnesses against him is violated if the laboratory report is offered into evidence without testimony of the forensic scientist who performed the analysis. The decision had an immediate and measurable impact on criminal trials in Virginia. As reported in prior Forensic Science Board Annual Reports, the number of witness subpoenas received by DFS examiners and the amount of time examiners are required to spend out of the laboratory, on court travel and appearances, have remained dramatically elevated as compared to pre-*Melendez-Diaz* levels. When examiners are required to be out of the laboratory for extended periods of time, they have fewer hours available in the laboratory to perform forensic analyses. The Section that continues to be most acutely affected is Controlled Substances.

Clandestine Methamphetamine Labs

The growth in submissions related to investigations of clandestine methamphetamine laboratories in recent years directly impacts turnaround times as these cases are time consuming because they require more complex analyses to identify the substances present. As illustrated in the chart below, the 414 cases submitted in FY 2014 was a significant jump over FY 2013. Although submissions were slightly down for FY 2015, the 111 cases submitted through the first quarter of FY 2016 potentially reflects further growth in these case submissions for FY 2016.



Ability to Train Qualified Examiners

Extended times are required to recruit, hire, and train qualified scientific staff, which is the reason loss of staff results in increases in case turnaround times. The table below indicates the average training periods for new trainees hired in each discipline.

Section	Average Examiner Training Period
Controlled Substances	11 months
Firearms/Toolmarks	24 months
Forensic Biology (DNA)	12 months
Latent Prints (includes DME)	11 months
Questioned Documents	24 months
Toxicology	12 months
Trace Evidence	12 months

Current examiners conduct the training for new hires. For the full duration of the training period, these examiners must dedicate significant time to working with the trainees which decreases their case output.

Priority: Increase Continuing Educational Opportunities for Staff

DFS continues to emphasize the importance of providing training for its staff. All scientific personnel are strongly encouraged to obtain at least 8 hours of specialized scientific/technical training each year, and all other DFS staff are encouraged to obtain at least 4 hours of training. Trainings are presented on-site to the greatest extent possible to streamline information disseminated to staff in the same Section as well as all supervisory

staff. Additionally, other cost efficient options continue to be explored and utilized. All personnel are on track to attain the minimum training hours by December 31, 2015.

3. GENERAL FISCAL YEAR OPERATIONAL BUDGET AND ANY MAJOR CHANGES IN APPROPRIATED FUNDS

Budget Overview

The Department's annual budget for FY 2016 is:

General Fund Base Budget	38,511,247
Anticipated Adjustments to Base Budget	1,712,992
Non-General Funds	3,048,993
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TOTAL	43,273,232
Less Budget Reductions	(987,080)
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<u>TOTAL ANTICIPATED OPERATING BUDGET</u>	<u>42,286,152</u>

The FSB 2014 Annual Report indicated that, as part of the \$1,142,035 in budget reductions for FY 2015, the Department would be laying off ten full-time employees and one wage employee. As a result of these layoffs, it was reported that services would be reduced in the disciplines of Trace Evidence, Questioned Documents, and Digital and Multimedia Evidence and that photography services would be limited to the preparation of court exhibits for user agencies. Last year's report also reflected that a new Toxicology position provided in the FY 2015 budget would be eliminated and that another six positions would be held open through the end of the Fiscal Year (one position in Latent Prints and five additional positions provided in the FY 2015 budget, three in Forensic Biology and two in Controlled Substances).

Through the budget process at the Department of Planning and Budget and the subsequent General Assembly Session, changes were made to the proposed budget reductions reported in the 2014 Annual Report. The net effect of the reductions implemented for FY 2015 and FY 2016 was the elimination of six filled full-time positions, one filled wage position, three vacant full-time positions, and two vacant wage positions.

Although two Questioned Documents positions were initially slated for reduction, these positions were not abolished, and these services were not reduced. The new Toxicology position reported as being eliminated was restored beginning in FY 2016, and the other six scientist positions that were held open during FY 2015 were filled in FY 2016. Five positions that were abolished in FY 2015 were restored in FY 2016, including two positions in Digital and Multimedia Evidence, which resulted in the restoration of video enhancement services.

The reductions of \$987,080 implemented for FY 2016 are a permanent reduction to the DFS base budget.

Grants

Since the 2014 Annual Report, funding has been available or awarded to DFS under the following grant programs:

FY 13 DNA Backlog Reduction Grant Program – \$990,871 from NIJ to enhance capacity in the Forensic Biology Section. Supports personnel, training and equipment. Grant period ended on May 31, 2015.

FY 13 Paul Coverdell Forensic Science Improvement Program – \$83,582 to DFS from NIJ for training of non-DNA personnel. Grant period ended on June 30, 2015.

FY 14 DNA Capacity Enhancement and Backlog Reduction Grant Program – \$906,457 awarded from NIJ to enhance capacity in the Forensic Biology Section. Supports personnel, training, and equipment. Grant period is October 1, 2014 – September 30, 2016.

FY 14 Paul Coverdell Forensic Science Improvement Program – \$184,994 awarded by NIJ to Virginia (DCJS) for DFS and the OCME. The DFS portion (~\$92,496) is to be used for scientific training of personnel in the Chemistry, Physical Evidence, and Calibration & Training program areas. Grant period was October 1, 2014 to September 30, 2015, but it has been extended through June 30, 2016.

2015 Highway Safety Grant Program – \$190,761 awarded through DMV for Breath Alcohol training and travel costs for law enforcement officers and training for DFS Breath Alcohol personnel. Includes \$37,500 conditionally approved to fund the development of an online database for public access to breath alcohol instrument records. Grant period is October 1, 2014 to September 30, 2015.

Asset Forfeiture One-Time Transfer – \$2,943,000 from the Office of the Attorney General for enhancement of service capacity in the Chemistry program area. For purchases of equipment and maintenance/service agreements. Grant period is May 2014 to April 2016.

FY 15 Paul Coverdell Forensic Science Improvement Program – \$197,409 awarded by NIJ to Virginia (DCJS) for DFS and the OCME. The DFS portion (\$98,704) is to be used for training and continuing education of scientific staff in the Chemistry, Physical Evidence, and Calibration & Training program areas. Grant period is October 1, 2015 to September 30, 2016.

2016 Highway Safety Grant Program – \$220,763, awarded by DMV for Breath Alcohol training and travel costs for law enforcement officers and continuing education for DFS Breath Alcohol personnel. Includes funds to expand the capabilities of the online database for public access to breath alcohol instrument

records, instrument certification information and statistical reports. Grant period is October 1, 2015 – September 30, 2016.

New York County District Attorney’s Office (DANY) Sexual Assault Kit Backlog Elimination Project – \$1,399,989 awarded to the Office of the Attorney General and DFS (co-applicants in the project) to outsource the testing of previously untested sexual assault kits. The DFS portion of the award, \$123,226, will be used for overtime hours for DFS scientists to conduct reviews on DNA profiles received from the contract laboratory, upload all eligible profiles into CODIS, perform DNA testing needed for Data Bank hit confirmations, and prepare all necessary reports. The grant period is October 1, 2015 to September 30, 2017.

4. ACTIONS TO FOSTER AND PROMOTE COORDINATION AND COOPERATION BETWEEN DFS AND THE USER PROGRAMS WHICH ARE SERVED

Conferences, Presentations, and Training

Department staff regularly attend regional meetings and statewide conferences of its user agencies to give presentations on relevant forensic science issues and to be available for feedback and comment on the services that the Department is providing. In 2015, DFS representatives attended statewide conferences for the Virginia Association of Commonwealth’s Attorneys, the Virginia Association of Criminal Defense Lawyers, the Virginia Sheriffs’ Association, the Virginia Court Clerks’ Association (Clerks of Circuit Court), and the Judicial Conference of Virginia for District Courts.

Twice a year, the Department’s Forensic Training Section conducts the Forensic Science Academy (FSA) for selected law enforcement personnel. This nine-week course provides in-depth training in the recognition, collection, preservation, and handling of evidence through classroom instruction by forensic experts, evidence collection demonstrations, and numerous practical exercises in simulated crime scenes. The Forensic Training Section also presents numerous short courses throughout the year on various crime scene investigation subjects such as Homicide Scenes and Advanced Photography. In 2015, the Forensic Training staff transitioned its regional retraining update for FSA graduates to a program that is open to all law enforcement personnel. This program, entitled “Laboratory Capabilities and Update,” allows DFS personnel to communicate evidence receiving guidelines and changes to laboratory services to, as well as receive feedback directly from, the larger law enforcement community. The Virginia Forensic Science Academy Alumni Association 2015 Annual Retraining Seminar was held in August 2015. This seminar is coordinated by the Forensic Training Section and multiple DFS staff participated. Approximately 300 FSA alumni attended this event.

The Department’s Breath Alcohol Section provides maintenance of evidential breath alcohol instruments, responses to legal requests for information, testimony, and training for law enforcement personnel. From November 1, 2014 through October 31, 2015, the Breath Alcohol Section conducted 48 initial breath alcohol operator (3 day) classes and

licensed 798 new operators. The Section also conducted 86 relicensing (1/2 day) sessions and subsequently relicensed 2,542 operators.

Surveys of User Agencies

In 2014, the Department sought input on the content and usage patterns of the DFS Evidence Handling and Laboratory Capabilities Guide (the Guide). The Guide is intended to promote the maximum use of physical evidence and encourage greater utilization of the services of the Department. The objective of the Guide is to provide practical information concerning how DFS can assist in criminal investigations, and procedures for the collection, preservation, and submission of physical evidence, to law enforcement personnel. As a result of the feedback received, in addition to posting the full guide on the DFS website, select portions of the Guide were posted separately with quick links to those sections for easier access. In September 2015, the Guide was updated and DFS posted each section by laboratory discipline for better mobile device compatibility. It may be accessed on the DFS website at: <http://www.dfs.virginia.gov/documentation-publications/evidence-handling-and-laboratory-capabilities-guide/>.

In April 2015, the Department disseminated surveys to the legal and law enforcement communities regarding its Breath Alcohol Section. The legal community survey contained 10 questions with a primary focus on DFS personnel witness testimony and responses to record requests. A total of 236 responses were received (1% Federal, 44% Commonwealth's Attorney, and 55% Defense per self-reporting). Overall, the responses were very favorable with a primary request for enhanced availability of breath alcohol records on the DFS website. The law enforcement community survey contained 12 questions with a primary focus on operator training and instrument support. A total of 1,470 responses were received (7% Sheriff's Office, 26% Police Department, and 67% Virginia State Police per self-reporting). Overall, the responses were very favorable with many asking for web based training options.

Availability of Breath Alcohol Records Online

Beginning June 2014, the Department's Breath Alcohol Section began offering current Breath Alcohol Instrument records on the DFS website. The records available on the website include Certificates of Instrument Accuracy, instrument maintenance history, and quality assurance worksheets with the associated documentation that was generated from August 2013 to the present. The Breath Alcohol Section receives approximately 100 requests for records (both Freedom of Information Act as well as Subpoenas *Duces Tecum*) per week for this information as well as subject specific information. In August 2015, the Breath Alcohol Section improved website access to Breath Alcohol records and expanded the available records to include Subject Test Records. The Subject Test Records are searchable via instrument serial number as all personally identifiable information has been redacted. The DFS website also provides reports of aggregate data such as "Test Results by Subject Age". This project was made possible through a grant administered by the Virginia Department of Motor Vehicles Highway Safety Office.

Physical Evidence Recovery Kit Inventory

The 2014 General Assembly passed Senate Bill 658 ([Chapter 642](#) of the 2014 Acts of Assembly), which required all state and local law enforcement agencies to inventory all Physical Evidence Recovery Kits (PERKs) in their custody that may contain biological evidence that were collected but not submitted to DFS for analysis prior to July 1, 2014. DFS received the inventories from law enforcement agencies and submitted a report of the results of the inventory to the General Assembly on July 1, 2015.

Over 99% (383 of 385) active law enforcement agencies submitted inventories to DFS prior to July 1, 2015. In its July 1 PERK Inventory Report, DFS reported that, of the 383 agencies that submitted inventories, 247 reported no kits, and 136 agencies reported a total of 2,369 PERKs in their custody that met the criteria specified in SB 658. Subsequent to submitting its report to the General Assembly on July 1, 2015, an agency provided DFS with an updated inventory and pointed out that the instructions for completing the inventory form may have been unclear with regard to which PERKs were required to be counted for the inventory. When DFS staff looked back at the materials, they concluded that, if the instructions for completing the form were read in isolation without any of the other information that was disseminated, they could have been misinterpreted as only seeking PERKs for calendar year 2013.

In light of the issue regarding the inventory form instructions, DFS staff reviewed all of the inventories and directly contacted every agency that only reported kits for CY2013 to see if they were under the misperception that they were only to count kits for CY2013. DFS also directly contacted a number of the 247 agencies that reported no kits on their inventories to confirm they had no untested kits at all in their custody and were not just reporting that they had no kits for CY2013. After identifying several additional agencies that indicated they needed to update their inventories, DFS sent an email out to the agency contacts listed on the inventory for the remaining 383 reporting agencies that had not been directly contacted to advise of the potential confusion with the instructions and ask that they review their inventory, revise it, if needed, and return any updates to DFS by Monday, October 5th.

As of October 23, 2015, DFS had received updated inventories from 18 agencies, and there were 141 agencies reporting a total of 2,902 untested PERKs. DFS will be submitting a revised inventory report to the General Assembly once all of the data from the updated inventories has been compiled and reviewed.

5. RULES AND REGULATIONS NECESSARY TO CARRY OUT THE PURPOSES AND INTENT OF CHAPTER 11 OF TITLE 9.1 OF THE CODE OF VIRGINIA (DFS)

Regulations

During the 2015 Session, the General Assembly passed House Bill 1578 which amended Virginia Code § 19.2-310.2 to require the Virginia State Police to seek

confirmation from the DNA Data Bank that an individual required to register with the Sex Offender and Crimes Against Minors Registry had a sample for DNA analysis submitted to the Data Bank. The new law required an amendment to the *DNA Data Bank Regulations* (6 VAC 40-60-50) to add the Department of State Police as one of the agencies permitted secure electronic exchange of data with the DNA Data Bank, enabling the State Police to electronically verify receipt of samples from sex offender registrants.

The Board approved the proposed revision at its meeting on May 13, 2015. The Office of the Attorney General determined the proposed regulation to be exempt from the Administrative Process Act, pursuant to § 2.2-4006(A)(4)(a) as the amendment was necessary to conform the regulation to changes to Virginia Code § 19.2-310.2. The amendment to the *DNA Data Bank Regulations* (6 VAC 40-60-50) was published in the *Virginia Register of Regulations* on August 24, 2015 and became effective on September 23, 2015.

6. ANY RECOMMENDATIONS SUBMITTED TO THE FORENSIC SCIENCE BOARD OR THE DIRECTOR BY THE SCIENTIFIC ADVISORY COMMITTEE

The Scientific Advisory Committee met at the DFS Central Laboratory in Richmond on May 12, 2015 and October 16, 2015. A list of members of the Scientific Advisory Committee is included as Attachment B.

Scientific Advisory Committee (SAC) Recommendations/Actions in 2015

- At its May 2015 meeting, the Toxicology Subcommittee advised that it had completed and closed its review of the portion of the Toxicology Procedure Manual addressing the new methods implemented by the Toxicology Section for identification and quantitation of amphetamines and anti-epileptic drugs.
- A new Trace Evidence Subcommittee was created and will be tasked with reviewing the validation of the Laser Induced Breakdown Spectroscopy method once it is completed by the Department.
- The Forensic Biology (DNA) Subcommittee was provided the validation and laboratory procedures for the new Powerplex Fusion (Multiplex) DNA kits and the new 3500 Genetic Analyzer instruments that are being used with the Powerplex Fusion kits in the DNA Data Bank.

Attachment A

FORENSIC SCIENCE BOARD MEMBERS*

(as of October 30, 2015)

- **Colonel W. Steven Flaherty** – Term: period in office or employment
Superintendent of the Virginia State Police
- **Francine C. Ecker** – Term: period in office or employment
Director of the Department of Criminal Justice Services
- **William T. Gormley, M.D.** – Term: period in office or employment
Chief Medical Examiner
- **Caroline D. Juran**– Term: period in office or employment
Executive Director of the Virginia Board of Pharmacy
- **James F. Entas, Esq.** – Term: period in office or employment
Designee of Attorney General Mark R. Herring
- **Karl R. Hade** – Term: period in office or employment
Executive Secretary of the Supreme Court of Virginia
- **Kristen J. Howard** – Term: period in office or employment
Designee of the Chair of the Virginia State Crime Commission
- **The Honorable Vince Donoghue (Chair)** – Term: period in office or employment
Designee of the Co-Chairs of the Senate Committee for Courts of Justice
- **Delegate Rick Morris** – Term: period in office or employment
Designee of the Chair of the House Committee for Courts of Justice
- **Jo Ann Given** – Term: designated by Scientific Advisory Committee Chair
Member of the Scientific Advisory Committee (SAC) Chosen by SAC Chair
- **Alphonse Poklis, Ph.D.** – Term: designated by Scientific Advisory Committee Chair
Member of the Scientific Advisory Committee Chosen by SAC Chair
- **Sheriff A. A. Lipa, Jr.** – Term: ending 6/30/2017
Governor Appointee – Member of Law Enforcement
- **The Honorable Claiborne Stokes** – Term: ending 6/30/2017
Governor Appointee – Member of the Virginia Commonwealth’s Attorneys Association
- **David A.C. Long, Esq. (Vice-Chair)** – Term: ending 6/30/2017
Governor Appointee – Criminal defense attorney with special knowledge in the area of forensic sciences

*An additional seat on the Board remains unfilled as it was designated for the Chairman of the Board of the Virginia Institute of Forensic Science and Medicine or his designee, and the Virginia Institute of Forensic Science and Medicine is no longer in existence.

Attachment B

SCIENTIFIC ADVISORY COMMITTEE MEMBERS

(as of October 30, 2015)

- **Linda C. Jackson** – Term: period in office or employment
Director of the Department of Forensic Science
- **Les Edinboro, Ph.D.** – Term: ending 6/30/2019
Governor Appointee – Director of a private or federal forensic laboratory located in the Commonwealth
- **Jami St. Clair** – Term: ending 6/30/2019
Governor Appointee – Scientist or other person with education, training or experience in laboratory standards or quality assurance regulation and monitoring
- **Robin W. Cotton, Ph.D.** – Term: ending 6/30/2017
Governor Appointee – Molecular Biologist
- **George C. Maha, Ph.D.** – Term: ending 6/30/2019
Governor Appointee – Population Geneticist
- **Richard P. Meyers (Chair)**– Term: ending 6/30/2018
Governor Appointee – Forensic Chemist
- **Carl Sobieralski** – Term: ending 6/30/2019
Governor Appointee – Forensic Biologist
- **Maureen C. Bottrell** – Term: ending 6/30/2018
Governor Appointee – Trace Evidence Scientist
- **Alphonse Poklis, Ph.D.** – Term: ending 6/30/2018
Governor Appointee – Toxicologist certified by the American Board of Forensic Toxicologists
- **Kenneth Zercie (Vice-Chair)**– Term: ending 6/30/2019
Governor Appointee – Member of the Board of the International Association for Identification
- **Travis Spinder** – Term: ending 6/30/2017
Governor Appointee – Member of the Board of the Association of Firearms and Toolmark Examiners
- **Randall E. Beaty** – Term: ending 6/30/2018
Governor Appointee – Member of the International Association for Chemical Testing
- **Jo Ann Given** – Term: ending 6/30/2017
Governor Appointee – Member of the American Society Crime Laboratory Directors