



COMMONWEALTH of VIRGINIA

FORENSIC SCIENCE BOARD

Maggie A. DeBoard, Chair

October 28, 2022

The Honorable Barry D. Knight
Chair, House Committee on Appropriations
1852 Mill Landing Road
Virginia Beach, Virginia 23457

The Honorable Janet D. Howell
Co-Chair, Senate Committee on Finance and Appropriations
P.O. Box 2608
Reston, Virginia 20195-0608

The Honorable George L. Barker
Co-Chair, Senate Committee on Finance and Appropriations
P.O. Box 10527
Alexandria, Virginia 22310

The Honorable John S. Edwards
Chair, Virginia State Crime Commission
P.O. Box 1179
Roanoke, Virginia 24006-1179

Re: 2022 Annual Forensic Science Board Report

Dear Delegate Knight, Senator Howell, Senator Barker and Senator Edwards:

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 items 1 through 6 below. *Chapter 473 of the 2019 Virginia Acts of Assembly* requires that information about use of the Physical Evidence Recovery Kit Tracking System be included in the Forensic Science Board's annual report. Accordingly, this report is broken out into the following sections:

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; and
7. Information about use of the Physical Evidence Recovery Kit Tracking System.

The 2022 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,



Chair, Forensic Science Board

Enclosure

cc: The Honorable Robert Mosier, Secretary of Public Safety and Homeland Security
Maggie Cleary, 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 2022 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 items 1 through 6 below. Chapter 473 of the 2019 Acts of Assembly requires that information about use of the Physical Evidence Recovery Kit (PERK) Tracking System also be included in the Forensic Science Board's Annual Report. Accordingly, this Report is broken out into the following seven sections:

1. New major programs and plans for the activities of the Department of Forensic Science ("DFS" or "the Department") 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 DFS and the user programs which are served;
5. Rules and regulations necessary to carry out the purposes and intent of Chapter 11 of Title 9.1 of the Code of Virginia;
6. Any recommendations submitted to the Board or the Director by the Scientific Advisory Committee; and
7. Use of the Physical Evidence Recovery Kit Tracking System.

The Forensic Science Board met in person at the DFS Central Laboratory in Richmond on January 4, 2022, April 21, 2022, July 13, 2022 and October 19, 2022. A list of members of the Board is included as Attachment A.

Pursuant to Code § 9.1-1110(B) and Chapter 473 of the 2019 Acts of Assembly, the Board makes this report.

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

DFS Accreditation Through ANSI National Accreditation Board (ANAB)

The Department is currently accredited by the ANSI National Accreditation Board (ANAB). DFS was initially accredited in 1989 through the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB), which merged with ANAB in 2016.

Each DFS regional laboratory is accredited through ANAB as a testing laboratory, and the Breath Alcohol Section is accredited as a calibration laboratory.

DFS is on a four-year accreditation cycle and was reassessed by ANAB in 2022. This is part of a process of continued oversight and examines conformance to hundreds of criteria specified in the International Standard ISO/IEC 17025 (General requirements for the competence of testing and calibration laboratories), ANAB's Forensic Science Testing and Calibration Laboratories Accreditation Requirements, the FBI Quality Assurance Standards for Forensic DNA Testing Laboratories, and the FBI Quality Assurance Standards for DNA Databasing Laboratories.

During the week of June 6, 2022, a full on-site assessment was completed by an accreditation team of industry experts, and ANAB notified DFS on August 24, 2022 that its accreditation was renewed.

Additional information about the Department's accreditation, including Accreditation Certificates and Scope documents, can be found on the DFS website at: <http://www.dfs.virginia.gov/about-dfs/accreditation/accreditationdocumentation/>

Central Laboratory Facility Project

In 2014, the Department was authorized to begin space programming and schematic design work for the renovation and expansion of the Central Laboratory facility (the Biotech 2 building) for DFS and the Office of the Chief Medical Examiner (OCME), which is co-located in the Central Laboratory with the Department. Currently, the agencies together lease approximately 25,000 square feet of space in the Biotech 8 Building, which is across the street from the Central Laboratory.

In 2018, after it was determined that the current location would not meet current needs or allow for future expansion, the General Assembly amended the budget language to change the scope of work for the project to permit DFS to explore building a new facility at another location. In December 2019, DFS acquired 24 acres of land in Hanover County for the Central Laboratory project.

The Conceptual Design for the new facility was completed in February 2020. The Schematic Design process, in which the internal and external features become more defined and detailed (i.e., individual room configuration, planning of where windows, walls, doors and hallways are located, as well as some utilities and mechanical systems preplanning), was completed in September 2020.

The Preliminary Design drawings for the project, which add substantial detail to the plans, including mechanical layout, interior and exterior finishes, and laboratory casework design, were approved in April 2021. Because the project transitioned from a renovation/expansion of the existing Central Laboratory to construction of an entirely new facility, the budget for the project needed to be re-evaluated once the preliminary drawings were approved. DFS received a funding recommendation from the Department of General Services' Division of Engineering & Buildings in April 2021 and has submitted the project for funding approval through the capital project pool process.

Construction (working) drawings for the project were completed and the project received a construction permit in June 2022 from the Department of General Services' Division of Engineering & Buildings. Final funding for the project with escalation costs was approved in October 2022, and a ground-breaking ceremony is anticipated in late 2022 or early 2023. The construction process is projected to take approximately three years to complete.

Service Area Activities

New Forensic Biology Methods and Software

The STRmix probabilistic genotyping software system has been implemented statewide. This software assists DNA examiners in quantitatively estimating the strength of an association of a person of interest's DNA profile with an item of evidence. The latest version of this software program is in the process of being validated.

Through a DNA research grant, DFS has continued work on a project to increase the efficiency of spermatozoa DNA extractions through automation employing robotic platforms commonly used in forensic laboratories. This type of DNA extraction is used routinely in analyzing sexual assault cases and includes a number of manual steps, which, when automated, will lead to an increase in efficiency in testing these types of cases. The grant project is in its final stages and additional performance testing and validation must be conducted prior to implementation for casework which is anticipated in 2023.

Additional validation projects underway in the Forensic Biology Section include the testing of a new DNA quantitation system and implementing new thermal cyclers statewide which will replace the current systems in use after examiners have completed additional training on these changes. The Section is also evaluating new Y-STR testing chemistries to replace the current ones being used. This system will examine more areas of Y chromosome which will provide increased discrimination between male donors. A new procedure and workflow is being implemented for known reference samples. This will increase the efficiency in which DNA profiles are developed from these samples and should

also result in cost saving for the section. A small punch will be taken from the sample and placed in a tube. The sample will then be placed in a thermal cycler where DNA will be extracted from the sample and concurrently the DNA will be copied. This will reduce the need to run the samples on robotics and eliminate DNA quantitation for these samples. This will free additional sample space on the robotic platforms which can then be used for additional evidence sample processing.

The DNA Data Bank implemented a new DNA Data Bank Sample Tracking System (DBSATS) that became operational on July 1, 2022. Data Bank samples are mailed or hand delivered to DFS by the collecting agency. Previously, sample information was filled out on paper forms, which accompanied the submission. The new system has a module to allow user agencies to log on and electronically fill out submission information. The sample submission process remains the same, but the samples are joined with the corresponding electronic record upon receipt by DFS. This makes the sample accessioning process more efficient with less data entry for laboratory staff, as well as less handwriting interpretation necessary from the written forms. The software module also allows user agencies to securely search to see if a sample is already on file from the individual to minimize duplicate sample submissions. Pursuant to Chapters 41 and 42 of the 2022 Acts of Assembly, DBSATS replaced the Sample Tracking System application previously accessed through the Virginia Compensation Board's Local Inmate Data System (LIDS).

New Toxicology Methods

In 2022, the Chemistry Research Section validated several methods for implementation in the Toxicology Section. Ephedrine was added to the Amphetamines, Phentermine, and Designer Drugs method which allows for the independent reporting of ephedrine and pseudoephedrine. They also completed the validation to add etizolam quantitatively to the existing Benzodiazepines method. Further, additional experiments as recommended by the Scientific Advisory Committee for the previously validated Miscellaneous Basic Drug Quantitation method were conducted.

The Chemistry Research Section has also conducted extensive development on the methodology to separate, detect, and quantify cannabinoids in biological samples. When completed, this methodology will allow for the separation of various isomers of tetrahydrocannabinol (THC). Other work has been focused on alternative blank matrices (horse blood) and the investigation of a screening technology using quadrupole time-of-flight mass spectrometry.

New Controlled Substance Methods

Currently the Department can identify whether cannabinoids are present in an edible product but cannot quantify the amount. DFS is currently considering developing and validating an internal method for quantification of delta-9-tetrahydrocannabinol for edibles and is in the process of selecting a provider of outsourcing services as an interim option.

Pursuant to 6 VAC40-30, the Department has received its first request to evaluate a presumptive mobile instrument intended to determine whether a substance is a controlled substance or an imitation controlled substance, as defined in Va. Code § 18.2-247, or marijuana as defined in Va. Code §§ 4.1-600 and 18.2-247. The evaluation process is proceeding. Further, the Department sent out letters to all vendors of the chemical field tests indicating that all currently approved chemical field tests will be re-evaluated.

Trace Evidence Alignment with National Standards

The Trace Evidence Section continues to make revisions to its Standard Operating Procedures to further align with national standards. The changes included classifying the entire ignitable reference collection to align with published standards.

Historical (Archived) Case File Review Project

The Department began its Historical or Archived Case File Review Project after obtaining funding in FY16. Through the project, an electronic database of archived case file information is being created that includes scanned copies of all Certificates of Analysis and available case information (e.g., the jurisdiction of the offense, the investigating agency, victim and suspect names, date evidence received, type of examination, and examiner names). The database of archived case files will include cases from 1973 through 1994. DFS implemented a Laboratory Information Management System (LIMS) in 1995 so DFS is already able to electronically search cases from 1995 forward using its LIMS.

The Department has seven wage positions assigned to the project, each eligible to work up to 29 hours per week. As of September 30, 2022, over 292,000 of the estimated 1,000,000 archived case files covering the relevant period have been entered into the database. This searchable database of case information and scanned documentation ultimately will be integrated with the Department's LIMS.

Microscopic Hair Comparison Case Review

In 2016, the Board created a Microscopic Hair Comparison Case Review Subcommittee, which developed a process for the initial screening of DFS's microscopic hair comparison cases and for the review of transcripts in cases with convictions. A Review Team, consisting of two attorneys (i.e., one defense attorney and one prosecutor) and one DFS scientist with experience as a hair examiner, conducts reviews of the transcripts and makes recommendations to the Subcommittee regarding whether notification to the parties is appropriate in each case.

The Department has continued its work identifying microscopic hair examination cases as part of its Historical Case File Review. For cases determined to include positive, probative hair associations, the Department confirms conviction information for the cases and seeks out transcripts or transcript substitutes, where appropriate, for review.

In January 2022, the Microscopic Hair Comparison Case Review Subcommittee met to review recommendations made by the Review Team regarding five transcripts. Notifications were made by the Department in two of those cases as indicated by the Subcommittee. Additional meetings of the Review Team and Subcommittee will be scheduled when additional transcripts are identified for their review.

2. POLICY AND PRIORITIES IN RESPONSE TO AGENCY NEEDS

Improving Timeliness

Caseload Data

The caseload data reported in the table below reflects, for FY21 and FY22, the total number of case submissions statewide for each DFS testing section, the ending backlog (total number of cases on hand) in each section as of the end of the respective fiscal years, and the average case turnaround time (number of days from receipt of evidence in a case by DFS to the release of the Certificate of Analysis) for each section. The table also specifies the percentage change for each category, by section, between the two fiscal years.

Section	Case Submissions			Backlog			Avg. Turnaround Time for Cases Completed (days)		
	FY21	FY22	% Change	As of 6/30/21	As of 6/30/22	% Change	FY21	FY22	% Change
Controlled Substances	27,111	23,997	-11%	1,826	1,986	9%	46	26	-43%
Digital & Multimedia Evidence	178	212	19%	75	46	-39%	216	122	-44%
Firearms & Toolmarks	8,169	6,314	-23%	2,646	1,798	-32%	104	132	27%
Forensic Biology (DNA)	6,430	6,450	0%	2,065	2,252	9%	117	131	12%
Latent Print & Impressions	2,196	2,143	-2%	413	365	-12%	119	77	-35%
Toxicology	11,384	9,883*	-13%	1,603	1,300	-19%	49	51	4%
Trace Evidence	714	702	-2%	161	159	-1%	63	83	32%

* This does not include the cases the OCME outsourced directly to a private laboratory. See page 9.

The table below presents, for each testing discipline, the ending backlog as of September 30, 2022, and the average turnaround time for cases completed in September 2022.

Discipline/Section	Ending Backlog As of 9/30/2022	Average TAT (in days) September 2022
Controlled Substances	2,256	33
Digital & Multimedia Evidence	47	76
Firearms & Toolmarks	1,582	129
Forensic Biology (DNA)	2,185	150
Latent Prints & Impressions	373	59
Toxicology	1,328	46
Trace Evidence	117	113

The Controlled Substances Section continues to see reduced case submissions since the start of the pandemic. This has enabled the Section to reduce its turnaround times in FY22 by 43%. This is on top of a 62% reduction in turnaround times from FY20 to FY21. In FY20 the Section had a 119 day average turnaround time and a 26 day average in FY22.

As a result of the lower submissions and turnaround times, the Department reallocated four of the Controlled Substances' positions it received in FY19 to areas in the agency where they are more urgently needed. Additionally, Controlled Substances Section examiners have been cross-trained and continue to assist other sections. This will allow the Department to maintain the ability to respond to a return in Controlled Substances case submissions, which has occurred in other states.

The Toxicology Section experienced an increase in backlogs and resulting turnaround times in FY21 due to an increase in case submissions. The FY22 case submissions decreased 13% from FY21. However, the decrease in submissions is due, in part, to outsourcing cases received from the Office of the Chief Medical Examiner (OCME) to a private laboratory. The OCME's cases had increased due to drug overdose deaths. In FY22, the Toxicology Section reduced its backlog by 19% with a slight increase in turnaround times (4%).

The Firearms Section saw a significant decrease in submissions in FY22 (-23%). This decrease followed two years of case submission increases 13% (FY20 to FY21) and 9% (FY19 to FY20). The Section was able to reduce its backlog by 32% in FY22. The reduction is due, in part, to a number of local law enforcement agencies now having the capability of examining cartridge casing evidence and seized crime guns and submitting information into the National Integrated Ballistic Information Network (NIBIN). NIBIN cases are less time consuming, however, and due to continued staffing issues the turnaround time for cases completed in FY22 increased by 27%. In 2021, three reallocated positions were moved to the Firearms Section. However, the training period for new firearms examiners is 18 - 24 months so there will be a lag before the Section's testing capacity is increased after all of the vacant positions are filled.

Pandemic Impact on Breath Alcohol Tests Administered

Based on data downloaded from evidential breath test instruments statewide, the number of breath tests performed dropped significantly beginning in March 2020 as a result of the pandemic. The table below shows the number of tests performed by month comparing FY19 through FY22, as well as the percentage change for each month. The overall number of breath tests per month continues to be below prepandemic levels. However, the comparison of FY21 to FY22 demonstrates a plateau in the number of evidential breath alcohol tests conducted.

Tests by Month	FY19	FY20	FY21	FY22	% Change FY19 - 20	% Change FY20 - 21	% Change FY21 - 22
July	1,977	1,999	1,538	1,478	+1.1%	-23.1%	-3.9%
August	2,011	2,141	1,647	1,553	+6.4%	-23.1%	-5.7%
September	2,088	1,988	1,604	1,569	-4.8%	-19.3%	-2.2%
October	1,912	1,899	1,667	1,362	-0.7%	-12.2%	-18.3%
November	1,920	2,207	1,624	1,318	+14.9%	-26.4%	-18.8%
December	2,237	2,073	1,369	1,353	-7.3%	-34.0%	-1.1%
January	1,781	1,863	1,432	1,388	+4.6%	-23.1%	-3.1%
February	1,868	2,026	1,362	1,530	+8.5%	-32.8%	+12.3%
March	2,309	1,630	1,732	1,750	-29.4%	+6.3%	+1.0%
April	1,841	903	1,362	1,711	-51.0%	+50.8%	+25.6%
May	2,144	1,449	1,693	1,675	-32.4%	+16.8%	-1.1%
June	2,094	1,394	1,478	1,374	-33.4%	+6.0%	-7.0%
Overall	24,102	21,572	18,508	18,061	-10.5%	-14.20%	-2.4%

Factors Affecting DFS Workloads and Backlogs

Outsourced Testing of OCME Toxicology Cases

The Office of the Chief Medical Examiner (OCME) maintains accreditation through the National Association of Medical Examiners (NAME). NAME requires that 90% of all toxicology testing be completed within 90 days. Further, the OCME is finding it difficult to meet the NAME requirement of completing 90% of autopsy cases within 90 days due in great part to the DFS Toxicology Section's insufficient testing capacity.

In light of increased turnaround times in the Toxicology Section, DFS entered into a memorandum of understanding with the OCME in January 2021 to allow the OCME Central District to outsource cases to a private laboratory as DFS works to increase capacity. During FY22, DFS paid for approximately 1,500 outsourced cases originating from the Central, Eastern, and Western laboratories. Only cases from the Eastern and Western laboratories continue to be outsourced.

New Toxicology Positions for FY23

The Department received eight new positions for the Toxicology Section for FY23: four Forensic Scientists and four Toxicologists. In addition to some preexisting vacancies, these new positions are in the process of being hired and trained. As well as addressing the increased volume of OCME cases, these positions were necessary due to changes DFS is

making in general analytical protocols for Driving Under the Influence of Alcohol or Drug cases (DUI/DUID) that will take effect on January 1, 2023.

Currently, the DUI/DUID protocols are designed to identify alcohol and drugs that can impair driving using two levels of testing: alcohol and impairing drugs. Once potentially impairing levels of alcohol or drugs have been identified, the testing may be stopped and a Certificate of Analysis generated. Exceptions may be necessary due to customer requests for additional testing. The first level of testing is a blood alcohol concentration (BAC) determination. If the BAC is equal or greater than 0.100% by weight by volume testing is stopped and a Certificate of Analysis is issued. If the BAC is less than 0.100% by weight by volume, an immunoassay screen is completed to determine if any drug is potentially present and further analysis as appropriate is conducted.

Beginning January 1, 2023, all samples with a BAC equal or greater than 0.100% by weight by volume will also be analyzed for tetrahydrocannabinol (THC). As is current practice, customer requests for additional testing may be made as well.

DNA Case Redistribution

The Department identified inequivalent DNA caseloads and associated turnaround times among its four regional laboratories. In April 2022, the Western Laboratory averaged a 220 day turnaround time while the Eastern Laboratory experienced a 47 day average. In order to normalize the DNA turnaround times, DFS began redistributing portions of its DNA case backlog from its Northern and Western laboratories to the Central and Eastern laboratories. It is anticipated that these transfers will occur for the remainder of 2022.

Subpoenas and Court Appearances

When examiners are out of the laboratory for court appearances, they have fewer hours available to perform forensic analyses. Controlled Substances and Toxicology are the two sections that receive the largest volume of subpoenas, and Toxicology makes the most court appearances. As a result of the COVID pandemic, the Department saw a reduction in both the number of subpoenas received and associated court appearances, which provided examiners with additional time in the laboratory.

In FY22, there was a 15% increase in the number of court appearances compared to FY21. Over the same period of time, however, the number of days away from the laboratory decreased from 1,226 to 874, a 29% reduction. The reason for this is unclear. Possible reasons include increased use of video testimony or the implementation of “DUI Days” in many courts. “DUI Days” refers to the practice of courts scheduling cases requiring

DFS Toxicologists on the same docket to reduce the travel time associated with court appearances. Further, the Toxicology Section experienced staffing vacancies resulting in fewer toxicologists appearing in court.

Appearance Year	Days Away	# of subpoenas	# of appearances
FY19	1,294	17,855	4,090
FY20	887	15,917	3,130
FY21	1,226	14,678	4,198
FY22	874	17,124	4,844

Ability to Hire and Train Qualified Examiners

The demand for trained, experienced examiners has exceeded the supply for many years. In order to fill positions with limited qualified applicants, DFS hires and trains individuals with the necessary educational credentials, but without the practical experience. The table below reflects the average length of the training for new scientists hired as trainees in each discipline. The length of training for scientists who come to DFS as previously “qualified” in another laboratory system should be reduced.

Section	Average Examiner Training Period
Breath Alcohol	12 months
Controlled Substances	10 months
Digital & Multimedia Evidence	12 months
Firearms & Toolmarks	6 months (NIBIN Forensic Scientists) 24 months (Firearms & Toolmarks Forensic Scientists)
Forensic Biology (DNA)	12 months
Latent Prints & Impressions	12 months (Latent Prints Forensic Scientists) 12 months (Impressions Forensic Scientists)
Toxicology	12 months (Forensic Scientists) 18 months (Toxicologists)
Trace Evidence	12 months

Current examiners conduct the training for new hires and must dedicate significant time to working with the trainees, which results in decreased case output for the examiners conducting the training.

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

Budget Overview

The Department's annual budget for FY23 is:

General Fund Base Budget	\$53,325,654
Technical Adjustments to Base Budget	\$838,076
Additions to Base Budget	\$ 2,283,160
<u>Non-General Funds</u>	<u>\$2,680,488</u>
<u>TOTAL OPERATING BUDGET</u>	<u>\$59,127,378</u>

The "Additions to Base Budget" include \$641,200 for four Toxicologists, \$1,535,400 for five Forensic Scientists and associated equipment and supply costs for the Toxicology Section, and \$106,560 for one additional Trainer to teach the Department's Forensic Science Academy.

Grant Awards

During the period of October 1, 2021 through September 30, 2022, funding was awarded to DFS under the following grant programs:

FY21 Paul Coverdell Forensic Science Improvement Program – \$518,533 was awarded by the Bureau of Justice Assistance (BJA) to the Virginia Department of Criminal Justice Services (DCJS) as the State Administering Agency. DCJS provided the funds equally to DFS and the Office of the Chief Medical Examiner (OCME) via subawards. The DFS portion (\$259,226) is for training and continuing education of scientific staff in the Chemistry, Physical Evidence, and Toxicology program areas. In addition, funding will support a part-time LIMS Customer Coordinator position that will be responsible for system testing, preparation of training materials, provision of customer training, customer password management, and support for other LIMS projects focused on reduction of paper records. The grant period for the DFS subaward is January 1, 2022 – June 30, 2023.

FY21 DNA Capacity Enhancement and Backlog Reduction Grant – \$1,743,265 was awarded by BJA to enhance capacity in the Forensic Biology Section. The funds are to be used to support personnel, training, and supplies. The grant period is October 1, 2021 – September 30, 2023.

Opioid Joint Project (OCME and DFS) – Overdose Data to Action Project Continuation – DFS received funds from the OCME in 2019 to support additional personnel in DFS to improve both the timeliness and comprehensiveness of toxicological studies in deaths suspected as opioid overdoses. This continuation grant fully funded the project for a fourth year, at the same level of \$164,807, for the same activities. The new award period is September 1, 2022 – August 31, 2023.

Byrne Justice Assistance Grant (JAG) – via a memorandum of understanding with DCJS for FY 2022-2024 – \$45,407 was awarded for each fiscal year to DFS by DCJS to maintain the increased capacity in the Forensic Training Section that was realized with the FY18 grant project. Funds will be used to retain the part-time forensic trainer position and to purchase supplies needed for a third (summer) session of the Forensic Science Academy. The new period of performance is July 1, 2021 – June 30, 2024.

2022 Highway Safety Grant Program – \$ 278,055 in federal funds awarded by DMV for the DFS Breath Alcohol Section. Funding is provided for reimbursement of travel costs for law enforcement officers, supplies needed for breath alcohol classes, continuing education for DFS Breath Alcohol personnel, and the retention of the grant-funded Breath Alcohol Forensic Scientist position. The award requires an in-kind match of \$69,514. The grant period is October 1, 2021 – September 30, 2022.

2022 Highway Safety Grant Program (TREDS Project) – \$293,317 was awarded to DFS under its TREDS (Traffic Records Electronic Data System) Program. The project goal is to decrease the turnaround time of data from the OCME to DMV in cases involving motor vehicle accident fatalities. DFS received funds to retain two part-time FLS II positions and hire six full-time FLS III positions to assist in the Toxicology Sections statewide to increase capacity. The grant period is October 1, 2021– September 30, 2022.

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

Notices Sent to DFS User Agencies

Policy Notices

Resumption of DUI/DUID Kit Supply

On October 17, 2022, the Department sent notice to its user agencies that it had secured 2,000 DUI/DUID kits since the September 14, 2022 notification concerning the nationwide shortage of blood specimen collection tubes. Requests for kits from user agencies will be filled on an as-needed basis.

Impact of Short Supply of Blood Specimen Tubes for DUI/DUID Kits

On September 14, 2022, the Department sent notice to its user agencies that there was a significant interruption nationwide in the supply of blood specimen collection tubes used to collect blood samples from individuals believed to be impaired and under the influence of alcohol and/or drugs. As a result of the shortage, DFS was restricting the number of kits it regularly distributed to law enforcement agencies.

Updated Submission Policy for Cannabis sativa Plant Material

On July 1, 2022, the Department sent a Notice of DFS Policy Change to its customers in response to language in the state budget (Chapters 1 and 2 of the 2022 Acts of Assembly, Special Session I) that established two new criminal offenses for possession of marijuana in public. Possession of more than 4 ounces of marijuana in public became a Class 3 misdemeanor and a second or subsequent offense became a Class 2 misdemeanor. As a result, DFS amended the submission guidelines for these new offenses.

Revised Packaging Requirements for Submissions of Powdered Substances

On June 7, 2022, the Department sent a Notice of DFS Policy Change to its customers advising that all suspected controlled substances in powder form must be double bagged in plastic as an increased safety measure.

Changes to Marijuana Field Test Regulatory Approval and Updated Submission Policy for Cannabis sativa Plant Material

On April 12, 2022, the Department sent a Notice of DFS Policy Change to its customers advising that because of changes to the definition of marijuana and industrial hemp in the Code of Virginia, the Department had removed all previously approved Duquenois-Levine field tests from the list of approved field tests under 6VAC40-50 (Approval of Marijuana Field Tests for the Detection of Marijuana Plant Material). However, the notification did not affect the approval of Duquenois-Levine field tests under 6VAC-40-30 (Approval of Field Tests for the Detection of Drugs), which provides the process for the approval of field tests for use by law enforcement officers under Virginia Code § 19.2-188.1(A). Virginia Code § 19.2- 188.1(A) permits law enforcement officers to testify to the results of field tests approved by DFS in any preliminary hearing for a felony drug offense. The notification also did not prohibit law enforcement officers from using the field test as part of their investigation of any marijuana-related offenses. A revised submission policy indicated that DFS would accept all underage possession of marijuana cases and clarified the packaging requirements for violations of the home cultivation statute.

STRmix™ Statistical Capabilities for DNA Mixtures

On December 27, 2021, the Department sent a Notice of DFS Policy Change to its customers advising implementation of STRmix, which is an additional probabilistic genotyping software used for the interpretation of complex DNA mixtures. STRmix is used for two or three contributor mixtures in “non-persons cases” (e.g., larcenies and felons in possession of firearms cases) that meet certain criteria. It has been implemented in all four laboratories, which will cut down on the number of cases that have to come to Richmond to have statistics calculated. The Department is still using TrueAllele, the other probabilistic genotyping software, on “persons’ cases” (e.g., homicide and sexual assault). All cases requiring TrueAllele are processed by the Central Laboratory.

General Notices

Statewide Forensic Biology (DNA) Case Redistribution

On May 18, 2022, the Department sent notice to its user agencies that its turnaround times for DNA analysis in the Northern and Western Laboratories was longer than normal, and as a result, DFS was redistributing some of those cases to the Central and Eastern Laboratories.

DFS COVID Response

DFS has maintained all laboratory testing capabilities throughout the pandemic. Early in the pandemic, staff were permitted to work staggered schedules to maintain social distancing and allow for child care. Use of teleworking also increased.

As of July 2022, consistent with prepandemic policies, telework continued to be an option for eligible positions. Pursuant to Department of Human Resource Management (DHRM) Policy 1.61 (Teleworking), the Department reviewed and replaced all prior work agreements with a new standard work agreement.

The Department continues to regularly notify staff of regional COVID levels and appropriate risk mitigation practices. It has developed internal disinfection capability, which allows DFS Facilities staff in each laboratory to perform any required disinfection.

DFS staff who testify are required to have their testimony evaluated each year. During the height of COVID-19 restrictions, judicial policies heavily restricted the number of people allowed in courtrooms. The Department relied heavily on the use of testimony review evaluations by attorneys. As courtroom restrictions have eased, non-testifying DFS staff increasingly have been able to evaluate the testimony of colleagues in their disciplines.

Enhancing External Communication

The DFS website, which was last redesigned in 2013, is being updated. Changes include updates to address accessibility standards and increased flexibility for viewing on mobile devices.

DFS plans to re-establish the Customer Working Group (CWG), which seeks feedback from customers on issues such as evidence submission policies and potential report format/wording changes.

An online Customer Satisfaction Survey was open from January 27 – February 28, 2022. It received 177 responses, in which 101 indicated that DFS exceeds expectations. Forty respondents indicated various areas for improvement, including case turnaround times, availability of toxicologists, and additional customer training.

Compounds Scheduled Through Board of Pharmacy Regulations

Pursuant to Virginia Code § 54.1-3443(D), the Board of Pharmacy is permitted to temporarily place substances into Schedule I or II via an expedited regulatory process. DFS monitors evidence submissions to its Controlled Substances Section and tracks new compounds that are submitted statewide. DFS recommends compounds to the Board of Pharmacy for this process on a quarterly basis for their consideration under the statute.

Between October 1, 2021, and September 30, 2022, DFS recommended a total of twenty compounds to the Board of Pharmacy for consideration. These compounds included: three synthetic opioids (Schedule I), 10 compounds expected to have hallucinogenic properties (Schedule I), one compound expected to have depressant properties (Schedule I), one compound expected to have central nervous system stimulant properties (Schedule I), and five cannabimimetic agents (Schedule I). All twenty compounds have been placed into Schedule I via Board of Pharmacy regulation.

Report of Drug Cases Submitted to the Virginia Department of Forensic Science

The Department receives tens of thousands of drug samples every year, submitted by law enforcement agencies from across the state. The annual report of *Drug Cases Submitted to the Virginia Department of Forensic Science*, a joint effort by DFS and the Virginia Department of Criminal Justice Services (DCJS), highlights the frequency with which various selected drugs are submitted, broken out by the seven Virginia State Police divisions and 32 Virginia Court Districts. Marijuana is not included in the report because the Code of Virginia was amended in 2006 to allow law enforcement officers to testify to the results of marijuana field tests at trial in simple possession cases.

On April 11, 2022, the Department released the report of *Drug Cases Submitted to the Virginia Department of Forensic Science CY2021*. Overall, drug submissions to DFS dropped in CY2021, but that varied across the different drug categories. As in the prior year, methamphetamine submissions were essentially unchanged, and methamphetamine continued to be the drug found in more items than any other controlled substance (25% of the total submissions). A notable decrease was seen in heroin (32%) and prescription opioids (4%), but illicit synthetic opioid submissions increased by 17%. Prescription and illicit benzodiazepines both decreased (13% and 12%, respectively), as did cocaine (6%). Increases were seen in cannabimimetic agents (28%) and other designer drugs (4%).

Reports from CY2019, CY2020, and CY2021, as well as those from previous years, are accessible at: <https://www.dfs.virginia.gov/documentation-publications/>

Training

Forensic Training Section

The Department's Forensic Training Section conducts the Forensic Science Academy (FSA), a nine-week school in Crime Scene Technology. Each nine-week FSA session provides in-depth training to twelve select law enforcement personnel in the recognition, documentation, collection, preservation, and handling of physical evidence through classroom instruction by forensic experts, evidence collection demonstrations, and numerous practical exercises in simulated crime scenes. The 105th FSA Session graduated April 1, 2022 and had the first in-person ceremony since 2019, and the 106th FSA Session graduated June 24, 2022. The 107th FSA Session began in September 2022.

The Forensic Training Section also presents numerous short courses throughout the year on various crime scene investigation subjects, including Basic Crime Scene Investigation, Basic Digital Crime Scene Photography, and Impression Evidence Documentation and Collection. After receiving positive feedback to the virtual short courses offered as a result of the pandemic, the Training Section has continued offering virtual classes, along with in-person courses.

The Virginia Forensic Science Academy Alumni Association Annual Retraining Seminar was conducted on September 7, 2022 in Virginia Beach. This was the first in-person delivery of this seminar since 2019. Over 120 attendees heard presentations regarding topics such as case studies, a legal update, and rapid DNA testing from both a laboratory and field use perspective.

Breath Alcohol Instrument Operator Training

The Department's Breath Alcohol Section provides maintenance of the evidential breath alcohol instruments, responses to legal requests for information, testimony, and training for law enforcement personnel. From October 1, 2021 through September 30, 2022, the Breath Alcohol Section conducted 45 initial breath alcohol instrument operator (three-day) classes and licensed 655 new operators. During this period, the Section continued to utilize the online recertification course, and, as of September 30, 2022, had offered 13 of these courses, relicensing 877 operators online. In addition, the Section conducted 72 in-person recertification (four-hour) sessions and subsequently relicensed 1,274 operators in person. There are 6,099 licensed operators.

The Breath Alcohol Section has adapted to COVID-19 and has increased the class sizes compared to previous years. The laboratory portion of the course is still set up to increase the distance between students. Instructor Recertification was held in September 2022 in Virginia Beach with 16 law enforcement instructors in attendance.

In consultation with the Virginia Occupational Safety and Health (VOSH) Program, DFS provided COVID-19 appropriate guidance and precautionary measures relating to conducting evidential breath testing to operators and agency contacts. Initial guidance, which was provided in March 2020 and updated in April 2020 as the pandemic progressed, continues to be utilized by operators.

Legal Resources Provided on DFS Website

The Department provides Legal Resources on its website. Topics include Freedom of Information Act (FOIA) Requests, Subpoenas Duces Tecum (SDTs), Requests for Results and Orders for Scientific Investigations under Virginia Code § 9.1-1104, Long Term Storage Orders under § 19.2-270.4:1, Post-Conviction Testing under § 19.2-327.1, and Witness Subpoenas for Civil Cases. Model Orders are also available. The information can be accessed on the DFS website at: <https://www.dfs.virginia.gov/about-dfs/legalresources/>

New Forensic Science Board Policy on Electronic Meeting Participation

At its meeting on October 19, 2022, the Board adopted a Policy on Individual Electronic Participation and All-Virtual Forensic Science Board Meetings pursuant to Virginia Code § 2.2-3708.3.

The new policy, reflecting amendments to the Code that became effective on September 1, 2022, expands the reasons that an individual Board member may participate electronically in a meeting and authorizes the Board to convene all-virtual public meetings.

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

Marijuana Field Tests

The Notice of Intended Regulatory Action (NOIRA) for amendments to 6 VAC 40-50, the Regulations for the Approval of Marijuana Field Tests for Detection of Marijuana Plant Material, was approved by the Governor's office and published in the January 3, 2022 issue of the Virginia Register of Regulations. These amendments would permit the Department to approve non-Duquenois Levine field tests, as well as other technology that may evolve that could distinguish marijuana from industrial hemp. A public comment period ran for 30 days following the publication of the NOIRA. No public comments were received. At the Board's April 21, 2022 meeting, the Board approved that the proposed amendments proceed to the Proposed Stage. The amendments are now in the executive approval process.

Parking at DFS Facilities

The Board approved proposed parking regulations (6VAC40-15) for Department facilities at its April 21, 2022 meeting. These fast-track regulations were submitted for executive review via Virginia's Regulatory Town Hall. It is anticipated that they will be effective by the end of 2022.

DNA Data Bank Sample Tracking System

The Board approved proposed amendments to 6VAC40-40, the Regulations for the Implementation of the Law Permitting DNA Analysis Upon Arrest for All Violent Felonies and Certain Burglaries, at its July 13, 2022 meeting. Because the amendments are necessary to conform the regulations with Chapters 41 and 42 of the 2022 Acts of Assembly, which went into effect on July 1, 2022 and mandated the use of a new DNA Data Bank Sample Tracking System maintained by the Department, the regulatory action was exempt under Code § 2.2-4006(A)(4)(a). These amendments were published on October 10, 2022 in the Virginia Register of Regulations and will become effective on November 9, 2022.

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

The Scientific Advisory Committee (SAC) met in person on April 20, 2022, and on October 18, 2022. A list of its members is included as Attachment B.

Scientific Advisory Committee Recommendations/Actions

SAC Meeting on April 20, 2022

The Toxicology Subcommittee met on April 20, 2022 immediately prior to the SAC's full meeting to discuss the following:

Validation Plans and Summaries

- Ephedrine Confirmation by Liquid-Liquid Extraction and LCMSMS
- Etizolam Quantitation and Confirmation by Liquid-Liquid Extraction using LCMSMS
- Expansion of the Miscellaneous Base Drugs Quantitation and Confirmation by Solid Phase Extraction Using LCMSMS
- Sertraline in the Miscellaneous Base Drugs Quantitation and Confirmation by Solid Phase Extraction Using LCMSMS

Verification Plan

- Verification Plan of Horse Blood for Opioid and Cocaine Quantitation and Confirmation using LCMSMS

The Subcommittee discussed each of the above and submitted its report to the SAC. The SAC accepted the Subcommittee's report, which recommended to close the review of all plans and summaries.

The Controlled Substances Subcommittee members had individually reviewed the Department's Validation Plan: *Addition of Tetrahydrocannabinol Isomers to Existing Semi-Quantitative Gas Chromatography-Flame Ionization Detection/Mass Spectrometry (GC-FID/MS) Method* prior to the SAC meeting on April 20, 2022, and determined that no Subcommittee meeting was required. The SAC accepted the Subcommittee's recommendation to close the review of the validation plan.

SAC Meeting on October 18, 2022

The SAC did not make any recommendations at its meeting on October 18, 2022.

7. INFORMATION ABOUT USE OF THE PHYSICAL EVIDENCE RECOVERY KIT (PERK) TRACKING SYSTEM

PERK Tracking System Overview

In accordance with Code § 19.2-11.13, DFS maintains a statewide electronic tracking system for physical evidence recovery kits (PERKs). All health care providers, law enforcement agencies, the Division of Consolidated Laboratory Services (DCLS), and the Office of the Chief Medical Examiner (OCME) are required to update the status and location of each kit in the PERK Tracking System whenever such status or location changes. Kits are tracked by their unique ID number or barcode; no personally identifying information is captured in the system. An enactment clause included in the legislation creating Code § 19.2-11.13 requires DFS to include information about use of the PERK Tracking System in this Annual Report. See Chapter 473 of the 2019 Acts of Assembly.

DFS is able to analyze the data generated by the System to evaluate how it is being used. Use of the System became mandatory on July 1, 2020. Now, with an additional year of data, DFS is able to include new metrics that provide a more detailed picture of the handling of sexual assault kits in the Commonwealth. In this year's Report, DFS added kit turnaround time, kits logged as destroyed by law enforcement, and the relative volume of kits logged as exempt from submission because they were deemed not connected to a criminal offense. This Report also covers how DFS adapted System functions and available resources in response to legislation updates and user feedback.

It is important to acknowledge the limitations associated with data derived from the PERK Tracking System. Not all actions performed on PERKs are ultimately logged in the System, which may lead to the counts of kits presented in this report to be an underestimation of what is actually occurring in the Commonwealth. Additionally, not all agencies with access to the System have been using it consistently and properly.¹ However, the PERK Tracking System does allow for new entries related to a kit to be added despite previously skipped entries so that incomplete information logged by one agency does not affect subsequent entries of other agencies handling the kit.

¹ On a regular basis, DFS performs multiple standardized quality checks to identify anomalies in the data. With these findings, DFS can provide targeted assistance to agencies and their users so that they can adjust information that may have been entered in error or add entries that may have been skipped entirely.

PERK Tracking System Training

Only authorized personnel from collection sites, law enforcement, DCLS, and DFS may access the System.² Users are granted access to the System only after completing PERK Tracking System Training. DFS continues to offer multiple training options in order to accommodate the unique needs and schedules of user agencies. System training includes a discussion concerning the statutes contained in Chapter 1.2 of Title 19.2 of the Code of Virginia relating to law enforcement agency submission and retention requirements.

Collection Sites

In November 2021, DFS met with the Department of Criminal Justice Service's Sexual Assault Forensic Services Coordinator who is responsible for creating and maintaining a statewide list of available sexual assault forensic examiners, sexual assault nurse examiners, sexual assault forensic nurse examiners, and pediatric sexual assault nurse examiners. During this meeting, the Coordinator validated the list of 23 collection sites DFS identified. Since this meeting, one Collection Site stopped offering forensic exams and three new Collection Sites contacted DFS for training and System access. As of September 30, 2022, DFS identified 25 collection sites that will routinely collect PERKs.³

The majority of identified collection sites (72% or 18 collection sites) were trained and given access to the PERK Tracking System prior to the July 1, 2020 mandatory start date. The remaining seven collection sites were trained and granted access between July 1, 2020 and September 30, 2022. All off the 25 collection sites that have been trained and granted access to the System are active System users.⁴

Law Enforcement

Prior to the mandatory start date for use of the System, half of all law enforcement agencies who handle PERKs (166 of 314 agencies) were trained and granted System access.⁵ An additional 86 law enforcement agencies (27%) completed training and were granted access to the System between July 1, 2020 and September 30, 2022. Four law

² Full descriptions of PERK System User Types can be found in the 2020 and 2021 Forensic Science Board Annual Report, which may be accessed online at <https://rga.lis.virginia.gov/Published/2020/RD481> and <https://rga.lis.virginia.gov/Published/2021/RD610> respectively.

³ OCME is not included in this count of collection sites.

⁴ An "active System user" is defined as an agency that has initiated at least one action in the System.

⁵ The total count of law enforcement agencies who handle PERKs (314) excludes non-primary law enforcement sheriffs (32) and regional jails (22).

enforcement agencies are still in the process of completing training, and the remaining 58 law enforcement agencies (18%) have yet to begin training. The remaining untrained agencies are smaller agencies that rarely, if ever, handle PERKs. DFS is continuing to extend training opportunities to agencies that have no users on the System.

Of the 252 law enforcement agencies that have been trained and granted access to the System, 189 (75%) are active System users. Not all law enforcement agencies with System access may be active users at this point because they may not have handled any PERKs since they were granted System access or use of the System became mandatory (whichever came first).

Victim Advocates

Although victim advocates do not have direct access to the PERK Tracking System, law enforcement agencies with victim advocates on staff (or who work for the Commonwealth's Attorney's Office) may provide these victim advocates with viewer-only access to their agency account. However, without access, being knowledgeable about the System will assist the advocates in supporting victims. Accordingly, upon request, DFS provides PERK Tracking System training to victim advocates so they can inform victims of their right to access the System, as well as what information is available to them through the Victim Portal.

System Modifications

Modifications from PERK Legislation Updates

DFS made changes to System functions to reflect legislation that became effective July 1, 2022. Code § 19.2-11.8 was amended and now includes mandatory retention periods for PERKs that are exempt from submission. Previously, mandatory retention periods only applied to PERKs that had been returned to law enforcement upon completion of analysis by DFS. To ensure that data collected by the PERK Tracking System reflects this change, DFS updated the list of "Reasons" from which law enforcement System users can choose when logging the destruction of a kit.⁶ These updated "Reasons" now are: "Returned from DFS Post-Analysis - Ten (10) Year Minimum Retention Period Met," "Not Connected to Crime - Ten (10) Year Minimum Retention Period Met," "Routine Death

⁶ Prior to the change, the "Reasons" from which law enforcement could choose when logging the destruction of a kit in the PERK Tracking System were "Exempt from Submission – Not Connected to Crime," "Exempt from Submission – Routine Death Investigation," or "Submitted for Analysis – Statutory Requirements for Destruction Met."

Investigation - Ten (10) Year Minimum Retention Period Met,” and “Not Transferred to Investigating Agency (VA or non-VA) - Ten (10) Year Minimum Retention Period Met.”

Legislation changes also led DFS to make changes to user resources. DFS created new instructional and informational materials for law enforcement agencies that are now required to provide victims, parents, guardians, and next of kin with the PERK ID, Victim PIN, and instructions for accessing the Victim Portal, if doing so would not interfere with the investigation or prosecution of the offense.⁷ These resources include a Victim PIN Information Sheet for Law Enforcement, a Victim PIN Frequently Asked Questions (FAQ) for Law Enforcement, and a Victim PIN Refresher Video. Each of these items are available to law enforcement users in multiple System Help Boxes.

Modifications from User Feedback

The PERK Tracking System is configurable, so DFS can make System modifications based on user feedback. In February 2022, following a request from the OCME, DFS added the option for OCME users to enter case numbers into the System. OCME System users wanted the ability to connect a PERK ID to an OCME case number when fielding questions from law enforcement agencies about OCME PERK entries in the System. Because the OCME is a Collection Site, this update made the case number feature visible on all Collection Site user accounts including hospital and medical center accounts.⁸ DFS communicated to all Collection Sites via a System banner, instructional sheets, and Help Box text that the case number feature is intended for use only by OCME Collection Site users.

In April 2022, a Sexual Assault Nurse Examiner (SANE) suggested that DFS add a drop down menu of options when Collection Site users log the removal of a new kit from their inventory. At the time, the “Reason” field did not have any options beyond “Not Available for Collection.” DFS asked all Virginia Sexual Assault Forensic Examiner Program Coordinators for feedback regarding potential additions. Based on their input, DFS added the following reason options when logging the removal of a new kit from inventory: “New Kit Damaged,” “New Kit Used for Training,” “New Kit Opened for Collection and Not Used,” and “New Kit Removed for Other Reason.”⁹

⁷ Code § 19.2-11.11

⁸ Collection Sites are only able to see case numbers entered by their own Site. For example, only OCME System users can see case numbers entered by the OCME.

⁹ “New Kit Damaged” refers to a new kit that arrived at the intended location crushed, ripped, or showing other signs of damage. “New Kit Used for Training” refers to a new kit that was opened and used solely to train new staff. “New Kit Opened for Collection and Not Used” refers to a new kit that was opened with the intent to use it for collection, but due to a refusal of the exam or another circumstance, it was not used. “New Kit Removed for Other Reason” refers to a new kit that was removed for a reason other than those listed. In

System modifications based on user feedback are not limited to feedback from authorized users such as Collection Sites. In response to inquiries received by victims who were having difficulty accessing the System, DFS collaborated with the Sexual Assault Kit Initiative (SAKI) team at the Office of the Attorney General of Virginia to redesign the Victim Portal login screen. In March 2022, DFS updated the Victim Portal login screen to have more concise instructions and clearer wording that describes the need for a Victim PIN for offense-reported PERKs. DFS also reorganized the login screen Help Box and added additional resources.

Kits in the PERK Tracking System

Kit Types

As of September 30, 2022, 10,972 kits have been entered in the PERK Tracking System. Of these kits, the vast majority (94%, 10,342) are barcoded PERKs¹⁰ (including barcoded OCME PERKs), while the remaining kits are composed of non-barcoded legacy PERKs¹¹ (5%, 556), and non-Virginia kits¹² (1%, 74).

Anonymous vs. Offense Reported Kits

Once a kit has been collected during a forensic medical examination, the kit will be either an “anonymous kit” or an “offense reported kit.” An anonymous kit is one where the victim elects, at the time of the examination, not to report the sexual assault to law enforcement. As of September 30, 2022, there were 1,161 anonymous kits in the System with a post-collection status.¹³ This figure includes anonymous PERKs currently at DCLS

cases where Collection Site users believe that “New Kit Removed for Other Reason” applies, DFS asks that they contact the PERK Tracking System Coordinator before logging that selection.

¹⁰ DFS began distributing the new, barcoded PERKs at the end of 2018. The barcoded kits are manufactured with the unique barcode/PERK ID on the outside of the kit so they can be entered into the System before they are distributed.

¹¹ Non-barcoded Virginia PERKs (referred to as “legacy” kits), which preceded the barcoded kits, also have a unique ID number; however, the unique ID number is not placed on the outside of the legacy kits until they are collected. Accordingly, legacy PERKs are being initially entered into the System after collection, and they were not logged into the System by DFS before distribution.

¹² Non-Virginia kits are kits that are collected at hospitals outside of Virginia but are associated with Virginia cases. These kits have unique ID numbers, and user agencies have been provided information on how to enter those kits into the System.

¹³ Post-collection status refers to current kit statuses that reflect that the kit has been collected at some point in time. A collection does not have to be logged for a kit to have a post-collection status (e.g., a collected kit that was never logged as collected by the collection site would have a post-collection status once it is received

for anonymous storage and anonymous PERKs at collection sites or law enforcement pending transfer to anonymous storage.

An offense reported kit is one collected from a victim where the victim elects, at the time of the examination (or at a later time), to report the offense to law enforcement. As of September 30, 2022, there were 5,567 offense reported kits in the System with a post-collection status. This figure includes all offense reported kits except those that were exempt from submission because the kit was collected as part of a routine death investigation.

Not all anonymous kits remain anonymous. Victims who, at the time of collection, elect not to report the offense to law enforcement may subsequently decide to report the offense. Within the past year (October 1, 2021 to September 30, 2022), 28 kits in anonymous storage at DCLS became offense reported and were transferred to the investigating law enforcement agency. This is eight more than the count of kits released to law enforcement during the same period in the previous year (October 1, 2020 to September 30, 2021). The ratio of kits transferred to law enforcement and kits received by DCLS during the same period also increased from the previous year (6.1% to 7.7%).¹⁴

Actions Performed on Kits in the PERK Tracking System

Actions Performed on Kits in the PERK Tracking System (October 1, 2021 to September 30, 2022)	Count of Kits
Kits Collected by Collection Sites	1,501
Virginia (non-OCME) Collection Sites	1,467
OCME	34
Tennessee Collection Sites ¹⁵	0
Kits Received by DCLS for Anonymous Storage	366
Kits Received by Law Enforcement from Collection Sites or DCLS	1,448
Kits Received by Law Enforcement from Other Law Enforcement Agencies	18
From Virginia Law Enforcement Agencies	17
From Non-Virginia Law Enforcement Agencies	1

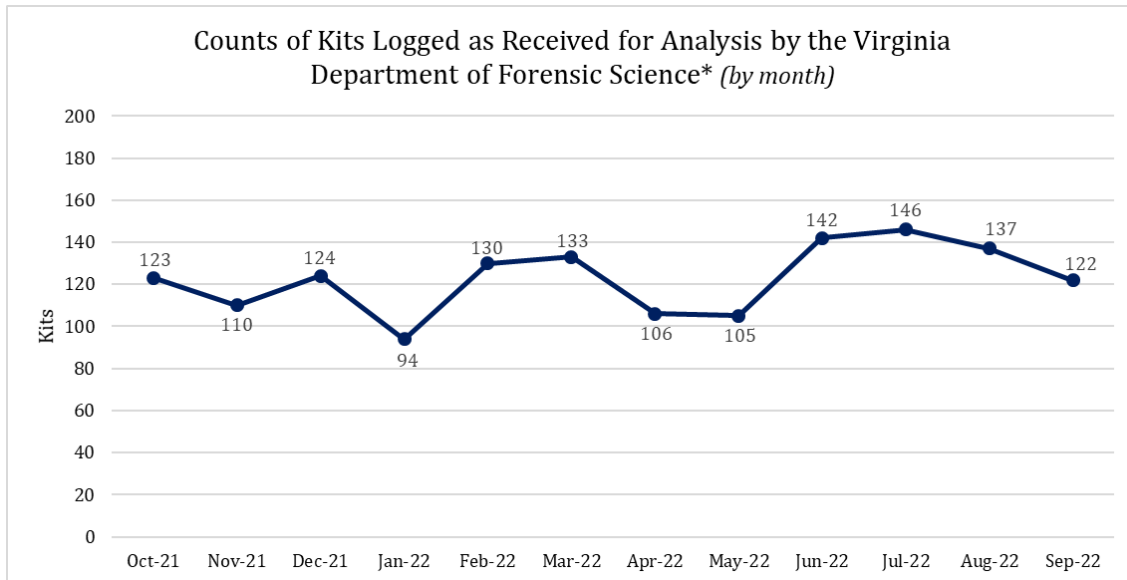
as a reported offense kit by law enforcement). Accordingly, the total number of kits with a post-collection status will not equal the count of kits logged in the System as collected.

¹⁴ Between October 1, 2020 and September 30, 2021, DCLS received 326 kits for anonymous storage. Between October 1, 2021 and September 30, 2022, DCLS received 366 kits for anonymous storage.

¹⁵ Ballad Health (a large health network that covers hospitals in Virginia and Tennessee) and the Branch House Family Center (Tennessee) receive new kits from DFS and have access to the PERK Tracking System to enter information on kits they collect for Virginia cases.

Kits Received by DFS for Analysis

From October 1, 2021 to September 30, 2022, DFS has logged the receipt of 1,472 kits from law enforcement for analysis. Since October 2021, DFS has logged the receipt of an average of 122.7 kits per month for analysis (median: 123.5 kits).



*Kits logged as received from law enforcement by DFS for analysis; only includes the initial submission of kits that were submitted multiple times.

Kits counted in this graph include barcoded PERKs (including OCME PERKs), non-barcoded legacy PERKs, and non-Virginia kits.

Kit Turnaround Time¹⁶

Using PERK Tracking System data, DFS is able to approximate the average turnaround time for kits received for analysis.¹⁷ Since October 2021, the average number of days between the initial receipt by DFS and the initial issuance of a report is 121.9 days (median = 96 days).¹⁸ Of the 1,472 kits that were logged as received by DFS for analysis

¹⁶ Kit Turnaround Time is derived from PERK Tracking System data and should not be compared to and/or associated with the Statewide Average Turnaround Time for DNA cases (<https://www.dfs.virginia.gov/about-dfs/current-turnaround-times/>). The System only includes information on sexual assault kits as logged by System users and does not include information on other types of evidence subject to DNA testing.

¹⁷ This measure is the number of days between (1) the initial date the kit was logged as received by DFS for analysis and (2) the date on which the first report was logged as issued for the kit. Kits can be received multiple times throughout their life course (e.g., resubmissions) and multiple reports can be issued for the same kit.

¹⁸ Reports will be issued whether the PERK was tested to completion or analysis was terminated. When the issuance of a report is entered into the System, it does not differentiate between completed and terminated testing.

between October 1, 2021 and September 30, 2022, 874 (59%) kits have had at least one report logged as issued.

PERK Distribution

One of the main purposes of the PERK Tracking System is to track the distribution of new barcoded PERKs and monitor their life course. Prior to the PERK Tracking System, a significant portion of new PERKs distributed were never returned to DFS for analysis.

Status of Barcoded PERKs Distributed for Collection (as of September 30, 2022)	Count of PERKs	Percent
PERKs Distributed for Collection	7,760	100%
Available for Collection	1,389	18%
Anonymous	1,041	13%
Offense-Reported Pending Submission for Analysis	316	4%
Submitted to DFS for Analysis	4,344	56%
Exempt from Submission*	421	5%
Destroyed by Law Enforcement	37	<1%
Removed from Inventory (New PERKs)**	212	3%

* Exempt from submission because they were deemed not connected to a crime, were collected as part of a routine death investigation, or were transferred to an out-of-state law enforcement agency.

** Removed because they were damaged, used for training, or opened for collection but not used.

In December 2021, a manufacturing delay led to a temporary shortage of new PERKs available at DFS for distribution. In response, DFS used PERK Tracking System data to regulate the distribution of PERKs based on immediate need. DFS evaluated each Collection Site’s need by calculating each Site’s (1) current inventory of new PERKs available for collection and (2) the average number of PERKs logged as collected weekly. DFS then limited the distribution of PERKs to locations that had less than one month of kits on hand.

Kits Destroyed

As of June 30, 2022, 42 kits were logged as destroyed.¹⁹ Prior to July 1, 2022, law enforcement could choose from one of three “Reasons” when logging the destruction of a kit in the System: “Exempt from Submission – Not Connected to Crime,” “Exempt from

¹⁹ June 30, 2022 was chosen as the reference date here because the statutory requirements for kit destruction changed effective July 1, 2022. As a result, DFS updated the “Reasons” from which law enforcement could choose when logging the destruction of a kit in the System. See the “Modifications from PERK Legislation Updates” section of this report for more information.

Submission – Routine Death Investigation,” or “Submitted for Analysis – Statutory Requirements for Destruction Met.” The most common Reason selected was “Exempt from Submission – Not Connected to Crime” (25 kits, 60%). One (<1%) kit was logged as destroyed because it was connected to a routine death investigation.

Sixteen kits (38%) were logged as destroyed after they had been returned to law enforcement post-analysis at DFS.²⁰ Of the 16 kits logged as destroyed after they were returned to law enforcement post-analysis, 14 (88%) kits had not yet reached the 10-year minimum retention period required by Code § 19.2-11.8. All but one of the 14 kits were logged as destroyed within one year of law enforcement receiving the kit back from DFS post-analysis.²¹ DFS could not calculate the time between law enforcement receipt from DFS post-analysis and destruction for two kits because of their incomplete kit history in the System.²² DFS continually offers training to law enforcement agencies concerning use of the System as well as the laws concerning submission and retention requirements.

Between July 1, 2022 and September 30, 2022, no kits were logged as destroyed in the System.

Victim PINs Granted²³

Victims with anonymous PERKs may access the System through the Victim Portal by entering their unique PERK ID number, which should be provided to them at the time of examination by the health care provider/collection site. Victims who elect to report the offense to law enforcement will be required to enter a PIN, in addition to their kit’s unique PERK ID, to access the System. Effective July 1, 2022, Va. Code § 19.2-11.11 requires law enforcement to provide victims, parents, guardians, or next of kin with this PIN plus the PERK ID and information for accessing the Victim Portal as long as doing so will not interfere with the investigation or prosecution of the offense.

²⁰ Four of the sixteen kits logged as destroyed after they had been returned to law enforcement post-analysis were entered into the System as destroyed with the “Exempt from Submission – Not Connected to Crime” reason selected. However, the kit histories of these four kits indicate that they had been submitted to DFS for analysis, tested to completion, and returned to law enforcement prior to their destruction.

²¹ One kit was logged as destroyed a little over one year (417 days) after it was received back from DFS post-analysis.

²² The two kits for which DFS could not calculate the time between law enforcement receipt from DFS post-analysis and destruction are non-barcoded “legacy” kits that had actions taken on them prior to the mandatory use of the PERK Tracking System.

²³ A description of the Victim Portal and the information accessible to each victim in the Portal can be found in the 2020 and 2021 Forensic Science Board Annual Report, which may be accessed online at <https://rga.lis.virginia.gov/Published/2020/RD481> and <https://rga.lis.virginia.gov/Published/2021/RD610> respectively.

As of September 30, 2022, 563 Victim PINs have been granted by law enforcement, and 312 of those were granted within the last year (October 1, 2021 to September 30, 2022). By design, the System does not capture whether these PINs were actually used to access the Victim Portal.

Designated Statutory Reasons for Non-Submission

Pursuant to Code § 19.2-11.8, a law enforcement agency that receives a PERK must submit the kit to DFS for analysis within 60 days unless one of five statutory exceptions applies. If a collected PERK received by a law enforcement agency will not be submitted to DFS for analysis because an exception applies, the statutory reason for non-submission should be designated in the PERK Tracking System.²⁴ These statutory exemptions are:

1. The PERK is anonymous;
2. The PERK is part of a routine death investigation and the medical examiner and law enforcement agree that analysis is not warranted;
3. The PERK is connected to an out-of-state offense;
4. The investigation associated with the PERK is being transferred to another law enforcement agency; and
5. The PERK was determined by the law enforcement agency not to be connected to a criminal offense

Kits Logged as Exempt from Submission by Statutory Exemption (as of September 30, 2022)	Count of Kits
Not Connected to Crime	438
Routine Death Investigation	57
Transfer of Investigation (to a Virginia Law Enforcement Agency)	42
Anonymous ²⁵	40
Out-of-State Offense	23
TOTAL	600

²⁴ Not all law enforcement users will explicitly designate that a kit is exempt from submission in the System, but will instead only log a related subsequent action. For example, a law enforcement user may not designate that a kit is exempt from submission because it is associated with an out-of-state offense and may only log the transfer of the kit to an out-of-state agency. Such scenarios **are** captured in the measures presented in this section.

²⁵ Most of this count (24 of 40 kits) comes from a single metropolitan law enforcement agency that back-entered actions performed on older legacy PERKs.

As indicated previously, once a PERK has been collected during a forensic medical examination, it will either be an “anonymous kit” (then stored at DCLS) or an “offense reported kit” (with possession taken by a law enforcement agency). An anonymous kit may become an “offense reported kit” if the patient later decides to report being the victim of a sexual assault offense to a law enforcement agency. The most widely designated statutory reason by law enforcement agencies for not submitting an offense reported kit for analysis to DFS is that the law enforcement agency considers the kit to meet the statutory exemption contained in Code § 19.2-11.8(A)(iv): “the physical evidence recovery kit was determined by the law-enforcement agency not to be connected to a criminal offense.”

Of all the offense reported kits logged as received by law enforcement agencies from either a Collection Site, DCLS, or another law enforcement agency as of September 30, 2022, 11% (438 out of 4,123) have subsequently been logged as exempt from submission to DFS for analysis because they were deemed not to be connected to a criminal offense.²⁶

PERK Legislation Compliance

As indicated above, Code § 19.2-11.8 requires any law enforcement agency receiving a PERK to submit the kit to DFS for analysis within 60 days of receipt unless one of the five statutory reasons applies. Law enforcement users are notified if they have missed this deadline in two ways: 1) through the PERK Tracking System’s internal notification system, and 2) through targeted emails sent by DFS at the beginning of every month.²⁷

DFS sent the most recent round of notifications to law enforcement on September 1, 2022. Of the law enforcement agencies that were notified, 20 had logged the receipt of a collected kit more than 60 days ago, but had not logged it as transferred to DFS for analysis or as falling under one of the statutory reasons for non-submission. Each agency in this category had, on average, about 1.8 kits that did not have the necessary actions taken on it within the mandated 60-day window.

²⁶ Code § 19.2-11.8 (A)(iv) provides no guidance as to the nature or extent of investigation required, the standard of proof to be considered, or a requirement to consult with another entity (such as the relevant Commonwealth’s Attorney’s Office). This exemption relates to the requirement that DNA profiles must be linked to the commission of crime prior to being uploaded to CODIS.

²⁷ Law enforcement agencies will receive the email notification if either of two scenarios applies: (1) If they have logged the receipt of a collected kit more than 60 days ago, but they did not log it as transferred to DFS for analysis or as falling under one of the statutory reasons for non-submission, or (2) If another user (i.e., collection site, DCLS or another law enforcement agency) has logged the transfer of a kit to the affected law enforcement agency more than 60 days ago, and no further action has been logged in the System with respect to the kit.

Nine agencies had one or more kits logged as transferred to their agency more than 60 days ago, and no further action, including the initial receipt by the law enforcement agency, had been logged in the System with respect to the kit. Agencies in this category had, on average, about 1.3 kits that required further action.

Interagency Support and Collaboration

Through the PERK Tracking System, DFS can provide support to agencies both within and outside of the Commonwealth of Virginia. Within Virginia, DFS has shared reports generated from the PERK Tracking System to help inform policy decisions and enhance data integrity.²⁸

For example, in May 2022, DFS used PERK Tracking System data to generate the count of PERKs logged as collected by year for a presentation entitled “Gaps in Sexual Assault Forensic Exam Services in Virginia,” which was presented to the Governor’s Task Force on Sexual Assault. Representatives from Bon Secours Richmond Health System and Department of Criminal Justice Services used this information to illustrate the volume of forensic exams completed by Virginia healthcare providers.

DFS also provides biannual reports to DCLS on the number of kits logged as received by DCLS for anonymous storage and the number of kits logged as transferred by DCLS to law enforcement. DCLS then compares this information to their internal records to ensure both data sources match.

Outside of Virginia, DFS has responded to requests for guidance from other states that are launching their own statewide sexual assault kit tracking systems. In these instances, DFS shared successes from the Virginia statewide launch and examples of System user resources such as User’s Manuals and Victim Information Forms.

²⁸ DFS does not share raw kit-level data. All reports shared only include aggregate counts (e.g., the number of kits logged as collected in 2021).

Attachment A

FORENSIC SCIENCE BOARD MEMBERS

(as of October 1, 2022)

- **Colonel Gary T. Settle** – Term: period in office or employment
Superintendent of the Virginia State Police
- **Jackson Miller** – 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 (Vice Chair)**– Term: period in office or employment Executive
Director of the Virginia Board of Pharmacy
- **M. Nicole Wittmann** – Term: period in office or employment Designee of Jason S.
Miyares, Attorney General of Virginia
- **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, Senator John S. Edwards
- **Denise M. Toney, Ph.D.** – Term: period in office or employment Director of the
Division of Consolidated Laboratory Services
- **The Honorable John S. Edwards, Senator** – Term: period in office or employment
Chair of the Senate Committee for Courts of Justice (Judiciary Committee)
- **The Honorable Robert B. Bell, Delegate** – Term: period in office or employment
Chair of the House Committee for Courts of Justice
- **George C. Maha, Ph.D.** – Term: designated by Scientific Advisory Committee Chair
Member of the Scientific Advisory Committee
- **Richard P. Meyers** – Term: designated by Scientific Advisory Committee Chair Member
of the Scientific Advisory Committee

- **Colonel Maggie A. DeBoard (Chair)** – Term: ending 6/30/2025
Governor Appointee – Member of Law Enforcement
- **The Honorable Megan L. Clark** – Term: ending 6/30/2025
Governor Appointee – Member of the Virginia Commonwealth’s Attorneys Association
- **Michael HuYoung** – Term: ending 6/30/2025
Governor Appointee – Criminal defense attorney with specialized knowledge in the area of forensic sciences

Attachment B

SCIENTIFIC ADVISORY COMMITTEE MEMBERS

(as of October 1, 2022)

- **Linda C. Jackson** – Term: period in office or employment Director of the Department of Forensic Science
- **Patricia A. Manzolillo** – Term: ending 6/30/2023
Governor Appointee – Director of a private or federal forensic laboratory located in the Commonwealth
- **Erin P. Forry** – Term: ending 6/30/2023
Governor Appointee – Scientist or other person with education, training or experience in laboratory standards or quality assurance regulation and monitoring
- **Peter M. Vallone, Ph.D.** – Term: ending 6/30/2025 Governor Appointee – Molecular Biologist
- **George C. Maha, Ph.D.** – Term: ending 6/30/2023 Governor Appointee – Population Geneticist
- **Richard P. Meyers** – Term: ending 6/30/2026 Governor Appointee – Forensic Chemist
- **Kristin Schelling (Chair)** – Term: ending 6/30/2023 Governor Appointee – Forensic Biologist
- **Christopher Bommarito** – Term: ending 6/30/2026 Governor Appointee – Trace Evidence Scientist
- **Marc A. LeBeau, Ph.D.** – Term: ending 6/30/2026
Governor Appointee – Toxicologist certified by the American Board of Forensic Toxicologists
- **Kenneth B. Zercie** – Term: ending 6/30/2023
Governor Appointee – Member of the Board of the International Association for Identification
- **William E. Demuth, II** – Term: ending 6/30/2025
Governor Appointee – Member of the Board of the Association of Firearms and Toolmark Examiners

- **Randall E. Beaty (Vice-Chair)** – Term: ending 6/30/2026
Governor Appointee – Member of the International Association for Chemical Testing
- **Kathleen Corrado, Ph.D.** – Term: ending 6/30/2025
Governor Appointee – Member of the American Society of Crime Laboratory Directors