PREPARED FOR :

COLORADO BUREAU OF INVESTIGATION

FORENSIC SERVICES AUDIT AND ASSESSMENT REPORT

JULY 8, 2025

FORWARD RESOLUTIONS

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Executive Summary

This report provides a comprehensive overview of Forward Resolutions' work, as outlined in the scope of the Colorado Department of Public Safety's (CDPS) Request for Proposal (RFP REAA 2025-0019). Forward Resolutions was hired to conduct an organizational assessment of the Colorado Bureau of Investigation's Forensic Services (CBIFS) section, which manages its forensic laboratory system. While the assessment focused on practices from 2022 to 2024, additional review was performed on specific topics dating as far back as 2010. The assessment was explicitly for the CBIFS section of the Colorado Bureau of Investigation (CBI) and not for Investigations or other sections of the Bureau.

Forward Resolutions formed a multidisciplinary team of eight highly skilled executive leadership professionals with expertise in the disciplines relevant to CBIFS, including DNA casework and database, serology, toxicology, firearms, latent prints, seized drugs, trace chemistry, and evidence. Members of this dynamic team collectively share over 100 years of formal leadership and management experience in the public and private sectors, including forensic science, law enforcement, the military, academia, and healthcare. Expertise includes ISO/IEC 17025:2017 compliance, ANAB accreditation, statutory governance, and industry best practices. The dynamic team assembled for this project possesses in-depth knowledge of national-level forensic science policies and operational frameworks.

The assessment activities included reviewing documentation, such as policies and procedures, to assess compliance with industry standards; conducting in-depth interviews with 136 CBIFS staff members and twenty-nine stakeholders of CBIFS to gather insights into operational practices and challenges; performing case reviews to identify any unrecognized or unresolved critical errors in casework; surveying CBIFS staff and leadership to evaluate the organizational culture and identify areas for improvement; evaluating current operational states and stakeholder feedback to inform recommendations; and conducting root cause analyses to uncover underlying issues affecting performance and quality. The assessment evaluated the organizational systems, workforce dynamics, quality management infrastructure, and leadership climate to identify strengths, challenges, and opportunities for system-wide improvement. Forward Resolutions examined the current quality initiatives being implemented, reviewed operational workflows, and assessed organizational culture and structure. The assessment team was also tasked with providing responsible, forward-looking recommendations to support long-term organizational sustainability, enhance employee engagement, and reestablish public trust in CBIFS.

It is important to emphasize that during stakeholder interviews, the overwhelming majority expressed confidence in the integrity and reliability of the scientific work and results produced by CBIFS.

Forward Resolutions was not retained to review or evaluate the investigative findings, technical conclusions, or casework involved in the Woods quality matter. While Forward Resolutions did not conduct a technical review of the cases involved, the assessment team was educated on the issues. The information received was considered as part of the broader analysis of quality system responses, leadership accountability, culture, and systemic change efforts.

For CBIFS, Forward Resolutions provided expert review and recommendations in:

- **Assessment of Organizational Structure:** Conducted a comprehensive evaluation of the current organizational structure, including recent modifications, to identify potential enhancements that improve workflow and overall efficiency.

- **Staffing and Resource Evaluation:** Assessed current staffing levels and resource allocation to determine their effectiveness in meeting operational demands. Identified resource gaps, recommended solutions, and, if necessary, proposed additional personnel or other critical resources.

- **Funding Analysis:** Reviewed current funding opportunities to assess alignment with existing operational capacity and future growth needs, ensuring financial resources are appropriately allocated.

- **Productivity and Operational Efficiency Review:** Analyzed key performance indicators, including capacity, turnaround times, and workflow efficiency. This assessment encompassed laboratory information management systems (LIMS), forensic workflows, and administrative processes that impact casework, identifying opportunities for optimization and improvement.

Overall, the CBIFS is not an outlier when viewed through a national lens. Its operations, available resources, alignment with industry best practices, and the professionalism and integrity of its staff are consistent with the standards observed across forensic science laboratories nationwide.

This report aims to enhance CBIFS by identifying areas for improvement, not as a reflection of deficiency, but as part of a forward-looking strategy for continuous improvement. The assessment team employed a detailed and focused approach to uncover meaningful insights and develop targeted recommendations that support ongoing growth and long-term success.

In that spirit and given the numerous recommendations detailed in this report, it is essential to note that this report establishes a strategic roadmap that spans approximately five to ten years, depending on resource availability. Several recommendations extend beyond the direct scope of CDPS and would necessitate a multidisciplinary, collaborative approach involving both Executive and Legislative support from the State of Colorado.

The following chart summarizes the primary categories under which the fifty-two (52) recommendations for CBIFS have been organized. These categories reflect key themes and focus areas identified during the assessment, providing a structured view of the strategic priorities for CBIFS to consider.

Recommendation Category	Example	Goal
Governance and Independence	Clarify and strengthen the structural independence of CBIFS from law enforcement functions within CDPS to preserve scientific integrity.	Reduce perceived or actual conflicts of interest and align with national best practices that emphasize the separation between forensic science and prosecutorial or investigatory agencies.
Organizational Culture and Leadership Development	Acknowledge the past but invest in comprehensive leadership development at all levels of CBIFS to build a stronger future.	Foster a psychologically safe, inclusive, and resilient culture with clear accountability, where leaders model integrity and staff are empowered to raise concerns constructively.
Strategic Communication and Stakeholder Engagement	Improve transparency and consistency in communication with internal and external stakeholders. Share the improvements made in the quality structure and program.	Continue strengthening trust with defense counsel, prosecutors, law enforcement, the judiciary, legislators, and the public by proactively communicating operational decisions, challenges, and the scientific limitations that inform laboratory practices.

Recommendation Category	Example	Goal
Resource Allocation and Workforce Planning	Conduct a comprehensive workforce and resource analysis to ensure alignment of all personnel with case demands and operational priorities. Consider several personnel additions, including IT staff, legal counsel, and additional laboratory managers.	Assess and respond to staffing needs and workload distribution to support operational effectiveness, while also planning proactively for emerging demands and future technology enhancements.
Continuous Improvement	Evaluate performance metrics and conduct continuous re-evaluations of those performance metrics as operational change is encountered.	Develop sustainable evaluation practices that consider case complexity to provide a clearer understanding of laboratory capacity and better inform future planning and right-sizing efforts.
Training, Mentorship, and Professional Development	Develop structured onboarding, mentorship, and ongoing training programs, including leadership training specifically designed for forensic science professionals. Ensure engagement with human resources to leverage developed programs.	Support staff retention, morale, and advancement, and reduce burnout and knowledge loss.
Policy and Procedure Reform	Audit and streamline policies and procedures to reflect current practices, clarify expectations, and eliminate redundancies. Ensure engagement with human resources.	Reduce procedural ambiguity and enhance efficiency and accountability.

This report draws upon established forensic science literature, national benchmarking tools, and federal agency guidance, including, but not limited to, resources from NIJ, RAND, ASCLD, NAS/NRC, the FBI, NASBO, and GFOA. References are located at the end of the report.

This assessment would not have been possible without the significant time, effort, and insight contributed by CBIFS staff, leadership, and stakeholders, whose commitment to continuous improvement is deeply appreciated.

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Glossary and Abbreviations

The glossary includes key terms relevant to the report's content, as well as some background terminology that may not be explicitly referenced but may be of assistance to the reader.

Term / Abbreviation	Definition
AAG – Assistant Attorney General	An attorney employed by the State of Colorado's Department of Law who provides legal counsel to state agencies, including CDPS and CBI.
ANAB – ANSI National Accreditation Board	The largest multi-disciplinary accreditation body in North America, providing accreditation services to public and private sector organizations, including forensic laboratories.
CBI – Colorado Bureau of Investigation	A division of the Colorado Department of Public Safety responsible for criminal investigations, criminal justice information management, and forensic laboratory services.
CBIFS – Colorado Bureau of Investigation Forensic Services	The forensic laboratory division within the CBI that provides scientific analysis of physical evidence.
CDPS – Colorado Department of Public Safety	Parent agency of the Colorado Bureau of Investigation. Additionally, it has four other operational divisions that encompass a range of safety programs and services, as well as a sixth division that provides operational support.
Chain of Custody	The documented process that records the sequence of custody, control, transfer, analysis, and disposition of physical or electronic evidence.
CODIS – Combined DNA Index System	A national database managed by the FBI that stores DNA profiles contributed by federal, state, and local forensic laboratories.

Term / Abbreviation	Definition
Competency Testing	A process to assess whether a forensic science practitioner has acquired and demonstrated the necessary knowledge, skills, and abilities to perform specific tasks independently. It is typically conducted during training and before the practitioner begins independent casework.
Contamination	The unintended introduction of substances or materials that can compromise the integrity of evidence or test results.
Corrective Action	Steps taken to eliminate the causes of non-conformities or other undesirable situations in laboratory operations.
Cross-Contamination	The transfer of contaminants from one sample or item to another, potentially leading to erroneous results.
DNA – Deoxyribonucleic Acid	The hereditary material in humans and most organisms; used in forensic science to identify individuals.
Evidence Submission Form	A document accompanying evidence submitted to a laboratory, detailing the items and requesting specific analyses.
Exculpatory Evidence	Evidence that may exonerate a defendant or reduce their culpability.
Firearms Examination	The forensic analysis of firearms, ammunition, and related evidence to determine their involvement in a crime.
Footwear	A forensic discipline involving the analysis of shoeprints and impressions to identify or exclude shoes and link them to suspects and crime scenes.
Forensic Toxicology	The study and analysis of biological samples to detect and identify drugs, alcohol, and poisons.
ISO/IEC 17025	An international standard specifying the general requirements for the competence of testing and calibration laboratories.

Term / Abbreviation	Definition
Latent Print	A fingerprint that is not visible to the naked eye but can be made visible through chemical or physical means.
LIMS – Laboratory Information Management System	A software-based solution that supports laboratory operations, including sample tracking, data management, and reporting.
MBIS – Multimodal Biometric Identification System	A system that integrates multiple biometric modalities, such as fingerprints, facial recognition, and iris scans, to enhance identification accuracy.
MOU Partners- Memorandum of Understanding Partners	The Memorandum of Understanding (MOU) partners in the Northern Colorado Regional Forensic Laboratory (NCRFL) in the Greeley, CO, include the Weld County Sheriff's Office (WCSO), the Larimer County Sheriff's Office, the Fort Collins Police Services (FCPS), and the Greeley Police Department (GPD). The Grand Junction Police Department (GJPD) is an MOU partner at the CBIFS Grand Junction Laboratory.
NAFSB- National Association of Forensic Science Boards	The National Association of Forensic Science Boards (NAFSB) is a grass-roots initiative and association that aims to ensure that State-level forensic science boards are best positioned to benefit forensic science. The association provides best practices and forums so that state-level boards can effectively communicate and share experiences. The NAFSB is not a federal entity or a national governing body.
NCRFL – Northern Colorado Regional Forensic Laboratory	A collaborative forensic laboratory serving multiple jurisdictions in northern Colorado, including participation from the CBI.
NIBIN – National Integrated Ballistic Information Network	A national network managed by the ATF that automates the imaging of unique identifiers on fired cartridge cases and stores the digital images for comparison across a national database.
OSAC – Organization of Scientific Area Committees for Forensic Science	A program under the National Institute of Standards and Technology (NIST) that develops scientifically sound forensic science standards.

Term / Abbreviation	Definition
Policy	A set of principles and guidelines formulated or adopted by an organization to direct its actions in pursuit of long-term goals. In forensic laboratories, policies govern areas such as evidence handling, quality assurance, and ethical conduct.
Practice	The actual application or use of an idea, belief, or method, as opposed to theories relating to it. In forensic laboratories, practices refer to the routine methods and procedures employed in the analysis and handling of evidence.
Presumptive Test	An initial screening test that indicates the possible presence of a substance but requires confirmatory testing for definitive identification.
Proficiency Testing	The evaluation of a laboratory's performance by testing samples with known values to ensure accuracy and reliability.
QA – Quality Assurance	Procedures and practices to ensure the reliability and accuracy of laboratory results. Quality Assurance (QA) is a systematic process designed to ensure that a service meets specified requirements. In the context of forensic science service providers, QA focuses on the reliability and integrity of the services rendered, rather than on tangible products. While forensic laboratories do produce outputs, such as analytical reports, the primary emphasis is on the processes and methodologies employed to deliver accurate and defensible results. QA in forensic science encompasses the entire lifecycle of service delivery, integrating continuous process improvement and risk assessment to prevent errors and enhance efficiency. By adhering to rigorous quality management systems, forensic laboratories aim to bolster stakeholder confidence and uphold the credibility of their findings within the justice system.
QIR – Quality Incident Report	A formal documentation of any deviation from standard procedures or unexpected events in the laboratory that may affect the quality of results.

Term / Abbreviation	Definition
RA – Risk Assessment	A systematic process of identifying, analyzing, and evaluating potential risks to determine their impact and the necessary controls to mitigate them.
Root Cause Analysis	A method of problem-solving used to identify the underlying reasons for a fault or problem.
SME – Subject Matter Expert	An individual with specialized knowledge or expertise in a particular area or field.
Standard Operating Procedure (SOP)	A set of step-by-step instructions compiled by an organization to help workers carry out routine operations.
Standards	Established requirements or specifications adopted by organizations to ensure consistent quality and compliance. In forensic laboratories, accreditation standards such as ISO/IEC 17025 outline the general requirements for competence in testing and calibration.
Subdiscipline	A specialized area within a broader forensic discipline, focusing on specific types of evidence or analytical techniques.
Technical Review	An evaluation of laboratory reports and documentation by another qualified individual to ensure accuracy and adherence to protocols.
Toolmark Analysis	The examination of marks left by tools on objects to identify the tool used and potentially link it to a suspect.
Transparency	The practice of conducting operations in an open and clear manner, ensuring that processes and decisions are accessible and understandable to stakeholders.
Validation Study	An investigation conducted to provide documented evidence that a specific method or process consistently produces accurate and reliable results when compared to known standards.

Additionally, it is essential to define several important terms that may be used in this document. These include the following:

Collaboration

Collaboration refers to the act of individuals or organizations working together towards a common goal or purpose. It involves sharing ideas, resources, and responsibilities to achieve mutual benefits. Effective collaboration often requires clear communication, mutual respect, and coordinated efforts among participants.

Confidentiality

Confidentiality is the principle of keeping sensitive information private and restricting access to authorized individuals only. In forensic science settings, it ensures that specific case-related information, data, results, and conclusions generated by an accredited crime laboratory are not disclosed without proper consent by the submitter of the evidence. This thereby maintains trust and compliance with international accreditation standards as well as ethical standards.

Transparency

Transparency denotes the quality of being open, honest, and straightforward about various forensic science operations. It involves openly sharing information related to performance, decision-making processes, and policies and/or practices, thereby fostering trust and accountability among stakeholders.

Methodology Overview

Forward Resolutions employed a multifaceted approach to assess CBIFS' operational efficiency, compliance, and quality assurance. An extensive document review was undertaken, including, but not limited to: analyzing organizational charts, staff curricula vitae, position descriptions, training materials, accreditation records, audit reports, quality incident reports, CBIFS policies and procedures, CBI policies and procedures, CDPS policies and procedures, and Colorado Revised Statutes. This analysis aimed to identify gaps, inconsistencies, redundancies, or outdated practices that could impact the laboratory's performance.

Every CBIFS staff member was invited to be interviewed in person by at least one member of the assessment team. Interviews were structured to gain insights into operational strengths and challenges. Over 98% of the CBIFS staff members participated in wide-ranging interviews across multiple locations, including Arvada, Pueblo, Grand Junction, Greeley, and associated MOU[1] partners. Follow-up interviews were also held virtually as needed. Those interviewed included staff across all CBIFS disciplines, technical leaders, laboratory managers and directors, scientists, support staff, quality assurance personnel, and training personnel. Discussions focused on leadership effectiveness, organizational culture, communication, workflows, decision-making structures, training systems, resource allocation, case prioritization, quality assurance practices, and employee well-being. All interviews were conducted confidentially and on a non-attribution basis to ensure candid participation of CBIFS staff. No names or identifiable references are included in this report; insights have been synthesized and anonymized to protect participant confidentiality while accurately reflecting shared perspectives and experiences.

Surveys were distributed to CBIFS staff across all laboratory locations and disciplines to gather additional insights into team dynamics, perceived gaps, organizational strengths, and areas for improvement. The CBIFS staff survey response rate was approximately 70%, and the data, in combination with the interview findings, provided a broader perspective on CBIFS' internal climate and operational health.

The assessment team gathered valuable feedback and insights into laboratory workflows through document review, laboratory tours, interviews, and surveys, including evidence intake, processing, analysis, reporting, and case resolution. Notably, numerous interview participants voluntarily requested follow-up interviews to provide additional context and clarification, an effort which the assessment team deeply appreciated.

Surveys were also distributed to stakeholders in Colorado's criminal justice system, including law enforcement, prosecutors, defense attorneys, and judges, to gather their perspectives on various aspects of CBIFS. In like manner to the surveys, a diverse cross-section of stakeholders, including members of the Colorado Bureau of Investigation Forensic Services Committee, law enforcement, prosecutors, judges, defense attorneys, and representatives from the Korey Wise Innocence Project and American Civil Liberties Union (ACLU) Colorado, were interviewed to ensure a comprehensive assessment. Additionally, interviews were conducted with CDPS Human Resources, CDPS Executive Leadership, and CBI Executive Leadership. Their insights were gathered to identify areas of strength and opportunities for improvement.

A SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis was performed to provide a strategic overview of CBIFS' current state. This analysis identified internal strengths and weaknesses, as well as external opportunities and threats, informing recommendations for future improvements.

1. The Memorandum of Understanding (MOU) partners in the Northern Colorado Regional Forensic Laboratory (NCRFL) in Greeley include the Weld County Sheriff's Office (WCSO), the Larimer County Sheriff's Office, the Fort Collins Police Services (FCPS), and the Greeley Police Department (GPD). The Grand Junction Police Department is an MOU partner at the CBIFS Grand Junction Laboratory.

CBIFS Leadership: Past and Current

The critical importance of integrating robust business acumen with scientific expertise in the leadership of forensic laboratories must be acknowledged. While technical and scientific proficiency remain essential, effective leadership in this context necessitates a comprehensive understanding of organizational management, strategic planning, and cultivating a culture centered on employee engagement and continuous improvement. This is true whether one is supervising a unit or executive management and leadership of a crime laboratory system.

Leaders must be adept at operational oversight and fostering an environment that encourages coaching, empowerment, and ongoing personnel development. This includes a thorough knowledge of applicable statutory regulations, the courage to set boundaries to what the crime laboratory scientists and technicians can and cannot do, the ability to build and maintain strategic relationships, the ability to encourage and cultivate educational opportunities with stakeholders and an acute awareness of public policy and the broader political landscape. Leaders not only have to perform these tasks effectively, but they must also continually invest in their growth as leaders. Such multifaceted competencies are essential to ensure that forensic laboratories maintain scientific and operational integrity and operate efficiently and responsively within the justice system.

Reported Concerns About Past CBIFS Leadership

Multiple reports indicated that while the prior CBIFS leadership made significant strides in getting improved facilities and ensuring compliance with quality standards, they lacked the necessary capacity to effectively manage several critical areas, including, but not limited to, organizational assessment and management, leadership development, accountability, crisis response, and transparency. Notable deficiencies identified include:

- Personnel Management**:** Staff reported that past CBIFS leadership did not effectively manage or support their personnel. Reports describe failures to address staff warnings and allegations of misconduct in a timely and appropriate manner. This inability to adequately address employee and management performance and behavior issues, as well as respond to staff input, created frustration and eroded trust

among team members. It also fostered an environment where problems were allowed to persist without being addressed.

- Organizational Culture Development: Staff reported that the former CBIFS leadership did not foster a healthy and transparent culture in the laboratories. CBIFS staff described how morale suffered under a fear-based culture perceived as autocratic, punitive, or indifferent. Staff feedback suggests employees felt unable to speak up about concerns and feared retaliation if they challenged favored individuals.

- Crisis Management: The previous CBIFS leadership was ill-equipped to handle crises and critical incidents. When early signs of serious misconduct and data irregularities emerged, leadership's response was slow, fragmented, or overly narrow. The executive leadership of the parent organization was often left uninformed. This lack of robust action and communication in the face of clear warning signs demonstrates poor crisis management and a failure to effectively handle issues before they grow into full-fledged scandals.

- Stakeholder Impact Awareness: Past CBIFS leaders did not sufficiently recognize or anticipate second- and third-order impacts of lab issues on external stakeholders. The laboratories provide crucial forensic services to law enforcement, prosecutors, defense attorneys, victims, and the courts, with the public as their primary customer. Yet, under previous CBIFS leadership, there was little proactive outreach or transparency when problems arose. This oversight meant that defendants were left unaware that evidence in their cases might be compromised, and victims were not informed that justice could be delayed or derailed due to lab errors. Such gaps in stakeholder communication and accountability indicate that the prior CBIFS leadership did not fully comprehend the broader implications of the lab's internal failures on the justice system and public trust.

These reports portray a previous CBIFS leadership team lacking the requisite skills and mindset to manage a modern forensic laboratory system. The former CBIFS leaders focused inward and on immediate operational concerns, neglecting the staff's development, the lab's culture, and the essential external relationships that a state crime laboratory system must maintain.

One recurring theme was that CBIFS' culture under previous CBIFS leadership became narrowly centered on productivity and output, often at the expense of employee morale and long-term strategic planning. The past CBIFS leadership placed a strong emphasis on meeting casework targets and delivering forensic results quickly. While a results-driven approach can improve output, in this case, it created unintended negative consequences:

- Overemphasis on Throughput: Staff members reported feeling that, under the previous CBIFS leadership, the quantity of work was valued over thoroughness and complexity. Staff members recognized as high producers were acknowledged as star employees. The drive for throughput, therefore, may have indirectly encouraged lax adherence to protocols and insufficient supervisory scrutiny.

- Decline in Morale: The singular focus on productivity came at a steep cost to staff morale. Many employees felt that their well-being and professional development were not priorities. Staff reported that achievements were measured almost exclusively in terms of individual case numbers, with little recognition for teamwork, innovation, or quality improvements. Employees who raised concerns about workload, process improvements, or ethical and behavioral issues often felt ignored or marginalized, further dampening morale. This one-dimensional reward system undermined motivation and loyalty, as the workforce sensed that former CBIFS leadership cared only about statistics and not the people driving those results.

- Lack of Strategic Planning: Past CBIFS leadership fixated on immediate outputs and a more tactical approach, while strategic planning and process improvement suffered. There was minimal investment in long-term initiatives, such as advanced employee and management training, technology upgrades, or process reforms, that were not directly tied to achieving short-term productivity metrics. This short-sighted approach left the organization ill-prepared to adapt to emerging challenges. In hindsight, the absence of forward-looking planning and continuous improvement meant that when concerns regarding integrity arose in 2014 and 2018, the CBIFS leadership at that time did not have the tools to respond effectively.

In summary, based on interviews and feedback, the past CBIFS leadership's productivity-above-all mindset, though perhaps well-intentioned in delivering forensic results as quickly as possible to the criminal justice system, ultimately contributed to a fragile organizational

culture. The lab became efficient in output, but at the cost of eroded trust, low morale, and vulnerability to crisis. These cultural issues underscore the need for a more balanced leadership approach that values ethics, quality, sustainability, and productivity.

Transition to New CBIFS Leadership and Current Status

A new leadership team formally assumed responsibility for the CBIFS laboratory system in April 2022. Overwhelmingly positive feedback was received from staff interviewed and surveyed during the assessment regarding the current leadership of CBIFS. Employees and stakeholders alike describe the new leaders as a welcome change, citing early signs of improved communication, openness to staff input, and a more supportive approach to management. There is a general sense of optimism amongst the staff that CBIFS' culture and management practices will improve under the new leadership.

However, the new CBIFS leadership team has faced an exceptionally challenging environment early in their tenure. They were just getting established in their new roles when a significant crisis unfolded, specifically, the discovery of extensive evidence mishandling issues and the subsequent criminal investigation of a DNA analyst. This meant that the new CBIFS leaders were thrust into crisis management, rather than having a customary adjustment period to learn, systematically review, and improve laboratory system operations, and establish relationships with stakeholders. They had to focus on urgent tasks such as conducting an extensive quality investigation, triaging the impacted cases and workflows, cooperating with internal and external investigations, addressing staff, CDPS and CBI leadership, public and stakeholder concerns, and pushing through emergency quality assurance and technical changes to prevent future misconduct, all while dealing with a dramatic increase in media interest and presence.

In response to the substantial nature of the identified issues during the Woods quality investigation, a significant portion of personnel from the various units in CBIFS, including all Biological Sciences staff (DNA and Serology), were reallocated to conduct comprehensive reviews of historical casework to determine the scope of the impact. This meticulous, labor-intensive, yet vital process significantly contributed to the accumulation of backlogs across multiple forensic service areas.

Prioritizing these retrospective analyses was imperative, as the potential loss of the laboratory's accreditation posed severe consequences. Such a loss would have necessitated the immediate suspension of scientific analyses, including the inability to

issue forensic reports, and loss of access to critical national databases, including the FBI's Combined DNA Index System (CODIS). As the state-level CODIS repository, any accreditation loss at CBIFS would have negatively impacted every local-level DNA laboratory in Colorado, which would have been detrimental to public safety. Additionally, the reaccreditation process is inherently rigorous and time-consuming, often spanning several years, underscoring the critical importance of maintaining continuous accreditation status.

The current CBIFS leadership now faces a new and pressing challenge: a growing volume of pending cases that require scientific analysis, in an environment with increased public and media scrutiny. This significant risk, if not addressed strategically and with adequate support, could lead to negative consequences. There is a genuine concern that scientific staff, under mounting pressure, may feel compelled to expedite casework at the expense of thoroughness, potentially bypassing established quality control protocols or deviating from best practices. Without deliberate and transparent crisis management, including clear prioritization, workload balancing, and resource allocation, the integrity of the laboratory's scientific work could be jeopardized, placing both case outcomes and public trust at risk.

As a result, the new CBIFS leadership has not yet had the opportunity to fully implement their longer-term vision or create their shared and individual management approaches. Their early tenure has been dominated by responding to the inherited crisis, which has unavoidably delayed proactive initiatives, such as comprehensive staff training programs, culture-building activities, and strategic planning sessions. It is evident that the team is capable and well-intentioned; however, the extraordinary circumstances have required prioritizing damage control over development. This context is crucial in evaluating current performance, as the leadership transition is still underway, and many of the positive changes they aim to implement will take time to materialize once the immediate crisis subsides.

The assessment team found that the past CBIFS leadership team's deficiencies contributed to challenges in personnel management, organizational culture, crisis handling, and stakeholder trust. A tunnel-vision focus on forensic output by former CBIFS management cultivated a workplace that excelled in productivity statistics but suffered in morale, oversight, and adaptability. Encouragingly, the new CBIFS leadership team has been received positively and represents a step in the right direction toward reforming the culture and practices of CBIFS. Nonetheless, due to the timing of their appointments amid a major crisis, they have had limited opportunities to grow into their roles or fully implement long-term improvements.

Recommendation 1:

Continued Support and Resources for CBIFS Leadership	The assessment team recommends that CBIFS leadership have access to ongoing external support and resources as they continue to navigate the ongoing case backlog review and implement necessary reforms. Future evaluations should assess how effectively the management team balances case output with staff well-being and strategic foresight. Strengthening these areas will be essential to restoring public trust in CBIFS' operations and ensuring its mission is carried out with both excellence and integrity.

Quality and Accreditation

Throughout the assessment, it became evident that stakeholders had varying levels of understanding of the concepts of accreditation and quality systems within forensic science laboratories. This observation highlighted an educational gap that, if addressed, could enhance the collective comprehension of these critical components.

To help bridge this gap, an overview of the key components that define a comprehensive quality system is provided. This includes a high-level summary of areas addressed by accreditation, as well as those that fall outside its scope. The following information is intended to offer readers and stakeholders a clearer understanding of the operational standards and expectations applicable to accredited forensic laboratories.

Forensic science accreditation is formal recognition granted by an independent accrediting body, affirming that a forensic science service provider, such as the CBIFS, meets established international standards, most notably ISO/IEC 17025:2017 for testing and calibration laboratories. Additionally, the CBIFS holds accreditation under the ANSI National Accreditation Board (ANAB) and adheres to the FBI Quality Assurance Standards for DNA testing and DNA databasing laboratories. This accreditation signifies that the laboratory has demonstrated technical competence, adheres to rigorous quality management systems, and consistently produces reliable and valid results.

Maintaining accreditation is not merely a formal requirement; it is essential for the laboratory's ability to conduct forensic testing that is admissible in court. CBIFS appropriately prioritizes maintaining accreditation, recognizing its critical role in ensuring the laboratory’s ability to perform essential forensic scientific testing, ensure public safety, and support the justice system in Colorado. Loss of accreditation can severely disrupt or halt operations, often resulting in the suspension of in-house testing, which may lead to the outsourcing of essential forensic scientific testing. In some scientific disciplines, outsourcing essential forensic scientific testing may not even be possible, as there are very few options available. Because reaccreditation is a demanding and resource-intensive process, CBIFS’ continued commitment to preserving accreditation is vital to upholding both scientific integrity and public safety.

What Forensic Science Service Provider Accreditation Is

- Independent Validation of Competence**:** Accreditation entails a comprehensive evaluation by an impartial third party to ensure that the laboratory's personnel, methodologies, validations, performance checks, equipment, consumables, and procedures comply with internationally recognized standards.

- Quality Management System Implementation**:** Accredited laboratories must establish and maintain comprehensive quality management systems. These systems must include documented procedures, regular internal audits, adherence to impartiality, competency testing, proficiency testing, management reviews, and continual improvement to uphold the integrity of forensic analyses.

- Enhanced Credibility and Trust**:** Accreditation provides assurance to the judicial system, law enforcement agencies, and the public that the laboratory operates with a high level of impartiality, professionalism, and scientific rigor, thereby bolstering confidence in forensic evidence presented in legal proceedings.

- Eligibility for Federal Programs**:** Accreditation is a prerequisite for participation in federal initiatives, such as contributing DNA profiles to the FBI's Combined DNA Index System (CODIS) and qualifying for specific grant opportunities, which significantly impact resources.

What Forensic Science Service Provider Accreditation Is Not

- Not an Absolute Guarantee of Error-Free Operations**:** While accreditation reflects compliance with high standards, it does not guarantee error-free operations, as it may still be susceptible to unintended actions, methodological limitations, or intentional misconduct. For the CBIFS system, ongoing oversight and rigorous quality assurance, through the newly expanded quality structure, remain essential to upholding the integrity and reliability of forensic work.

- Not a Substitute for Individual Certification**:** Accreditation pertains to the laboratory as an entity and does not certify or provide licensure for the qualifications or competencies of individual forensic practitioners. Separate certification processes assess and validate the expertise of individual analysts.

- Not Uniformly Mandated Across All Jurisdictions: The requirement for forensic laboratory accreditation varies by region and discipline. In some areas, accreditation is mandatory for specific analyses (e.g., DNA testing); in others, it remains a voluntary process.

- Not a One-Time Achievement**:** Accreditation is an ongoing commitment that requires regular re-evaluations, procedure updates, and responsiveness to emerging scientific advancements to ensure continued compliance with evolving standards.

Forensic science accreditation is a critical component in establishing and maintaining the credibility and reliability of forensic laboratories. However, it should be viewed as part of a broader framework of quality assurance, continuous improvement, and professional development to ensure the highest standards of forensic practice.

It is worth noting that, under its relatively new leadership, CBIFS has undergone significant structural enhancement to its quality operations. Specifically, CBIFS has invested in and implemented an expanded quality assurance framework, which includes allocating additional full-time positions exclusively responsible for quality oversight, continuous improvement, and compliance monitoring. This structural shift represents a notable commitment to enhancing scientific integrity, promoting transparency, and aligning with best practices in modern forensic science. By dedicating more resources to quality assurance, CBIFS is better positioned to identify and mitigate potential risks, respond to evolving legal and scientific standards, and foster a culture of accountability and excellence.

While these changes reflect strategic and forward-looking initiatives, staff feedback highlighted several areas of improvement. Staff expressed frustration with unclear or inconsistent communication regarding quality-related issues and outcomes. Additionally, concerns were raised about inconsistent or insufficiently standardized access to Quality Incident Reports (QIRs), even when the content is unrelated to personnel matters. This limited transparency negatively impacts analysts' ability to adequately prepare for cases, particularly in court settings, and compromises the laboratory's ability to identify recurring trends or systemic quality issues effectively.

Additionally, a significant proportion of the quality incidents received and reviewed by the assessment team were concentrated within the Evidence Unit. The most frequently cited

non-conformance was to Evidence Policy 1 (EP1) under section D.7.a, which pertains to procedural issues in evidence processing and handling. This was an area in which multiple staff members observed and reported across multiple laboratories, indicating a systemic risk that the Quality Unit should immediately address. Additionally, numerous staff members reported that documentation errors occurred within the Evidence Unit, which were identified once the cases were transferred to the analytical units, indicating an inefficiency that could be addressed sooner within the Evidence Unit.

During the assessment, it became evident that important structural changes in the Quality Unit have not been widely communicated or fully recognized by external stakeholders. Several individuals interviewed were unaware of the expanded quality structure or unclear about its purpose and scope. This lack of awareness may contribute to lingering perceptions from past operational challenges and hinder confidence in the CBIFS' current direction.

Stakeholder feedback also reflected a general lack of awareness regarding the broader operational impact of the internal quality investigation related to the Woods matter. While CBIFS appropriately limited disclosure of case-specific details, many stakeholders, including those in partner agencies and the public, were unaware of the magnitude of the effort, the extensive volume of materials reviewed, and the broad cross-disciplinary staff engagement required. As a result, there was a limited understanding of how this high-priority quality investigation temporarily redirected significant resources away from routine operations across CBIFS, contributing to increased turnaround times and growing backlogs. More transparent communication with stakeholders about these second- and third-order impacts would have helped them better contextualize CBIFS' performance during that period.

Despite areas of disconnect, both stakeholders and staff expressed appreciation for CBIFS' commitment to maintaining accreditation and upholding scientific integrity. Stakeholders, however, emphasized the need for more transparent and proactive communication from CBIFS, particularly regarding major internal initiatives that carry external operational impacts. Enhanced clarity around these efforts would foster stronger collaboration, build trust, help external partners better understand delays, align with shared goals, and reinforce support for CBIFS' mission.

Staff also acknowledged the strong leadership within the Quality Unit and expressed a deep appreciation for the progress made in that area. They recognized the deliberate effort to

elevate quality as a core value within CBIFS, underscoring the importance of continued focus and investment in this domain.

Recommendation 2:

Review the Frequency of Non-Conformities Regarding Evidence Policy under D.7.a.	It is recommended that under the oversight of the Quality Unit, a targeted review and refinement of procedures under Evidence Policy 1 (EP1), particularly those outlined in section D.7.a., is conducted to identify if there are any systemic procedural gaps in evidence processing and handling and to either correct or modify the workflow or procedure. This activity may involve a risk assessment.

Recommendation 3:

Develop a Communication Strategy Around the Quality Assurance Program Enhancements	It is recommended that CBIFS develop a thoughtful, targeted, and proactive communication strategy to ensure staff, as well as internal and external stakeholders, including law enforcement, prosecutors, defense counsel, and members of the judiciary, are informed of the recent enhancements made to the quality assurance program. Proactive and transparent communication regarding these structural improvements will help build a broader understanding and reinforce confidence in CBIFS' ongoing commitment to scientific excellence, accountability, and continuous improvement.

Recommendation 4:

Establish a Recurring Training Academy or Symposium for Stakeholders	This initiative would serve as a platform to keep stakeholders informed about CBIFS developments, clarify capabilities, discuss operational health, and collaboratively address challenges. The proposed forum could convene a diverse array of stakeholders, including prosecuting attorneys, judges, defense attorneys, innocence projects, the ACLU, university partners, law enforcement agencies, fellow forensic science service providers, and coroners and medical examiners. By bringing together these key participants, the symposium would foster stronger relationships, encourage collaborative opportunities, and work towards rebuilding trust across the criminal justice system. Regular engagement through such a symposium would promote transparency, enhance mutual understanding, and support the

	continuous improvement of CBIFS. It would also provide a structured environment for stakeholders to stay informed about changes, share their perspectives, and contribute to the evolution of forensic practices within the state.

Recommendation 5:

Communicate the Extensive Scope and Resource Demands of the Woods Quality Investigation	It is recommended that CBIFS communicate to its partners the extensive scope and resource demands associated with the case reviews conducted as part of the high-priority Woods quality investigation. It became clear during the assessment that many stakeholders were not fully aware of this effort's complexity, scale, and far-reaching implications, including the substantial volume of materials reviewed and the breadth of staff involvement. Personnel from the Biological Sciences section and staff from multiple disciplines across the laboratory system contributed significantly to this undertaking, dedicating a substantial amount of time and expertise. This comprehensive review not only played a critical role in supporting the preservation of CBIFS' accreditation status but also had a secondary impact on routine operations, contributing to increased turnaround times and the accumulation of a backlog. Transparent communication about the nature and consequences of this effort would help contextualize current operational challenges and foster greater understanding and support among external stakeholders.

Recommendation 6:

Make QIRs Accessible for all CBIFS Staff	It is recommended that CBIFS consider giving all staff access to QIRs. If access to QIRs were transparent and readily available, staff concerns would likely not have emerged so strongly in the assessment materials. Several assessors requested that staff pull up QIRs in the software and noted some inabilities. However, it was made very clear that CBIFS is moving toward a more transparent external platform, with plans to exhibit QIRs in an accessible manner on the CDPS website. The assessment team hopes that this transparency will also extend to all staff members.

Recommendation 7:

Integrate all Technical Leaders into the Quality Unit	It is recommended that CBIFS explore aligning its quality oversight model by integrating technical leaders from all forensic disciplines more closely within the quality assurance framework in the Quality Unit. Specifically, it is recommended that program managers in complex disciplines, such as Toxicology and DNA, focus on overseeing technical programs and maintaining discipline-specific quality, rather than assuming the additional responsibility of direct staff supervision. This would allow these subject matter experts to devote more attention to the scientific integrity, validation, and regulatory compliance of their respective programs, which are critical functions that support the overall effectiveness of the laboratory system.

CBI Forensic Services Committee

The inaugural meeting of the CBI Forensic Services Committee was convened in April 2025. Forward Resolutions commends the State of Colorado and CBIFS for taking this important and strategic step toward strengthening its forensic science infrastructure.

Although the committee is newly established, the assessment team is confident that its formation represents a significant advancement in fostering transparency, accountability, and excellence in forensic science. A well-structured advisory body can serve as a critical resource, supporting scientific integrity, enhancing operational quality, and contributing to Colorado's continuous improvement of forensic services.

Forward Resolutions affirms the principle that the advisory aspect of the committee will not compromise the scientific independence of CBIFS. Instead, when properly constructed, such committees can enhance scientific acumen, improve communication with stakeholders, and help ensure that forensic service providers are both understood and adequately supported. This committee is an opportunity to educate the broader public safety and justice communities about the complex and essential work forensic scientists perform, and to ensure that policy, resourcing, and expectations are grounded in science.

CBIFS is also applauded for the committee’s early engagement with the National Association of Forensic Science Boards (NAFSB) and its efforts to review national best practices. This forward-thinking strategy demonstrates a strong commitment to building an advisory model rooted in transparency, scientific rigor, and operational excellence.

The assessment team looks forward to observing the committee’s progress and is optimistic about its potential positive impact on the future of forensic science in Colorado.

Culture And Policy

The CBI and its Forensic Services section (CBIFS) have faced increased attention regarding internal culture and the systems in place for oversight and accountability of forensic analysts. Recent events have underscored the importance of a timely and transparent response to internal concerns, particularly those involving scientific practices and performance. While concerns related to oversight have been raised in the past, the broader organizational challenge lies in creating a culture where feedback is consistently welcomed and acted upon.

The assessment team examined cultural dynamics at multiple levels—within CBIFS, across CBI, and within the broader parent agency, CDPS. The assessment team evaluated how concerns are surfaced and addressed, as well as how current practices either support or undermine important values, such as scientific independence, psychological safety, and openness in operations.

CBIFS:

A clear and persistent theme emerged from staff, managers, and executive leadership throughout this assessment: the culture within CBIFS is marked by ongoing tension. While commendable efforts are underway to modernize operations and expand capacity, these initiatives are unfolding within a workplace environment still grappling with the aftershocks of considerable internal disruption.

The foremost concern is a pervasive lack of trust and transparency, particularly among mid-level and frontline staff. Many employees reported learning of significant organizational developments and decisions (i.e., the “why” behind decisions made) through external or informal channels, rather than through timely and direct internal communication and courageous conversations. This communication void has deepened skepticism and strained the relationship between staff and management. Leaders at various levels, especially those newer to supervisory roles, often struggle to articulate the rationale behind key decisions. Without confidence or experience, some default to issuing directives without context, further widening the trust gap and stifling productive dialogue.

Concerns about inequitable accountability and perceived favoritism also emerged as deeply embedded challenges. While quota systems were designed to standardize expectations and promote productivity, they are inconsistently applied. Some scientists reportedly select lower-effort cases to meet performance targets. In contrast, others are assigned to more complex and demanding workloads, which fosters resentment, division, and a sense of unfairness. These disparities have become particularly pronounced in the wake of the Woods quality investigation, which introduced an extraordinary amount of stress on CBIFS staff.

Communication breakdowns further compound these issues. Though individual supervisors were praised for their accessibility and responsiveness, the broader organization suffers from an inconsistent and often opaque communication structure. Staff frequently expressed confusion over evolving policies, shifting expectations, and daily workflow processes. This was particularly evident in areas affected by outsourcing or changing training requirements. This lack of clarity contributes to disengagement and fuels operational uncertainty.

Additionally, the organization appears to miss opportunities for constructive conflict and growth. Rather than viewing moments of tension as opportunities for shared learning, leaders were often described as becoming defensive or retreating from difficult conversations. Meeting facilitation surfaced as a notable area for improvement, with many employees expressing a desire for more inclusive, transparent, and well-structured dialogue across leadership levels.

Closely tied to these challenges is a culture that cannot devote adequate time and attention to innovation and feedback. While mechanisms such as innovation workflows and feedback surveys are in place, many staff members report that these efforts feel performative. Ideas are solicited but rarely implemented, and employees often fear retaliation for speaking candidly. This sense of futility discourages participation and reinforces a “check-the-box” mentality.

As mentioned, there is a perception of a persistent and detrimental emphasis on productivity over well-being. Forensic scientists describe overwhelming workloads, increasing pressure from court demands, and the emotional toll of prior CBIFS leadership

failures, all of which are compounded by a singular focus on numbers. Some analysts push themselves to meet metrics while sacrificing personal wellness.

Across these cultural challenges, several structural and operational gaps have become clear. Leadership is spread thin. There is a need for more management positions in all locations due to the scale and complexity of work. Several laboratory managers currently have a span of control that exceeds widely accepted industry standards for the effective supervision of complex, non-routine scientific work. In addition to managing a high volume of direct reports, they are responsible for multiple disciplines as well as a broad range of administrative, operational, and strategic functions.

Research in organizational management and technical environments generally supports a span of control of five to eight direct reports for roles involving high-complexity tasks, indicating that the current structure may pose challenges to maintaining optimal oversight, staff development, and operational efficiency. This extends beyond routine personnel oversight to include responsibilities such as training coordination, outsourcing management, quality system implementation, validation oversight, and participation in high-stakes casework. The result is an overstretched management layer that cannot consistently provide engagement, coaching, and accountability, thereby hindering the development of a high-functioning, responsive, and healthy organizational culture. Additionally, technical leaders are often expected to manage training, validations, casework, and provide oversight with insufficient support.

There is also a lack of a dedicated training infrastructure. Trainees reported disorganized and inconsistent training programs, as well as minimal individualized support. The reliance on overextended technical leaders and external partners to assist with staff training has created gaps in both the caliber and consistency of forensic training. Regarding workforce development, staff shared a desire for clearer career pathways, greater recognition of specialized contributions, and more equitable access to training and conferences. It was reported that professional growth feels limited, particularly for those not working in the Arvada Laboratory.

Recommendation 8:

Increase the Number of Laboratory Manager Positions	A consistent and pressing operational concern identified across all laboratory locations is the insufficient number of laboratory manager positions relative to the volume of personnel, disciplines, and operational demands within CBIFS. The current supervisory structure is inadequate to support the growing complexity and scale of forensic operations. The assessment team recommends immediately adding at least one to two laboratory managers to each of the Arvada, Pueblo, and Grand Junction laboratories. It is recommended that there also be a commitment to re-evaluate and adjust leadership staffing ratios as future hiring occurs. Staff at these locations expressed concerns about delayed decision-making, limited access to leadership, and uneven distribution of support due to the sheer volume of responsibilities placed on too few individuals. This not only impacts morale and communication but also jeopardizes the ability to effectively implement training plans, regularly monitor scientific quality of work, and respond to the day-to-day needs of staff. Incorporating additional management roles as part of any staffing expansion is a practical necessity and a strategic investment in organizational resilience, employee support, and operational excellence.

As the "Right-Sizing" initiative continues and additional scientific personnel are added to the system, management positions must be incorporated proportionally into workforce expansion plans.

Recommendation 9:

Implementation and Sustainment of a Values-Driven Leadership Development Program	It is recommended that CBIFS consider working with an external consultant to facilitate the implementation of a values-driven leadership development program specifically designed for the CBIFS leadership and management team. It could focus on tactical and administrative leadership competencies, as well as the deeper interpersonal and cultural dimensions of effective leadership. Central to this program should be targeted training and coaching in trust-building, effective coaching, conflict management and resolution,

	accountability, meeting facilitation, and psychological safety. These skill sets are essential for navigating the complexities of forensic science supervision, particularly in an environment where morale, communication, and transparency have been challenged.

Importantly, coaching and training should not be limited to lecture-style content, but should also include hands-on tabletop exercises, scenario-based role-playing, and facilitated discussions rooted in the real-world dynamics that forensic leaders face. These immersive, practice-based components will enable participants to engage in challenging conversations, navigate interpersonal conflicts, and apply coaching techniques in a structured and supportive environment. Such exercises also help normalize discomfort, foster peer accountability, and create a shared vocabulary and expectation for leadership behavior moving forward.

The program should be iterative and customized, co-created with CBIFS leadership input to ensure relevance, ownership, and long-term credibility. When delivered effectively, this effort can serve as a healing mechanism, rebuilding relationships and restoring alignment, while also serving as a launchpad for a healthier, more resilient organizational culture. Equipping managers with the skills, support, and structure they need to lead intentionally will be vital to sustaining any broader reform efforts within CBIFS.

CBI:

The CBI has outlined an ambitious and multi-year vision in its strategic plans, spanning from 2022 through 2024. These plans focus on organizational growth, enhanced customer service, increased innovation, and strengthened partnerships with the public safety community. The centerpiece of both strategic documents is the continued implementation of the "Right-Size" Decision Item, an initiative aimed at adding 107 new staff positions, with some positions allocated to the Forensic Services sections.

This expansion represents an optimistic and forward-leaning investment in public safety infrastructure. However, when considered alongside internal and external sentiments shared by CBIFS staff and stakeholders, key gaps emerge that threaten the full realization of the strategic goals.

- Misalignment Between Expansion and Operational Readiness: While the plans emphasize workforce growth, they do not adequately address whether the agency's

facilities, technology infrastructure, financial resource allocation, or leadership culture are prepared to support such a significant increase in personnel. For instance, the remodel of the Pueblo Laboratory, a critical infrastructure project, did not include areas of opportunity, including space for a Firearms Unit. The assessment team went on-site, toured the space, and quickly realized that additional opportunities had not been considered for the space and may not come to fruition for a few years. This lag in infrastructure development risks undermining the very benefits the Right-Sizing effort intends to deliver. Without adequate physical space and support systems, onboarding new staff may compound rather than relieve operational stress.

- Ambitious Turnaround Time Goals Without a Transparent Path: A major goal of the 2024 plan is to reduce forensic turnaround times to 90 days by the end of 2025. While commendable, this target may be viewed as unrealistic by internal scientific staff, who are already grappling with complex case types, resource limitations, and evolving legal expectations. Although the plan references productivity reviews and the potential use of case coordinators, it lacks clarity on how those efforts will account for high-profile, resource-intensive investigations or backlogged disciplines. Importantly, there is no mention of changes in submission or triage policies, prioritization models, or workload balancing strategies, which are key tools for labs under demand pressure. CBIFS leadership acknowledged this constraint and is diligently working to identify areas that can be outsourced to support their long-term strategic goals.

- Gaps in Internal Culture and Scientific Leadership Development: Both strategic plans briefly mention staff wellness, leadership, and management training. However, they stopped short of directly addressing the deeper cultural concerns that many forensic professionals have shared. There is no mention of a structured career progression path for scientists, nor is there any investment in internal scientific leadership development. These absences suggested a top-down approach that could alienate a workforce already burdened by high expectations and public scrutiny.

CBI's strategic vision reflects admirable ambition and a clear desire to improve service to Colorado's public safety community. Yet, that vision does not always align with the lived experiences of CBIFS staff. There is a discernible disconnect between high-level strategic goals and the operational constraints experienced at the lab bench level.

Without accelerated infrastructure development, transparent and science-informed policymaking, and substantial investment in scientific leadership and staff engagement, the laboratory's long-term performance and the morale of its forensic services staff may suffer. To transform CBI into a national leader in forensic science, the strategic plan must evolve from aspirational blueprints to practical, data-informed, and culturally grounded strategies that can be implemented within the timeframe.

A thorough review of CBI internal directives, Human Resources-related policies, onboarding practices, and early intervention frameworks revealed cultural and procedural gaps. If left unaddressed, these deficiencies may negatively impact morale, undermine trust in leadership, and hinder meaningful progress in establishing a healthy and sustainable organizational culture. Several areas raise particular concern: the structure of HR access, the apparent dormancy of the Early Warning System (EWS) (see below), the tone and gaps in new employee onboarding, and possible over-reliance on formal internal affairs investigations as a substitute for basic HR engagement. Additionally, the assessment team noted the need for clear overtime policies to be implemented, ensuring that staff and management expectations are aligned.

Employees are repeatedly instructed to report concerns through the chain of command, as outlined in multiple CBI directives, including the *Internal Affairs Directive* (1.3), the *Discipline and Grievance Directive (2.5)*, and the *Progressive Discipline Standard Operating Procedure (SOP)*. While the policies do not explicitly forbid contacting HR, the overwhelming emphasis on supervisor reporting and escalation routes gives the impression that HR is a last resort, not a partner in employee support. This is particularly problematic in a workplace environment where supervisors may themselves be the source of conflict or concern.

In such a model, HR is not positioned as a proactive resource or a confidential sounding board but rather as a bystander to formalized processes controlled by leadership in business areas. Interviews with staff suggest that employees are often unclear about when or how they may contact HR directly and, in some cases, fear that doing so without supervisory permission could lead to retaliation or career consequences. Interviews with CDPS HR and Executive Leadership identify this as imperative for improvement.

CBI's *Early Warning System (Directive 1.6)* is a thoughtfully constructed tool designed to identify patterns of behavior or performance issues before they evolve into formal

misconduct. The policy outlines a wide range of triggers, including emotional outbursts, excessive absences, public complaints, and formal discipline, that, if tracked and reported appropriately, could facilitate timely support or correction.

However, despite this clear framework, interviews and feedback from CBIFS staff suggest that the system is not being actively used or understood. The staff appear largely unaware of its existence, as it was rarely, if ever, mentioned during interviews conducted by the assessment team. This lack of awareness suggests a potential risk that concerning behavior could be overlooked, informally tolerated, or escalated too quickly into formal disciplinary action, therefore missing the opportunity for early intervention and rehabilitative support. During the interviews with multiple agency-wide stakeholders, this was identified as an opportunity for improvement.

Relatedly, the CBI *Internal Affairs Directive (1.3)* outlines a formal investigative process involving their Office of Professional Standards (OPS) for a wide range of issues, including minor policy violations, interpersonal disputes, and concerns about professionalism. While the intent is to uphold integrity and uniform standards, relying on formal investigations rather than informal HR reviews, conflict resolution, or supervisory coaching may have unintended consequences. Through policy review and CDPS agency-wide interviews, the assessment team identified a risk that Internal Affairs investigations, or "IAs," are being utilized when basic HR mediation or early-stage intervention could suffice. This approach may pose an unintentional risk, which could escalate tensions, damage morale, and perpetuate a climate of mistrust and fear, while also unnecessarily consuming organizational resources. This also has significant agency implications at the large-scale level, where executives may be unaware of issues and unable to intervene and assist until it is almost too late. When staff and leaders believe that minor issues immediately trigger OPS involvement, they are less likely to speak up, less likely to seek help, and more likely to disengage from the organization altogether.

While CBI's onboarding process is thorough regarding administrative and technical setup, it fails to address the human-centered elements critical to building trust, connection, and cultural alignment. Resources such as the *New Employee Onboarding Guide* and *New Hire Expectations* are heavily weighted toward procedural tasks, system access, equipment distribution, and policy documentation. Yet, they offer little in terms of personal integration or cultural orientation.

The current approach reads more as employee orientation than true onboarding. It introduces the tasks of the job but not the people, values, or support systems that shape the organizational environment. New hires are not formally introduced to key contacts in CDPS Human Resources, nor are they provided with guidance on psychological safety, inclusive communication, or the agency's core values in practice. There is no structured opportunity to provide early feedback, no peer mentorship model, and no facilitated sessions focused on culture-building or open dialogue. Although professionalism is referenced, there is no clear forum where new employees can safely raise questions, express concerns, or seek clarification on workplace dynamics. This absence may send the unintended message that while compliance matters, connection does not. This is an especially harmful signal within a workplace already experiencing cultural strain.

Moreover, the messaging around internal transfers further complicates the perception of career mobility. Transfer documentation often includes cautionary language about the potential for salary reductions or loss of credited experience. While these provisions may reflect necessary fiscal policy, they risk discouraging lateral or developmental moves and create the impression that professional growth comes with penalties rather than support.
To strengthen its onboarding process, CBIFS should view this critical phase not just as a checklist of tasks but as a strategic opportunity to embed new employees into a culture of trust, transparency, and belonging. This includes offering mentorship, reinforcing values-based expectations, and creating safe, early touchpoints for feedback and dialogue.

Additionally, the assessment team noted several instances in which staff consistently logged identical overtime hours across multiple years, suggesting either a lack of oversight or a permissive, informal approach to overtime management. Such patterns underscore the need for a structured framework that strikes a balance between flexibility and accountability. Staff should generally not work excessive hours in a single day or over extended periods of time. Adequate rest between shifts should be implemented to protect against fatigue and cognitive strain. Overtime should be used strategically to address specific operational needs, such as time-sensitive casework, staffing shortages, or emergent public safety demands, while avoiding routine overreliance on any single staff member or unit.

Establishing daily, weekly, and pay-period limits creates a safeguard against employee burnout and ensures fair access to overtime opportunities across teams and disciplines. When exceptional circumstances require extended overtime, these instances should be approved in advance and supported by clear operational justification. These boundaries

would reinforce CBIFS' commitment to responsible resource management, employee support, and the continued delivery of high-quality forensic services in a safe and sustainable work environment.

These findings suggest an internal system that is more focused on control and compliance than on connection and care. While HR exists within the organizational structure, it remains functionally siloed from daily employee engagement and is perceived as inaccessible. Although well-defined in policy, the Early Warning System does not function as an effective early intervention mechanism in CBIFS. New employees are introduced to the organization through a process focused mainly on administrative setup, rather than being welcomed into a culture of safety, support, and empowerment. As a result, Internal Affairs appears to be absorbing matters that might otherwise be more appropriately addressed through proactive HR engagement or informal supervisory support.

Foundationally, CBIFS could greatly benefit from an Ombudsman position. Establishing an Ombudsman is not to replace existing mechanisms, such as Human Resources or formal grievance processes, but rather to complement them, filling a vital gap between informal concerns and formal investigations. An Ombudsman offers CBIFS employees and stakeholders a single point of contact as well as a safe and confidential venue to discuss workplace challenges, interpersonal conflicts (staff to staff, staff to stakeholder, stakeholder to staff, etc.), cultural concerns, or issues that may not rise to the level of misconduct but still have a profound impact on morale, retention, and overall organizational health.

Adding an Ombudsman can offer unique benefits to a forensic science service provider, where neutrality, trust, and scientific independence are paramount. It allows for early intervention and informal resolution before conflicts escalate. It also provides leadership with aggregated, de-identified insight into recurring themes or structural challenges that may otherwise go unreported. By offering an alternative to formal reporting chains, the Ombudsman reinforces a culture of openness and psychological safety, which is particularly valuable in an environment recovering from internal upheaval and leadership transitions.

Forward Resolutions also recognizes the need to be transparent about potential limitations. An Ombudsman does not have disciplinary authority and would not conduct formal investigations. To avoid role confusion, a clear communication plan must accompany the rollout of this position, defining the distinct roles and responsibilities of the Ombudsman in

relation to other existing functions. Confidentiality must be upheld rigorously, except in cases involving imminent harm or illegal activity. Additionally, a strong commitment from executive leadership is essential to ensure that recommendations from the Ombudsman are not only heard but seriously considered and, where appropriate, acted upon.

Introducing an Ombudsman at this moment represents a meaningful investment in the people who carry out the CBIFS' scientific mission. It signals to staff and stakeholders alike that their voices matter, that leadership is listening, and that informal support and resolution mechanisms are permitted and encouraged. Done thoughtfully, this role could play a central part in helping CBIFS rebuild internal trust, strengthen scientific independence, and foster a more transparent and resilient organizational culture.

Recommendation 10:

Facilitate a Deliberate Reintroduction of CDPS HR's Services and Resources	It is recommended that staff and programs within CDPS Human Resources be reintroduced to CBIFS staff. This will foster relationship-building between CDPS HR staff and CBIFS staff, increasing the visibility of CDPS HR's supportive functions across the organization.

Recommendation 11:

Development of an Advanced Agency-wide Onboarding Program	The development of an enhanced onboarding program should be considered. In partnership with an external consultant, CBIFS leadership, CDPS HR, CBI leadership, and CDPS executive leadership, this initiative would foster an agency-wide orientation and ensure that new employees feel connected to CBIFS and the broader mission of the Colorado Department of Public Safety.

Recommendation 12:

Implement Clear Boundaries Around Use of Overtime	CBIFS should consider implementing clear boundaries around overtime use to support staff well-being, ensure operational efficiency, and uphold the highest standards of scientific integrity. Establishing formal policy or guidelines will help ensure that overtime is applied equitably, managed responsibly, and aligned with individual capacity and organizational sustainability.

Recommendation 13:

Ombudsman Position Dedicated to CBIFS	It is recommended that CBIFS consider adding an Ombudsman position. This position can be a confidential, neutral, and independent point of contact for CBIFS staff, and they are encouraged to report directly to the Deputy Director of CBIFS, thereby maintaining operational independence while ensuring high-level visibility and executive support. It may be beneficial to pilot this position for an initial 18-24-month term, during which time the role's utilization, perceived trust, and organizational impact can be evaluated. This pilot period would allow for adjustments in scope or structure as needed, while providing a tangible resource for employees during the cultural rebuilding process.

All these areas of improvement are addressable, but doing so requires intentional leadership. CDPS Human Resources has valuable expertise that staff and leadership can and should leverage. Rebuilding this relationship is critical to CBIFS' long-term success. By elevating CDPS HR as an accessible and trusted partner, reinforcing consistent use of the Early Warning System, reimagining onboarding as a cultural integration process rather than a checklist, and establishing an Ombudsman position, CBIFS can take concrete steps to rebuild trust, support its workforce, and cultivate a healthier, more resilient internal culture.

Legal Considerations

Legislation:

Colorado has enacted legislation that governs the activities of crime laboratories to ensure the integrity of forensic processes and the admissibility of evidence in legal proceedings. Key statutes and regulations include:

- Forensic Science Integrity Act (HB25-1275): Enacted in 2025, this act mandates that crime laboratory employees report any witnessed or discovered misconduct to their supervisors or laboratory directors within 7 days. The act also requires laboratory directors to notify prosecutors of such misconduct, ensuring transparency and accountability in forensic operations. Additionally, it establishes procedures for notifying defense attorneys, victims, and defendants in pending cases and when evidence misconduct is identified, and provides a pathway for defendants to seek post-conviction relief if misconduct is found to have impacted their cases.

- Admissibility of Laboratory Test Results (Colo. Rev. Stat. § 16-3-309)**:** This statute outlines the conditions under which laboratory reports and findings are admissible in court proceedings. It specifies that such reports can be received as evidence in any court, preliminary hearing, or grand jury proceeding with the same force and effect as if the laboratory personnel had testified in person, provided certain conditions are met.

- Preservation of DNA Evidence (Colo. Rev. Stat. § 18-1-1104)**:** This statute dictates the manner and location for preserving DNA evidence. It requires that DNA profiles developed by accredited laboratories in Colorado be properly preserved and that law enforcement agencies maintain sufficient quantities of DNA evidence to facilitate future testing, thereby safeguarding the rights of defendants and the integrity of the judicial process.

- Evidence Collection in Connection with Sexual Assaults (8 CCR 1507-29)**:** Outlined in the Code of Colorado Regulations, these rules apply to all personnel involved in the collection, transportation, storage, forensic analysis, investigation, and judicial processes related to forensic medical evidence in sexual assault cases. The

regulations mandate that forensic medical evidence must be submitted to an accredited crime laboratory within 21 days of receipt, unless specific exceptions apply, to ensure timely and accurate processing.

- Functions of the Colorado Bureau of Investigation (CRS 24-33.5-412): Outlines the core operational responsibilities of the CBI, granting it broad authority to support criminal justice efforts across the state. It outlines CBI's role in conducting criminal investigations, managing criminal history records, processing fingerprints and identification data, performing firearm background checks, and assisting with arson investigations. Importantly, the language forms the legal foundation for CBI's forensic science functions, specifically CBIFS. It empowers the agency to operate and maintain critical databases and identification systems that are central to a full-service forensic science service provider. By codifying CBI's ability to assist local law enforcement agencies, the statute enables robust interagency cooperation. It allows CBI's forensic experts to contribute specialized analytical support in complex or resource-intensive investigations. It also reinforces CBI's position as a centralized, professional forensic authority responsible for upholding scientific and investigative standards across Colorado.

- State Toxicology Laboratory (CRS 24-33.5-428): Establishes CBI's responsibility to operate a state toxicology laboratory, primarily to support law enforcement in the detection and analysis of alcohol and drug-related offenses, such as DUI cases. It authorized CBI to charge fees for toxicology services, directing those revenues into a dedicated fund to support laboratory operations. The statute also ensured that collected fees are appropriated annually to sustain and expand the laboratory's capabilities. Beginning in Fiscal Year 2019-20, the funding mechanism for the State Toxicology Laboratory was altered. The laboratory's operations, previously supported by fees collected and deposited into the State Toxicology Laboratory Fund, were entirely refinanced using funds from the Marijuana Tax Cash Fund (Colorado Revised Statutes § 39-28.8-501). This change was approved by the Joint Budget Committee in the Department's Decision Item R-05. As a result, the State Toxicology Laboratory Fund ceased collecting revenue and fully expended its remaining balance in FY 2019-20.

- DNA Retesting and Sexual Assault Kit Backlog (CRS 24-33.5-432): In response to growing public concern over untested evidence, this statute directs $3 million in

funding to CBI (and, thus, CBIFS) to retest DNA evidence and resolve the backlog of untested sexual assault kits. It authorizes CBI to partner with external, accredited forensic laboratories (meeting ISO/IEC 17025 standards) to accelerate this work. The statute also mandates transparency through the development of a public-facing dashboard, which has been completed, and requires regular progress reports. This provision significantly enhances CBI's ability to restore public trust in forensic processes by demonstrating accountability and commitment to correcting past deficiencies.

While prosecutors have the authority to request retesting, especially when preparing for trial or during post-conviction reviews, the initiative to retest is not exclusively theirs. Crime laboratories, adhering to their internal protocols and quality assurance standards, can and do initiate retesting to uphold the accuracy and credibility of forensic evidence. As mentioned above, Colorado Revised Statutes § 24-33.5-412 empowers CBIFS to establish and operate scientific crime detection laboratories and conduct forensic examinations of evidence submitted by law enforcement. Statutory language grants the agency broad discretion to perform analyses and comparisons necessary to support the administration of justice. This includes the ability to reanalyze or retest previously examined evidence when required to ensure scientific accuracy, preserve evidentiary integrity, or comply with best practices in forensic quality management.

As an accredited laboratory system, CBIFS operates in accordance with the requirements of the international standard ISO/IEC 17025. These standards impose obligations on forensic laboratories to uphold rigorous quality assurance systems. In cases where errors, misconduct, or questions about the reliability of prior casework emerge, laboratories are expected, and in most cases required, to undertake corrective actions. Such actions may include the retesting of evidence to validate results, clarify uncertainties, and demonstrate transparency in response to concerns. CBIFS' authority to initiate retesting is well supported by statute, reinforced by accreditation standards, and validated by its recent actions to address internal concerns. Such authority is not only permissible but also essential for maintaining accountability, preserving the evidentiary value of forensic results, and ensuring confidence in the outcomes that inform critical legal decisions. The assessment team affirms this authority and supports its continued and transparent application when warranted.

In interviews with a cross-section of the Colorado court system stakeholders, including representatives from the defense bar, prosecuting attorneys, and members of the judiciary, it was identified that current Colorado Revised Statutes do not contain explicit language mandating that forensic laboratories, including CBIFS, treat defense-requested testing results as confidential or privileged to the defense. The lack of statutory clarity in this area may result in scenarios where test results commissioned by the defense become accessible to the prosecution, potentially impacting the defense's strategic approach and case preparation. Furthermore, the state should consider, through administrative rules or statutory language, clarifying the circumstances under which defense-obtained forensic results may be disclosed. Such provisions would ensure that any disclosure of defense-acquired forensic results is at the discretion of the defense, thereby safeguarding the integrity of the defense's investigative process.

It was consistently noted that the relationship between CBIFS and prosecuting agencies across the state remains strong. Many prosecutors expressed a high degree of respect and trust in the scientific staff, emphasizing the professionalism and reliability of CBIFS personnel in supporting the justice system.

Recommendation 14:

Pursue Legislative Enhancements to Establish Statutory Privilege for Defense-Requested Forensic Testing	It is recommended that CBIFS consider advocating for legislative enhancements to establish a framework that preserves impartiality by recognizing privileged access to court-ordered forensic testing for the defense. This recommendation is not intended to promote additional or duplicative retesting, but rather to support the foundational principles of fairness and confidentiality in the justice system. Specifically, the framework could clarify that a court order for forensic testing, requested by the defense and approved by the presiding judge, would be protected as privileged work product and not subject to disclosure without the defense's consent. This approach aligns with ISO/IEC 17025 standards, which emphasize impartiality and customer confidentiality. Creating a separate procedural pathway for court-ordered defense access to CBIFS would help ensure that both prosecution and defense are afforded equal footing while maintaining scientific neutrality.

By enacting these measures, the state would enhance the fairness, impartiality, and transparency of forensic testing procedures, uphold the rights of the defense, and reinforce public confidence in the criminal justice system. Implementing these enhancements would strengthen the fairness of the criminal justice process by safeguarding the defense's ability to conduct confidential investigations and prepare their case without undue interference or premature disclosure to the prosecution.

Legal Representation for CBIFS:

According to Colorado Revised Statutes § 24-31-101(1)(a), the Attorney General shall act as the chief legal representative of the state and be the legal counsel and advisor of each department, division, office, board, commission, bureau, and agency of state government. CBIFS relies on Assistant Attorneys General (AAGs) from the Colorado Department of Law for legal guidance and support.

While this arrangement provides access to legal expertise, it presents several challenges that can impact the efficiency, consistency, and perceived impartiality of CBIFS' operations. There are limited but possible pathways for CBIFS to obtain independent legal counsel outside the Attorney General's Office if there is a legitimate concern about perceived bias or a potential conflict of interest. A constructive path forward could involve CBIFS leadership, in coordination with CDPS, formally requesting authorization from the Attorney General to engage independent or special counsel. By clearly articulating any concerns about potential or perceived conflicts of interest, this approach may help reinforce transparency and strengthen public confidence in CBIFS processes. This method ensures transparency and procedural compliance, directly addressing any concerns about impartiality.

Recommendation 15:

Dedicated Legal Counsel within CBIFS	It is recommended that CBIFS have dedicated legal counsel who should report to a member of the crime laboratory, ideally the Deputy Director or Lab System Director.

Potential Risks of Not Getting a Dedicated Legal Counsel:

- Perception of Bias**:** AAGs serve multiple state agencies, including those involved in prosecution. This dual representation can lead to a perceived conflict of interest,

potentially undermining public confidence in the impartiality of the CBIFS' forensic analyses.

- Inconsistent Legal Guidance**:** The rotation of different AAGs assigned to the CBIFS can result in inconsistent legal advice. Each new attorney requires time to become acquainted with the specialized nature of forensic science and the specific operational protocols of the CBIFS laboratories before they can offer legal advice.

- Re-education**:** The recurring need to educate incoming AAGs about the intricacies of forensic science and laboratory operations consumes valuable time and resources, diverting attention from the CBIFS' primary mission.

Potential Benefits of Retaining Dedicated Legal Counsel:

- Enhanced Specialization**:** An in-house legal counsel and/or team would develop specialized knowledge of forensic science, laboratory procedures, and the unique legal challenges the CBIFS faces, leading to more informed and effective legal support. These attorneys could assist in training and education internally and across the state, particularly in addressing legal issues such as the recent United States Supreme Court ruling in *Smith v. Arizona*.

- Improved Consistency**:** Dedicated legal counsel would provide consistent legal advice, reducing the variability associated with rotating external attorneys and ensuring continuity in legal strategies and interpretations. This legal resource could also be helpful to other forensic science service providers across Colorado.

- Increased Efficiency**:** Having legal experts embedded within the CBIFS would facilitate quicker decision-making and more immediate legal support, streamlining operations and reducing delays. This is especially important with CORA requests, complex discoveries, and court order requests.

- Strengthened Public Trust**:** Establishing an independent legal team within the CBIFS would help mitigate perceptions of bias and reinforce the agency's commitment to impartiality and integrity in forensic investigations.

There are considerable benefits to having dedicated legal counsel that reports to CBIFS leadership.

Structure

Forensic laboratories exist to objectively analyze evidence, not to serve one side of a legal proceeding. When crime labs are placed under the control of law enforcement agencies, prosecutorial offices, or other legal entities, a structural conflict of interest arises: the agency responsible for unbiased scientific testing is housed within, and often subordinate to, an entity with a vested interest in the outcome of a case. This undermines the fundamental principle of scientific impartiality.

The role of a forensic laboratory in the justice system is to serve as a scientifically neutral and objective resource. Its purpose is not to advocate for one side of a legal case but to uncover facts through the disciplined application of science. For this reason, the placement of forensic laboratories under law enforcement agencies or prosecutorial offices, particularly when leadership is politically appointed, presents a fundamental conflict of interest that threatens the integrity of forensic science work and, by extension, the justice system itself.

When crime laboratories are organizationally housed within and under the control of law enforcement or prosecutorial attorneys, the line between objective scientific analysis and investigative advocacy becomes dangerously blurred. Forensic scientists may face implicit or explicit pressure to align their findings with investigative theories or prosecutorial goals. In such environments, the independence necessary for rigorous and transparent scientific inquiry can be compromised. The result can be a chilling effect on dissent, a reluctance to report quality concerns, and an erosion of the laboratory's credibility both in the courtroom and with the public.

The risks of this arrangement are not theoretical. Across the United States, cases of forensic error, which sometimes contribute to wrongful convictions, have occurred in systems where laboratory oversight is embedded within adversarial branches of government. These failures were not always the result of technical incompetence, but rather structural vulnerability: scientists feared career consequences for speaking up, or they worked under leadership more focused on conviction metrics than scientific accuracy.

Colorado is not immune to these challenges. The recent issues within the CBIFS system have underscored the urgent need for a structure that supports scientific excellence and protects it from politicization. Laboratories must be led and governed by career professionals with deep expertise in forensic science, rather than by appointees whose tenure may be influenced by legal outcomes or political cycles. A system grounded in science demands leadership that is equally valued, with leaders who understand the standards of accreditation, the necessity of validation, the responsibilities of impartiality, and the ethical mandates of the critical work they undertake.

Accrediting bodies and standards, such as ISO/IEC 17025, are clear that scientific independence is not merely a best practice, but a foundational requirement. A laboratory's credibility rests not only on its technical capabilities but also on the assurance that its work is free from external influence. The justice system is strengthened when scientists can conduct their work without fear of retaliation or undue influence from prosecution or politics.

Equally important is the matter of public trust. Communities must believe that forensic science results are the product of objective science, not the result of institutional bias. That trust is fragile and damaged when laboratories are seen as extensions of police departments or prosecutors' offices. Placing laboratories under independent, non-appointed, scientific leadership sends a clear message: justice must be informed by truth, not convenience.

In summary, the future of forensic science in Colorado and elsewhere depends on the strength and clarity of its governance. Scientific organizations must be guided by scientific principles and led by those with scientific expertise. The justice system can only fulfill its promise of fairness, accountability, and accuracy by ensuring that forensic science laboratories are organizationally independent, professionally managed, and shielded from political or legal entanglements.

Recommendation 16:

Establish CBIFS as an Independent Division	CDPS currently serves as the parent agency of the CBI, under which the Forensic Services section operates. It is recommended that the Forensic Services section, including the Deputy Director position overseeing forensic operations, be structurally separated from CBI and established as an independent, standalone division within the CDPS.

This restructuring would enhance the visibility and strategic oversight of forensic services, enabling the crime laboratory system to operate with greater autonomy, transparency, and accountability. Having the Deputy Director of Forensic Services report directly to CDPS Executive Leadership would make the section better positioned to prioritize scientific integrity, ensure appropriate resource allocation, and foster a leadership structure more attuned to the unique operational, legal, and scientific demands of forensic science. This realignment would also reinforce the impartiality of forensic operations and strengthen public confidence in the independence and objectivity of laboratory findings.

Removal of Embedded CBI Law Enforcement Staff:

Multiple interviews and laboratory tours revealed that in several locations, including Pueblo and Grand Junction, CBI law enforcement agents are physically embedded within crime laboratory facilities. While this arrangement may foster informal communication and camaraderie, concerns were raised during staff interviews regarding its impact on laboratory operations and the perception of impartiality.

One assessor noted that the presence of law enforcement agents in sensitive areas, such as evidence receiving, could pose an operational risk, particularly given that CBIFS serves a broad range of customers beyond CBI Investigations. Multiple staff members expressed concerns about feeling pressured to provide case updates or prioritize CBI Investigations submissions over other agencies, creating a perception of preferential treatment.

Additionally, CBIFS personnel reported that sharing physical space with law enforcement limited the laboratory's growth potential and inhibited the full use of designated areas. These concerns were consistently observed and echoed by several assessors. While members of CBIFS management acknowledged the value of strong working relationships with law enforcement and noted that law enforcement leadership has been receptive when management intervened to address inappropriate behavior, the physical co-location remains a point of friction.

Recommendation 17:

Relocate CBI Investigations Staff from CBIFS Facilities	It is recommended that CBI Investigations staff be relocated from CBIFS facilities. This would enable CBIFS staff to maintain dedicated laboratory and office space, fostering an environment that prioritizes scientific objectivity, operational efficiency, and professional boundaries. It would also preserve the integrity and independence of forensic operations, mitigating both real and perceived conflicts of interest.

Staffing Levels and "Right-Sizing"

The CBI's "Right-Sizing" initiative was developed to strengthen staffing levels within its Investigations and Forensic Services sections over a three-year period. The goal is to add 107 full-time employees by June 30, 2025. The initiative aimed to address increasing workload demands, enhance service delivery, and ensure timely forensic and investigative support throughout the state.

While the plan emphasized increasing personnel to meet rising evidence submission rates, driven partly by Colorado's population growth, it is unclear whether the staffing calculations explicitly factored in key operational variables such as anticipated staff retirements or the existing capacity constraints within the crime laboratories. The available documentation does not provide sufficient detail to determine if such considerations were incorporated into the workforce planning model.

The plan did acknowledge the importance of an equitable geographic distribution of new hires to better serve regional needs. In conclusion, although the "Right-Sizing" effort represents a proactive step toward addressing resource demands, the assessment team did not find clear evidence that retirement trends or current laboratory throughput limitations and capacity were systematically evaluated as part of the staffing justification process. Additional analysis may be warranted to ensure long-term sustainability and operational resilience within CBIFS.

Recommendation 18:

Addition of Specific Positions in CBIFS	In addition to other positions mentioned within this report, the following staffing additions are recommended: • **Case Coordinators:** These positions filter out potentially biasing information, such as police reports, before they reach scientific staff, thereby preserving the objectivity of forensic analyses. The position description should also include opportunities to use them at the front end of the case intake process. • **Firearms Examiners:** These positions are needed to reestablish the Firearms Unit at the Pueblo Laboratory. More firearms examiners are recommended to address the increased workload and reduce case backlogs in the Firearms Unit, particularly for cases that occur in the geographical region served by the Pueblo Laboratory. • **DNA Analysts:** These positions are needed to meet the increasing demands of the Biological Sciences Unit. More DNA analysts across all CBIFS labs are recommended to enhance DNA analysis capacity and ensure timely case processing. • **Toxicologists:** These positions are needed to meet the increasing demands of the Toxicology Unit. More toxicologists are recommended in the Arvada, Pueblo, and Grand Junction locations to enhance the laboratory's ability to conduct comprehensive toxicological analyses. • **NIBIN Technical Leader or Lead Worker:** This position is essential for continuing to facilitate the success of the CBIFS' NIBIN program. One position is recommended to ensure appropriate technical leadership of the CBIFS' NIBIN program.

Information Technology and Laboratory Information Management

In Colorado, the Governor's Office of Information Technology (OIT) is the central IT organization for executive branch agencies and other government entities. OIT provides a multitude of information technology services, including custom applications, networking, and data security, to support the state's operations. A Laboratory Information Management System (LIMS) is a software-based solution that supports modern laboratory operations. The LIMS software enables staff to perform various functions while maintaining case reports and records in an electronic format. LIMS functionality encompasses various laboratory processing phases, including receiving and logging cases and items associated with submissions, assigning and tracking analytical workloads, processing workflows, data storage, and generating confidential reports of opinions and conclusions. CBIFS utilizes LIMS software from a vendor that serves the forensic science service provider customer base.

The assessment team identified a range of challenges associated with the current LIMS implemented across CBIFS. While LIMS is intended to serve as the backbone of forensic documentation, its current use across CBIFS reflects a patchwork of practices, systemic inefficiencies, and underutilized capabilities that limit its value as a core operational tool. Multiple staff across sites expressed concerns that the LIMS is not being used to its full potential. Key functions, such as pre-log workflows, digital evidence tracking, and automated reporting fields, are either inconsistently applied or not implemented at all. Additionally, the current system version lacks many of the modern features available in newer releases of the LIMS, which could address several persistent frustrations voiced by analysts, technical leaders, and quality personnel.

However, it is essential to emphasize that no LIMS upgrades or enhancements will be viable or sustainable without the establishment of dedicated IT support. Nearly every staff member interviewed, across disciplines and laboratory locations, consistently reported that the state of Colorado's current enterprise-level IT support model is not equipped to meet the specialized demands of a modern forensic laboratory system. The assessment team noted that the current enterprise-wide structure is a significant limitation for any complex laboratory environment that depends on continuously evolving software platforms and specialized instrumentation.

The current OIT model, which relies heavily on generalized, remote IT services, results in delayed response times, insufficient familiarity with forensic workflows, and a largely reactive approach to problem-solving. This lack of dedicated expertise has significantly constrained CBIFS' ability to configure, maintain, and optimize its LIMS infrastructure effectively. Without embedded IT support personnel who understand the operational and scientific nuances of forensic systems, the agency's capacity to fully leverage its technological tools and implement meaningful system upgrades will remain severely restricted.

Beyond technological improvement, an upgrade presents an opportunity for CBIFS to revisit and standardize system-wide practices, ensuring consistency across labs and disciplines. Disparate practices in how LIMS is utilized across locations have resulted in audit trail inconsistencies and delays in case processing. A uniform implementation of the upgraded system, with tailored training and configuration by each discipline, would reduce operational silos and help build greater confidence in both the tool and the processes it supports.

Recommendation 19:

Addition of IT Positions Embedded within CBIFS	It is recommended that CBIFS have dedicated, full-time IT staff responsible for managing the LIMS. Advancements, upgrades, and maintenance in technology require dedicated personnel to support the intricate operational and scientific complexities within a forensic science system. While the OIT model may not currently allow for this, it is essential to acknowledge this critical need.

Recommendation 20:

Upgrade to the Most Recent Version of LIMS Software	An upgrade to the most recent version of the LIMS used by CBIFS is recommended. The existing version is outdated and lacks flexibility, integration potential, and user-friendly interface improvements offered in newer releases. An upgrade would also enable more seamless integration with related platforms and digital dashboards, potentially facilitating opportunities for interfacing with court systems. These are key steps toward a more responsive and transparent forensic workflow.

It is essential to recognize that a system upgrade alone will not address the more profound structural and cultural issues associated with LIMS. Success will depend on pairing the upgrade with:

- Dedicated LIMS technical staff embedded within CBIFS to manage support, development, and enhancements in real time.
- A CBIFS LIMS Governance Committee to oversee standards, vet changes, and coordinate feedback across locations.
- Structured training plans that go beyond basic functionality and help staff understand how the system ties to scientific integrity, accountability, and efficiency.

Currently, LIMS does not function as a unified system across all laboratory locations. A well-managed upgrade, supported by the proper personnel and governance structure, is a technical need and a strategic investment in operational consistency, scientific accountability, and the modernization of forensic case management within CBIFS.

Northern Colorado Regional Forensic Laboratory

The Northern Colorado Regional Forensic Laboratory (NCRFL) stands as a well-intentioned example of regional collaboration in forensic science. Initially formed in 2013, the laboratory was the result of decades of interagency cooperation dating back to 1968, when the Weld County Sheriff's Office and Greeley Police Department began jointly supporting forensic services. As regional needs evolved, a working group, which included the CBIFS, collaborated to establish a shared facility governed by an intergovernmental agreement (IGA). This agreement, still in effect today, distributes oversight responsibilities among several law enforcement and prosecutorial stakeholders and created what is now referred to as the Northern Regional Lab Group (NRLG).

While the NCRFL has delivered on its promise of shared resources and regional accessibility, the assessment team noted that the structure also presents some risks, particularly around workforce stability, position mobility, and long-term succession planning.

Unlike other CBIFS laboratory facilities, NCRFL operates under a shared governance model where CBI and CBIFS staff function in a unique classification framework influenced by local agency policies. This hybrid structure limits CBIFS' authority over key workforce functions, including career development, classification equity, and long-term planning. For example, leadership positions, such as laboratory management roles, are often tied to specific agencies under the MOU rather than being awarded through centralized state-led hiring based on merit or statewide organizational needs. This not only narrows the qualified applicant pool but also constrains career mobility for staff who may wish to grow into leadership but are not affiliated with a host agency. It must be made abundantly clear that the current leadership in NCRFL is highly effective and the culture in the laboratory is one of deep respect, integrity, service, and forensic progress.

Ultimately, the structural conditions present a risk to succession planning. As current lauded leaders retire or transition out, CBIFS may face challenges in identifying and placing qualified replacements if those roles are limited by agency affiliation or bound by legacy Memoranda of Understanding (MOU) provisions. Without a transparent and merit-based path for internal advancement, high-performing forensic scientists may feel professionally

stifled or exit the organization altogether in pursuit of more navigable growth opportunities. The absence of a unified leadership development and promotion system also undermines CBIFS' ability to implement consistent management practices and maintain scientific continuity across all sites.

Additionally, the structure restricts staff transferability, creating inequities for those based at NCRFL. The assessment team interviewed multiple employees who experienced difficulties transferring to other CBI labs, often risking a loss of pay, benefits, or credited tenure. This further disincentivizes cross-site collaboration, weakens workforce resilience, and introduces fragmentation into what should be a unified, statewide forensic service delivery model.

The current shared governance model significantly challenges CBIFS' obligation to maintain compliance with ISO/IEC 17025 accreditation, particularly in the domains of quality management, impartiality, and leadership oversight. When multiple stakeholders influence operational direction, yet no single agency holds full accountability for laboratory function, the risk of compliance gaps increases, and the consistency of quality assurance efforts may be compromised.

Forward Resolutions has determined, through interviews and reviews, that while current leadership has demonstrated strong accountability, professionalism, and adaptability within this structure, relying on the goodwill and cooperation of individuals is not a sustainable strategy. Governance models must be designed to ensure structural integrity and compliance regardless of changing leadership dynamics or evolving stakeholder relationships.

While the NCRFL model has brought notable regional benefits, it is increasingly clear that the intergovernmental framework requires modernization. Without reform, CBIFS will continue to face challenges in managing talent, sustaining leadership, and maintaining consistency in scientific standards.

Recommendation 21:

Conduct a Review and Possible Renegotiation of the Existing MOU	A review and possible renegotiation of the existing NCRFL Memorandum of Understanding (MOU) is recommended. This would modernize and standardize the MOU framework, clarifying governance, authority, and classification roles to reflect current operational demands. Establishment of a dedicated CBIFS leadership role with authority over NCRFL should also be considered. This would create accountability and operational consistency through centralized scientific oversight and could be an opportunity through the Quality Unit.

Recommendation 22:

Integrate NCRFL Personnel into a Unified Classification and Pay Structure	Integrating NCRFL personnel into a unified classification and pay structure should be considered. This would ensure equity and career mobility by aligning staff with state employment standards and allowing them all access to statewide resources.

Recommendation 23:

Build a Succession Planning and Leadership Development Program	A succession plan and leadership development program should be considered. This would promote qualified internal candidates and ensure leadership continuity regardless of agency affiliation. Consideration should be given to making the leadership program merit-based.

These reforms will be essential to ensure that the NCRFL continues to serve as a strong regional asset while fully aligning with the operational, scientific, and strategic needs of the statewide forensic system.

Key Performance Indicators and Performance Metrics

During interviews with stakeholders, a consistent concern emerged regarding the public perception of forensic science, specifically, that crime laboratory work is often viewed through the lens of manufacturing or industrial production. This misconception has led to the development and application of capacity models that inadvertently mirror manufacturing-based frameworks, focusing primarily on output metrics without fully accounting for the complexity and variability inherent in forensic casework.

Forward Resolutions concurs with Colorado stakeholders in challenging this outdated view. Forensic science is a service-oriented operation that incorporates elements of production, but is not, at its core, a production-based industry. This distinction is critical. Unlike manufacturing environments, forensic laboratories operate in a landscape defined by scientific rigor, legal standards, and individualized case complexities that often require iterative examination, interpretive analysis, and case-specific expert judgment. Each submission is unique, and examiners must navigate a combination of analytical methods, quality assurance requirements, and evidentiary considerations within strict ethical and legal frameworks.

By embracing this more nuanced and evolved understanding of forensic science as a complex, high-consequence service discipline, the assessment team was able to assess the concerns raised by Colorado stakeholders more effectively. This perspective informed recommendations, allowing for an approach that respects the scientific integrity of the work while supporting operational efficiency and sustainable performance measurement. CBIFS is currently facing a significant backlog crisis, resulting in extended turnaround times for forensic casework. This increasing workload has created a high-pressure environment that some staff have described as a “pressure cooker.” While the assessment team did not observe any evidence of compromised scientific integrity or staff cutting corners, multiple reports indicated that personnel feel increasingly burdened by perceived expectations, particularly regarding productivity quotas.

During many interviews, flat “quotas” were widely criticized, which negates consideration for case complexity. Scientists handling complex or high-sample-count cases were held to the same quotas as those with simpler caseloads, incentivizing cherry-picking and eroding

fairness. The lack of a weighted case matrix or workload dashboard impairs transparency and demoralizes staff. Rush case criteria are inconsistently applied and often externally influenced. Scientists lack visibility into prioritization decisions and frequently feel case assignments are arbitrary or inequitable. Excel-based tracking systems are usually inefficient, prone to errors, and contribute to data silos.

It must also be stated that timeliness is a legitimate and critical component of forensic quality. Delays in forensic reporting can seriously affect public safety, investigations, and the justice system. However, performance frameworks must be balanced with clear, realistic, and equitable expectations to ensure they do not inadvertently contribute to employee stress or diminish morale. To their credit, the new CBIFS leadership has taken proactive steps to address concerns regarding workload pressure and perceived quotas by implementing a more robust quality assurance framework. This framework emphasizes transparency, scientific integrity, and leadership accountability. Nevertheless, concerns persist among staff regarding how productivity expectations are communicated and interpreted.

This perception appears to be influenced, in part, by a long-standing internal culture in which staff who exceeded productivity benchmarks were historically rewarded with accolades or recognition. During interviews and surveys, many staff noted that formal and informal recognition continues to appear disproportionately tied to high output or high-profile casework. This has created a lingering impression that success is primarily measured by volume or visibility rather than by the full spectrum of contributions that support CBIFS' mission.

Many employees strongly desire a more inclusive and diverse approach to recognition. Suggestions included acknowledging team-oriented behaviors, interdisciplinary support, peer mentoring, and contributions by support and evidence staff, groups that have historically felt overlooked in recognition efforts. Staff specifically lauded the use of the CDPS "Impressions" software tool, which enables colleagues to provide peer-to-peer kudos. They also spoke positively about the CBI Employee Engagement Team, noting that improved confidentiality in giving feedback to representatives would enhance participation and trust in that forum. Recognition programs should move beyond traditional metrics, such as case volume or involvement in high-profile investigations, and instead adopt a more inclusive and holistic approach.

By integrating recognition criteria with thoughtfully developed KPIs that reflect service and scientific excellence, CBIFS can foster a more balanced and motivating environment. This approach supports employee engagement and retention, reinforces a culture that values diverse contributions, aligns with the agency's mission, and supports the long-term sustainability of high-quality forensic services.

Lastly, a notable theme during the assessment was the lack of shared understanding between staff and management around key organizational terms, particularly "accountability." These terms were often used interchangeably or inconsistently, leading to confusion and misaligned expectations. To assist in bridging this gap, Forward Resolutions offers the following clarification:

Accountability is best understood as a personal attribute. It is an internalized commitment to integrity, ownership, and responsibility. It reflects a professional mindset in which individuals strive to meet expectations, acknowledge mistakes, and take initiative to improve. Personal accountability is demonstrated through consistent follow-through, open communication, and a willingness to accept responsibility for one's actions.

Enforcement, by contrast, is an external mechanism that management or organizational systems use to address unmet expectations, non-compliance, or underperformance. While necessary in some instances, enforcement should not be a substitute for fostering a culture where accountability is embedded. In a healthy organization, enforcement is the exception rather than the norm. It should be used only when internal accountability breaks down.

Recommendation 24:

Strengthen the Balance Between Performance Expectations and Workplace Well-Being	An external firm should be considered to assist with conducting capacity analyses across disciplines, determining reasonable, data-driven workload expectations, and developing SMART-aligned KPIs that reflect both scientific quality and operational realities. Additionally, they should support, facilitate, and assist management in clearly and consistently communicating expectations, emphasizing fairness, transparency, and employee well-being. Since unspoken expectations are premediated resentments, all performance expectations must be clearly defined and communicated in advance to ensure clarity and understanding. CBIFS can move toward a more balanced, inclusive, and sustainable performance culture that values scientific excellence, supports its workforce, and reinforces a foundation of trust and accountability.

Recommendation 25:

Re-evaluate the Current Award and Recognition Programs	A re-evaluation of the current award and recognition programs should be considered. This process should be aligned with any revised key performance indicators (KPIs), updated workflows, and organizational values that emerge from ongoing performance and capacity assessments. This should also include assessing the award and recognition programs in CBI and CDPS.

Biological Sciences (DNA and Serology)

Forensic DNA analysis is one of the most powerful tools available to the justice system. It enables forensic scientists to examine biological evidence, such as blood, saliva, semen, and other cellular material, left at crime scenes. At CBIFS, serology and DNA analysis are conducted with rigorous scientific methodology and under nationally recognized accreditation standards, ensuring the integrity, reliability, and reproducibility of results. Multiple stakeholder interviews revealed that many law enforcement officials, judges, and attorneys trusted the results obtained from CBIFS, with only a small percentage expressing concern.

DNA testing at CBIFS involves a meticulous process of sample extraction, quantification, amplification, and interpretation. The process is highly sensitive, so analysts must navigate challenges such as degradation, low-level samples, potential contamination, and complex mixtures containing DNA from multiple contributors. These issues require both technical precision and expert judgment to resolve, especially in high-stakes cases involving violent crime or unidentified human remains.

Forensic DNA analysis has advanced significantly in recent years by adopting probabilistic genotyping, also known as PGen. This method utilizes sophisticated software and statistical modeling to interpret complex DNA mixtures. This approach enhances the ability to distinguish between contributors in cases where traditional analysis would yield inconclusive results by applying thousands of likelihood calculations to assess the likelihood that a particular individual contributed to an evidentiary DNA profile.

While PGen provides greater analytical power, it also introduces complexity that demands ongoing training, transparency, and expert testimony. PGen results are expressed in likelihood ratios, requiring a nuanced understanding by scientists, who in turn must explain more palatable language to attorneys, judges, and juries. Using PGen has raised the evidentiary bar and necessitates strong quality assurance systems, software validation, and interpretational consistency. CBIFS continues to invest in advanced methodologies, staff development, and accreditation compliance to ensure that its forensic DNA capabilities remain scientifically robust and judicially defensible. As the field continues to evolve,

transparency, stakeholder education, and cross-disciplinary communication will be key to maintaining public trust in the power and limits of forensic DNA evidence.

During the assessment, the team gained a comprehensive understanding of the complexities surrounding the analytical issues uncovered in the Woods quality investigation. While the assessment team was not tasked with, and therefore did not conduct, a re-investigation or re-evaluation of the work performed by the Biological Sciences staff performing DNA analysis, the team received input from all levels of the organization and external stakeholders regarding the extensive efforts undertaken to assess the work of the Biological Sciences Unit at the analytical level. This included reviewing the Quality Incident Report (QIR) associated with the Woods quality investigation. These efforts aimed to ensure that staff produced scientifically sound and high-quality work. Based on the information provided to Forward Resolutions through the QIR, it was determined that the quality review conducted was as thorough as possible, especially given the complexity of the matter.

Through interviews with multiple stakeholders, a recurring perception emerged that prior CBIFS management may have attempted to minimize or obscure the severity of the Woods situation. Additional concerns were raised regarding how the issue was ultimately identified, as it was done by an intern rather than during the formal technical review process, prompting questions about oversight and system safeguards. Upon reviewing the available documentation and contextual information, the assessment team concludes that the risk of intentional system manipulation is heightened when a subject matter expert is deeply familiar with internal systems and processes with minimal safeguards. This underscores the importance of strong, multi-tiered quality assurance mechanisms and periodic third-party oversight in environments where technical expertise intersects with high levels of system access.

The CBIFS stands at a critical inflection point. While individual contributors remain committed and pockets of excellence persist, the organization requires strategic intervention to address chronic stressors, systemic inefficiencies, and uneven leadership. The CBIFS labs can evolve into a more resilient, effective, and respected institution with targeted investments in leadership, training, workflow, and communication.

In the Biological Sciences Unit (Serology and DNA), training across the CBIFS labs was reported to be fragmented and non-standardized. Trainers are often overburdened, documentation is outdated, and partnerships are misaligned with internal expectations. The

lack of a centralized, clear curriculum has resulted in confusion, inconsistent pacing, and high stress among new analysts. Feedback loops are weak, and there is no allotment of time or staff devoted solely to training.

As CBIFS continues to manage growing caseloads and backlog concerns, batching presents a practical opportunity to optimize technician and scientist time, reduce idle periods between stages, and enhance throughput without compromising quality. CBIFS could consider working with an external consultant specializing in a process improvement methodology, such as Lean Six Sigma, to provide advanced training to a cross-functional workgroup. This training could evaluate the feasibility of batching, define suitable case types or process stages for implementation, and develop protocols that incorporate quality assurance checkpoints. This effort should be accompanied by ongoing monitoring to assess effectiveness, staff satisfaction, and potential areas for refinement.

Recommendation 26:

Additional Management Positions in the Biological Sciences Unit	Additional laboratory manager positions are needed to effectively lead the Biological Sciences Unit. Before adding any positions, CBIFS should ensure that current management has the appropriate skill sets to effectively lead a team with a demanding workload and recover from a stressful event. Individuals struggling with performance should receive targeted coaching emphasizing emotional intelligence and team development. These efforts should be made before adding the necessary positions to the management team of the Biological Sciences Unit, to ensure cohesive and effective management and leadership of the Unit.

Recommendation 27:

Develop Healthy Team Dynamics	Multiple sources of feedback consistently emphasized the need for all members of the Biological Science Unit, including laboratory managers, to develop stronger, more consistent, and trust-based relationships. These are needed to improve communication and employee engagement.

Recommendation 28:

Establish a Centralized Training Group for the Biological Sciences Unit	The creation of a centralized training group should be considered. The training group should be staffed by individuals with dedicated time to focus solely on training responsibilities and developing a modular, standardized curriculum aligned with onboarding needs and case complexity.

Recommendation 29:

Evaluate DNA Workflows to Gain Efficiencies	Evaluation of the DNA workflows to gain efficiencies is advised. Significant staff feedback described a readiness to pilot or refine batching methodologies, particularly in high-volume areas such as reference sample processing and CODIS uploads. These methods increase visibility and enhance these complex workflows.

Recommendation 30:

Introduce a Case Complexity Scoring Model and Workflow Dashboards in the Biological Sciences Unit	A case complexity scoring model should be considered to categorize cases as light, medium, or heavy. Workflow dashboards should be implemented to improve visibility into workload distribution, turnaround times, rush designations, and backlog management. Each lab location should appoint a designated Workflow Coordinator to manage and oversee these systems.

These recommendations offer a path forward for CBIFS' Biological Sciences Units to refine their scientific processes, strengthen internal trust, and build a more resilient and responsive laboratory system.

Firearms

Firearms examination is a foundational component of forensic science. It plays a vital role in criminal investigations by linking firearms, casings, and projectiles to specific weapons and, potentially, criminal events. In Colorado, as in jurisdictions across the country, the timely and accurate analysis of firearms evidence is crucial for maintaining public safety, enhancing investigative efficacy, and ensuring fair judicial outcomes.

Training a forensic firearms examiner is a rigorous and time-intensive process. Typically, a minimum of 18 to 24 months of full-time, structured instruction and supervised casework is required before an examiner is deemed competent to perform independent comparisons. This training encompasses a broad range of technical topics, including firearms function, ammunition components, microscopic comparison techniques, evidence handling, report writing, mock trials, and preparation for courtroom testimony.

The unit has faced increasing legal scrutiny in recent years, particularly through challenges raised during *Schreck* hearings and similar admissibility proceedings. These court challenges frequently question the scientific foundations and reliability of firearms identification methods, necessitating thorough training for both new and experienced examiners in the technical aspects of their work and the evolving legal landscape. This includes enhanced training in courtroom testimony, scientific limitations, proper communication of findings, and emerging research in the field. As a result, the demands on training programs have grown, necessitating more significant support, resources, and oversight to ensure the technical competence and legal readiness of firearms examiners in today's forensic environment.

The unit also supports the National Integrated Ballistic Information Network (NIBIN), a powerful intelligence tool that allows for the rapid comparison of ballistic evidence across jurisdictions. The effectiveness of this tool depends not only on technology but on the technical skill, experience, and interpretation provided by highly trained firearms technicians. CBIFS is fortunate to have exceptional staff in this field, whose deep expertise and commitment to quality have positioned the unit as a trusted contributor to firearm-related investigations across the state.

Additionally, given the complexity of these organizational dynamics and the technical specificity of the discipline, CBIFS may want to consider engaging an external consulting firm with expertise in forensic science and organizational development to mediate and facilitate both efforts. A neutral third-party facilitator can help foster open dialogue, rebuild trust, and guide management and staff through a collaborative redesign of workflows and communication strategies. This approach ensures that changes are both data-driven and aligned with best practices, while also promoting a more cohesive and high-performing work environment within the Firearms unit.

Recommendation 31:

Expand the Firearms Unit to the Pueblo Laboratory	An expansion of the Firearms Unit to the Pueblo Laboratory should be considered. Investing in the expansion and structural support of a Firearms Unit at the Pueblo Laboratory is critical to maintaining a high-performing, sustainable forensic system that meets the needs of stakeholders across Colorado.

Recommendation 32:

Ensure Perspectives of the Firearms Unit are Considered in Management Discussions	CBIFS should consider including a staff member with direct firearms experience in management discussions. They would ensure that decisions are made considering the discipline's unique operational, technical, and training challenges. Another benefit is that the needs of firearms can be effectively advocated for at the management level.

Recommendation 33:

Develop Healthy Team Dynamics	Multiple sources of feedback consistently emphasized the need for all members of the Firearms Unit, including laboratory managers, to develop stronger, more consistent, and trust-based relationships. These are needed to improve communication and employee engagement.

Recommendation 34:

Evaluate Firearms Unit Workflows to Gain Efficiencies	It is recommended that workflow improvements be considered in the Firearms Unit. CBIFS staff and stakeholders identified the need for a strategic evaluation and restructuring of existing workflows to enhance operational efficiency, reduce bottlenecks, and improve overall throughput.

Recommendation 35:

Evaluate the Firearms Unit Training Program to Gain Efficiencies	CBIFS should consider evaluating the firearms examiner training program to ensure examiner competency rather than immediate mastery, allowing for steady development in a complex and highly scrutinized discipline. Consideration should be given to creating an Assistant Technical Unit Leader for Firearms, who could provide much-needed support in managing training programs and onboarding new staff.

These changes are essential to expanding services, improving morale, gaining efficiencies, and enabling the Firearms Units to function cohesively within the broader CBIFS system.

Latent Prints

The latent print discipline in forensic science focuses on examining, comparing, and identifying friction ridge impressions, most commonly fingerprints, palm prints, and sometimes footprints, left on surfaces during the commission of a crime. These impressions, often invisible or partially visible to the naked eye, are known as "latent prints" and are typically developed using specialized powders, chemicals, or imaging technologies. Latent print examiners analyze these impressions to determine whether they exhibit consistencies with known prints from suspects or individuals in fingerprint databases or as reference submissions with a case. An examiner's work plays a critical role in criminal investigations. Examiners also prepare detailed reports and may be called to testify in court regarding their findings. This discipline requires a high degree of attention to detail, rigorous training, and adherence to established scientific standards and quality assurance protocols to ensure accuracy, impartiality, and defensibility of results.

The Latent Prints Unit within CBIFS is staffed with dedicated and capable forensic scientists; however, the structure that supports them is fragmented, inconsistently applied, and vulnerable to interpersonal dysfunction and communication breakdowns. Across all sites, staff reported confusion regarding leadership roles and responsibilities, particularly with respect to the distinct yet overlapping duties of laboratory managers, discipline liaisons, and the technical leader. This lack of clarity has contributed to mismatched expectations, decision-making inconsistency, and instances of conflicting instructions. A system-wide effort is needed to define and communicate the specific functions and boundaries of each leadership role, and this framework must be incorporated into onboarding processes, policy documents, and operational practices.

A second and more pervasive issue is the ongoing interpersonal conflict and cultural division. Numerous individuals described opportunities within the system-wide culture, noting that systemic improvements were necessary, especially during the technical working group (TWG) meetings. The technical leader is technically proficient and well-versed in the discipline, but is repeatedly described as overwhelmed.

From a training and onboarding perspective, the current framework for bringing new latent print examiners into the agency is inconsistent and, in some cases, inefficient. Despite

utilizing respected external training programs, analysts were subjected to additional internal training delays, uncoordinated observation assignments, and prolonged periods of idle time, sometimes lasting for months. Training materials were often not prepared in advance, and the technical leader reportedly could not dedicate sufficient time due to a high volume of responsibilities. These delays affect not only onboarding outcomes, but also staff retention and the perceived value of training investments. A restructured, time-bound, and pre-planned latent print training curriculum, with delegated responsibilities where appropriate, would substantially improve the onboarding experience.

Operationally, while performance metrics and case turnaround times are strong, there is no formal latent print case submission policy, which creates workload inequities and complicates prioritization. For example, some cases may include more than 100 items, while others include fewer than 10, yet each counts as a single case in productivity metrics. A staged submission policy, allowing agencies to submit a set number of probative items initially, followed by additional batches if needed, would promote efficiency and fairness across the system.

Regarding verification practices, although a random review roster exists, several employees have questioned the transparency and consistency with which this list is applied. There is little confidence that the rotation is equitable, and the process is not publicly posted. Expanding and documenting the use of sequential unmasking, blind verification, and transparent reviewer rotation would strengthen the lab's impartiality safeguards and reinforce stakeholder trust.

Finally, career growth pathways and professional development opportunities appear to exist in theory, but are not consistently implemented in practice. Staff expressed interest in leadership development, participation in research, and internal advancement, but few tangible systems were in place to facilitate or support these aspirations. A renewed focus on structured mentorship, internal talent development, and recognition of cross-lab contributions would help elevate engagement and retention.

Recommendation 36:

Facilitated Discussions with the Latent Prints Unit Discussing Roles and Responsibilities	Feedback from numerous interviews suggested ambiguity surrounding the roles and responsibilities of laboratory managers, technical leaders, and discipline liaisons. A structured conversation would help surface assumptions, resolve misunderstandings, and lay the groundwork for greater alignment and understanding. Following this session, the team should develop and distribute a clearly defined leadership structure chart specific to the Latent Prints Unit. This chart should outline the scope and boundaries of each role and be embedded into onboarding materials and annual team refreshers to ensure continued clarity.

Recommendation 37:

Develop a Cohesive Latent Prints Unit Training Plan	Staff voiced concerns about inconsistent onboarding timelines, redundant training elements, and delays in practical experience following external courses from the outsourced training vendors. A collaborative planning session would enable the team to design a standardized training framework that incorporates recognized external training equivalencies, while streamlining internal expectations and reducing unnecessary repetition. The group would benefit from a facilitated work session dedicated to developing a cohesive training plan.

Recommendation 38:

Enhance Transparency in the Verification Process	Enhancing transparency in the verification process is advised as it strengthens scientific integrity and workload equity. This includes publishing and routinely updating the verification rotation list to promote confidence in the impartiality of assignments. Additionally, sequential unmasking and blind verification procedures should be expanded as part of a broader commitment to scientific rigor.

Recommendation 39:

Adopt a Case Submission Policy for the Latent Prints Unit	Operationally, adopting a staged case submission policy in the Latent Prints Unit is advised. This would help ensure more balanced evidence review workloads by encouraging submitting agencies to provide an initial set of probative items, with additional submissions made as needed based on results.

These recommendations aim to build a more structured, transparent, and collaborative Latent Prints Unit grounded in clarity, consistency, and trust.

Seized Drugs

The discipline of seized drugs, also known as drug chemistry, in forensic science is responsible for identifying and analyzing controlled substances found during criminal investigations. Forensic chemists examine substances such as powders, pills, plant material, or residues to determine if they contain illegal or statutorily controlled drugs (e.g., cocaine, fentanyl, methamphetamine, etc.). Using techniques such as gas chromatography-mass spectrometry (GC-MS), Fourier transform infrared spectroscopy (FTIR), and colorimetric tests, analysts confirm the presence and type of the drug, which is then used as evidentiary support in legal proceedings. This discipline plays a critical role in drug trafficking, possession, overdose, and distribution cases.

Across the Drug Chemistry Units at CBIFS, individuals consistently expressed concerns regarding workload distribution, leadership support, and professional development. While the units are staffed by highly skilled, dedicated, and innovative forensic scientists who are deeply committed to the mission, a recurring theme was the perception of workload inequity. Some analysts routinely carry significantly heavier caseloads and exceed expectations, while others perform only to the minimum required standards without meaningful accountability or intervention. This imbalance has contributed to frustration among staff and a lack of clarity about performance expectations.

Feedback was also received that described leadership gaps in some locations. Several analysts described supervisors who manage through authority rather than influence, avoid addressing conflict, and fail to inspire or support their teams. These behaviors have created an environment of low trust among some staff, where employees are reluctant to raise concerns due to fear of retaliation. Those interviewed expressed a desire for managers who are better trained in interpersonal dynamics, coaching, and inspiring professional accountability. Additionally, feedback received described how the structure involving MOU staff creates ambiguities that have resulted in communication gaps, feelings of exclusion from operational decisions, and inconsistencies in task assignments.

Career development emerged as an area for improvement. Analysts reported that training is infrequent, with most receiving only one training opportunity annually, and some receiving none. While some take on added responsibilities, such as serving as safety officers or validation leads, these contributions are rarely acknowledged in performance evaluations or

advancement opportunities. Many analysts expressed a desire for a more transparent and meaningful path toward career growth, one that takes into account both technical proficiency and leadership-in-role efforts.

While innovation is theoretically supported, it is hindered in practice by a cumbersome and unclear process. Staff noted that idea submissions often disappear in the Innovation Workflow with little follow-up or feedback. There is a clear appetite for innovation, but the structure for proposing, reviewing, and implementing ideas needs to be significantly streamlined to re-engage staff and harness their insights. Validation bottlenecks further frustrate progress. Analysts reported long delays in bringing new instrumentation or methodologies online due to insufficient time, staffing, or system support. These delays impede efficiency and diminish enthusiasm for pursuing improvements and adapting to scientific advancements.

Recommendation 40:

Strengthen the Innovation Workflow	The Innovation Workflow presents a valuable opportunity for staff engagement and process improvement. Still, it could be significantly strengthened through thoughtful redesign or software enhancements incorporating clear timelines, consistent feedback mechanisms, and transparent tracking of idea implementation.

Recommendation 41:

Incorporation of MOU Staff	It is advised that MOU staff be fully incorporated into lab communications, decision-making, and development opportunities to reduce structural inequities. While MOU staff attend regular CBIFS meetings and updates, it could be worthwhile to engage in regular, facilitated roundtables to gain insight into operational opportunities and perspectives. This will allow staff to feel heard.

Recommendation 42:

Improve Validation Efforts	It is advised that any validation efforts be given a reasonable amount of time and coordinated support to advance scientific capabilities system-wide.

These changes are essential to restoring balance, improving morale, and enabling the Drug Chemistry Unit to function at its full potential within the broader CBIFS system.

Toxicology

Forensic toxicology is the discipline focused on detecting, identifying, quantifying, and interpreting the presence of drugs, alcohol, and other toxic substances in biological samples, such as blood and urine. Forensic toxicology plays a vital role in criminal investigations, post-mortem examinations, and impaired driving cases by determining whether substances contributed to an individual's impairment or cause of death.

Forensic toxicologists use sophisticated analytical instrumentation and validated methods to ensure results are accurate, legally defensible, and scientifically sound. Their findings are often used in court proceedings. The Toxicology Units across all sites exhibit a strong commitment to productivity and are high contributors to the agency's overall turnaround time (TAT) metrics. Staff at each lab demonstrate dedication to casework and maintain inter-lab communication and synergy, especially when handling challenging workflows or instrumentation limitations. There is also a shared culture of scientific ownership, where analysts actively track their performance and remain focused on meeting individual and system-level expectations. Training efforts, particularly during onboarding, were generally described as well-structured, especially for new staff; however, areas for enhancement remain.

Across all sites, there is a dominant focus on productivity metrics, with comparatively little recognition or strategic emphasis placed on scientific complexity, training completeness, innovation, or peer collaboration. Analysts expressed concern that pressure to meet metrics could compromise thoroughness, particularly when new hires' training is expedited to meet system capacity goals.

Instrument downtime, lack of dedicated forensic IT support, and compatibility issues with LIMS were major pain points. Software updates routinely disrupt connectivity between instruments and data systems, and sample extract transfers between labs are a pain point. Frustration was expressed regarding the single Quadrupole Time-of-Flight (QToF) mass spectrometry instrument in Arvada, which has not yet been validated, and its implementation is stalled due to workflow, infrastructure, and procedural gaps.

Post-analytical steps, such as batch reviews and technical reviews, are often duplicative and inefficient, contributing to an increase in workload. Sample extract sharing between labs, lack of consistent documentation practices, and unclear procedures when instrumentation fails all contribute to workflow instability. In one of the labs, for example, analysts reported that drug screening takes two full days due to outdated two-probe instrumentation, compared to the more efficient five-probe instrumentation used in other labs.

To address the systemic challenges identified across the Toxicology Units at CBIFS, Forward Resolutions recommends a multi-faceted improvement strategy that focuses on balancing scientific complexity with productivity, enhancing workflow clarity, and fostering a culture of trust and accountability.

Recommendation 43:

Re-evaluate the Use of Productivity Metrics and Case Output in the Toxicology Units	The current emphasis on case output and productivity metrics should be recalibrated to better reflect the importance of scientific rigor, training, and professional contributions. A more balanced performance framework, one that values case complexity efforts, method validation, mentoring, and peer collaboration, will help shift the culture from a volume-first to a purpose-driven approach in science. This adjustment is especially critical for new analysts, who often feel pressured to meet productivity expectations before they are fully integrated into the discipline.

Recommendation 44:

Assess Toxicology Workflow to Gain Efficiencies	Workflow inefficiencies were consistent across all sites, particularly in post-analytical processes. CBIFS should consider identifying and eliminating redundant batch reviews, streamlining documentation steps, and clarifying transitions between analytical and administrative roles. These efforts will help reduce the backlog of unauthored cases, minimize bottlenecks, and improve overall case progression. In tandem, the current opportunity of enhanced procedures for extract transfers between labs must be addressed immediately. A standardized inter-lab sample tracking protocol is essential to safeguard evidence integrity and maintain confidence in analytical outcomes.

Additionally, the assessment team recommends that CBIFS consider engaging an external consultant in process improvement methodologies, such as Lean Six Sigma, to conduct process mapping. This will enable the identification and elimination of redundant batch reviews, streamline documentation steps, and clarify transitions between analytical and administrative roles.

Recommendation 45:

Prioritize Instrument Infrastructure and Technological Support	The Toxicology Unit relies on complex instrumentation that is routinely impacted by system incompatibilities due to the absence of dedicated forensic IT support and delayed maintenance. The assessment team recommends embedding IT resources for CBIFS, as previously mentioned in this report. Additionally, a coordinated strategy should be developed to accelerate the implementation and validation of advanced instruments, such as the QToF system, across all sites. This would include scheduling dedicated validation time and formalizing workflow integration plans.

These recommendations offer a path forward for CBIFS' Toxicology Units to refine their scientific processes, strengthen internal trust, and build a more resilient and responsive laboratory system.

Trace Evidence

The discipline of trace evidence is a multifaceted and complex area of forensic science that utilizes chemical and comparative analytical techniques to examine minute material transfers, which are typically invisible to the unaided eye. Within the Trace Evidence Unit, CBIFS conducts examinations and comparisons across the following subdisciplines: fire debris and ignitable liquids, gunshot residue, paint analysis, tape analysis, fibers and fiber-related evidence, general unknown substance analysis, physical match (physical fit) examinations, wood examination and identification.

The Trace Evidence Unit is highly valued despite being under-resourced. Staff reported a dedication to high-quality forensic work and expressed a strong commitment to maintaining standards, even when facing staffing shortages. Interviews highlighted that the quality management system was perceived as the strongest it has ever been. Staff showed resilience and a desire for the discipline to thrive, often finding ways to meet technical demands despite resource limitations.

Recommendation 46:

Evaluate Staffing in the Trace Evidence Unit	Due to being short-staffed following several departures and retirements, technical reviews for the Trace Evidence Unit are being outsourced to other states, which impacts turnaround time. This outsourcing, while necessary, raises sustainability concerns and poses a potential risk to internal capacity building and succession planning. To strengthen the long-term viability and effectiveness of the Trace Evidence Unit within CBIFS, the assessment team recommends a focused investment in both staffing and internal review capacity. The current reliance on external technical reviewers, while necessary in the short term, reflects an unsustainable model that places additional strain on an already under-resourced unit. By filling existing vacancies and strategically expanding the number of examiners, CBIFS can reduce the risk of burnout, improve turnaround times, and restore essential in-house expertise.

Recommendation 47:

Consider Growth Pathways and Professional Development	It is recommended that CBIFS prioritize professional development opportunities within the Trace Evidence Unit by expanding access to specialized training and encouraging participation in inter-laboratory collaborations and research initiatives. Investing in the continued growth of trace examiners will help ensure that the unit remains current with evolving methodologies, strengthens its contributions to the forensic science community, and fosters a culture of professional excellence within the organization.

Recommendation 48:

Conduct a Comprehensive Assessment of Trace Evidence Subdisciplines	CBIFS could consider conducting a comprehensive assessment of the Trace Evidence Unit to determine which subdisciplines are most frequently requested and of highest value to submitting agencies. Understanding demand at this level will allow the agency to make informed decisions about resource allocation, training priorities, and long-term sustainability.

Recommendation 49:

Evaluate the Trace Evidence Workflow to Gain Efficiencies	CBIFS could consider initiating a workflow review guided by process improvement methodologies to identify process inefficiencies, eliminate bottlenecks, and improve overall case throughput. As part of this effort, the assessment team also recommends introducing enhanced case management tools or dedicated support staff to help balance workloads and facilitate timely reviews, particularly during periods of high volume or resource constraints. These measures will help the Trace Evidence Unit remain responsive, efficient, and aligned with its mission of delivering high-quality forensic services.

The assessment team noted that the Trace Evidence Unit demonstrates notable commitment and technical strength but requires structural and leadership reinforcement to remain sustainable. Addressing staffing shortages, improving leadership responsiveness, and restoring in-house review capacity are key steps toward enhancing the Trace Evidence Unit.

Evidence Unit

Evidence technicians in CBIFS were consistently recognized for their professionalism, accuracy in evidence intake processing, and positive interactions with stakeholders. Many described a strong sense of ownership over their roles, and there was evident pride in adhering to proper chain-of-custody procedures and ensuring evidence was processed with integrity. Stakeholders and colleagues in CBIFS reported that interactions with evidence technicians were positive and customer-service-oriented, with very few complaints, despite the high volume of evidence submissions.

Team dynamics within the Evidence Units were generally cohesive. Technicians valued collaboration with each other and with case coordinators, and there was a shared commitment to making the workflow efficient. Staff also appreciated the technical leaders and case coordinators, particularly when they were available and engaged. The creation of the case coordinator position was noted as a helpful addition to resolving inconsistencies in case details at the time of submission. The assessment team perceived the evidence technicians as highly motivated, skilled, and competent. However, many reported feeling undervalued regarding their knowledge, skills, and abilities, particularly in terms of contributing to process improvements.

During the in-depth interviews conducted by the assessment team, several systemic themes emerged. One primary concern was inconsistency across labs regarding intake procedures, evidence storage, and communication. Another repeated theme across locations was frustration with leadership overriding submission guidelines. When managers approve evidence submissions that deviate from standard policy, especially without informing the team in the Evidence Unit, it leads to operational delays, increases the burden on already strained workflows, and leaves staff feeling overlooked due to a lack of communication. These actions also contribute to growing triage lists of special exceptions for evidence submission, which are difficult to process and audit efficiently. Additionally, several technicians reported confusion regarding the reporting structure, which created uncertainty in day-to-day tasks, such as determining priorities.

Performance evaluation processes were also flagged by staff as unclear. Staff indicated confusion about how to attain high marks and the purpose of the evaluation system. While

the process was generally perceived as fair, it lacked meaningful feedback mechanisms and future goal setting, thereby limiting its developmental value.

Recommendation 50:

Standardization of Evidence Intake and Processing Protocols Across all Labs	The assessment team recommends a comprehensive standardization of intake and evidence processing protocols across all labs, with routine refresher training to support consistency. This should include careful detail in intake documentation and reviews upon intake to limit clerical errors.

Recommendation 51:

Communication of Expectations When Approving Unique Submissions	To improve morale and operational transparency, lab leadership should consider reinforcing communication expectations when approving out-of-policy submissions and ensure that Evidence Unit staff are informed in advance of deviations.

Recommendation 52:

Clarify Performance Evaluation Criteria	It is advised that CBIFS leadership clarify performance evaluation criteria to staff. Integrating individual and team-based performance goals is recommended, as it will provide staff with a better understanding of professional development and recognition opportunities.

Taken together, these actions can support not only the operational integrity of CBIFS' Evidence Unit but also its cultural health, ensuring that technicians feel respected, supported, and connected to the broader mission of CBIFS.

Summary of Relevant Strengths

Forward Resolutions deeply values the insight, candor, and professionalism demonstrated by all individuals who participated in the in-depth interview process. The willingness of CBIFS staff and leadership to engage in open dialogue provided a rich foundation for understanding the operational realities and cultural dynamics of CBIFS.

The most effective assessments are those that not only identify areas of improvement but also recognize areas of strength and potential. Throughout this process, it has been evident that CBIFS possesses a dedicated and resilient workforce committed to the mission of public service and scientific excellence. The strengths identified in this report reflect that commitment.

It is important to note, however, that these strengths represent broad characterizations and overarching themes. They are not intended to reflect the level of granularity and detail captured in the opportunities and recommendations. The areas of strength should be viewed as complementary to, not in contrast with, the findings in this report. The strengths reflect the sound scientific competence and consistently high-quality work demonstrated by the forensic scientists at CBIFS.

STRENGTH	DESCRIPTION	ROI
Support from the State and CDPS Leadership	Through various interviews, it was highlighted that the core competencies and support from the state and CDPS have been encouraging.	Strong institutional backing enables resource allocation, promotes stability, and reinforces statewide commitment to forensic science.
CBIFS Deputy Director and Laboratory System Director	The hiring of the current Deputy Director and Laboratory System Director has been seen as a positive shift from previous CBIFS leadership. An opportunity exists to clarify their distinct roles and take accountability for prior leadership missteps.	Restoring internal trust, setting a tone of accountability, and creating clarity in decision-making strengthen leadership credibility and operational direction.

STRENGTH	DESCRIPTION	ROI
Staff Collaboration Across Disciplines	Staff work well together within and across disciplines. Evidence and toxicology technicians should be empowered to educate others on the importance of their roles and receive greater recognition for their contributions.	Enhanced teamwork and mutual respect promote efficiency, break down silos, and enhance operational cohesion.
Staff Embrace Quality Changes	Staff support quality improvement initiatives. Opportunity: Increase transparency of Incident Reviews (IRs) to help staff identify trends and track non-disciplinary IRs more easily.	Enhanced engagement in quality assurance enables early issue detection and promotes a culture of continuous improvement.
Awards and Recognition	Recognition systems exist, but perception issues remain. Opportunity: Broaden the criteria and geographic representation for awards to ensure fairness and inclusiveness.	More equitable recognition boosts morale, encourages broader participation, and reduces feelings of exclusion.
Good Pay and Staff Retention	Unlike many forensic organizations, CBIFS experiences high retention rates and employee satisfaction with pay. Staff are passionate about their roles and the impact they have on the justice system.	Low turnover preserves institutional knowledge, reduces training costs, and promotes organizational stability.
Woods Quality Investigation Response and Continued Accreditation	CBIFS took swift, high-priority action to address the Woods matter and protect accreditation. Opportunity: Continued transparency and critical handling ensured that trust was preserved despite the impacts of the backlog.	Protecting accreditation and demonstrating accountability preserved public trust and system credibility.
Facilities	CBIFS has prioritized and made meaningful strides toward acquiring and securing state-of-the-art forensic laboratory facilities, recognizing the critical role modern infrastructure plays in supporting high-quality scientific work.	Investments in advanced laboratory facilities improve workflow efficiency, support the integration of new technologies, enhance staff safety and morale, and ensure compliance with accreditation standards.

STRENGTH	DESCRIPTION	ROI
CBI Forensic Services Committee	The formation of the committee is a clear strength in Colorado's ongoing efforts to elevate the quality and integrity of its forensic science system. This was an essential step by CBIFS, with support from CBI, CDPS, and the Governor's Office, in taking a proactive and strategic step to reinforce its forensic science infrastructure.	Yields significant returns by strengthening public trust and improving the credibility of forensic results in court. It also serves as a conduit for stakeholder input and professional guidance, which supports continuous quality improvement, enhances operational efficiency, and reinforces the scientific impartiality expected of a public forensic laboratory system.
Trust	Stakeholder assessments indicated overwhelming confidence in CBIFS, with over 95% of surveyed and interviewed individuals expressing full trust in the laboratory's results, conclusions, and expert opinions. CBIFS' scientific staff were consistently praised for their subject matter expertise, professionalism in testimony, and responsiveness in prioritizing cases to meet public safety and judicial demands.	This high level of trust and professional recognition directly enhances CBIFS' credibility within the justice system. It reduces challenges to forensic evidence in court, accelerates investigative timelines, and strengthens collaboration across law enforcement and legal partners.

Summary of Recommendations

RECOMMENDATION	DESCRIPTION	ROI
1. Continued Support and Resources for CBIFS Leadership	The assessment team recommends that CBIFS leadership have access to ongoing external support and resources as they continue to navigate the ongoing case backlog review and implement necessary reforms. Future evaluations should assess how effectively the management team balances case output with staff well-being and strategic foresight. Strengthening these areas will be essential to restoring public trust in CBIFS' operations and ensuring its mission is carried out with both excellence and integrity.	Strengthens leadership effectiveness, improves public trust, and supports sustained organizational reform.
2. Review the Frequency of Non-Conformities Regarding Evidence Policy under D.7.a.	It is recommended that under the oversight of the Quality Unit, a targeted review and refinement of procedures under Evidence Policy 1 (EP1), particularly those outlined in section D.7.a., is conducted to identify if there are any systemic procedural gaps in evidence processing and handling and to either correct or modify the workflow or procedure. This activity may involve a risk assessment.	Enhances processes and reduces the risk of quality issues.
3. Develop a Communication Strategy Around the Quality Assurance Program Enhancements	It is recommended that CBIFS develop a thoughtful, targeted, and proactive communication strategy to ensure both internal and external stakeholders, including law enforcement, prosecutors, defense counsel, legislators, and members of the judiciary, are informed of the recent enhancements made to the quality assurance program. Proactive and transparent communication regarding these structural improvements will help build a broader understanding and reinforce confidence in CBIFS' ongoing commitment to scientific excellence, accountability, and continuous improvement.	Builds confidence, reinforces credibility, and improves stakeholder relationships.

4. Establish a Recurring Training Academy or Symposium for Stakeholders	This initiative would serve as a platform to keep stakeholders informed about CBIFS developments, clarify capabilities, discuss operational health, and collaboratively address challenges. The proposed forum could convene a diverse array of stakeholders, including prosecuting attorneys, judges, defense attorneys, innocence projects, the ACLU, university partners, law enforcement agencies, fellow forensic science service providers, and coroners and medical examiners. By bringing together these key participants, the symposium would foster stronger relationships, encourage collaborative opportunities, and work towards rebuilding trust across the criminal justice system. Regular engagement through such a symposium would promote transparency, enhance mutual understanding, and support the continuous improvement of forensic services. It would also provide a structured environment for stakeholders to stay informed about changes, share their perspectives, and contribute to the evolution of forensic practices within the state.	Fosters trust, collaboration, and shared understanding across the criminal justice system.
5. Communicate the Extensive Scope and Resource Demands of the Woods Quality Investigation	It is recommended that CBIFS communicate to its partners the extensive scope and resource demands associated with the case reviews conducted as part of the high-priority Woods quality investigation. It became clear during the assessment that many stakeholders were not fully aware of this effort's complexity, scale, and far-reaching implications, including the substantial volume of materials reviewed and the breadth of staff involvement. Personnel from the Biological Sciences section and staff from multiple disciplines across the laboratory system contributed significantly to this undertaking, dedicating a substantial amount of time and expertise. This comprehensive review not only played a critical role in supporting the preservation	Increases transparency and helps manage stakeholder expectations.

	of CBIFS' accreditation status but also had a secondary impact on routine operations, contributing to increased turnaround times and the accumulation of a backlog. Transparent communication about the nature and consequences of this effort would help contextualize current operational challenges and foster greater understanding and support among external stakeholders.	
6. Make QIRs Accessible for all CBIFS Staff	It is recommended that CBIFS consider giving all staff access to QIRs. If access to QIRs were transparent and readily available, staff concerns would likely not have emerged so strongly in the assessment materials. Several assessors requested that staff pull up QIRs in the software and noted some inabilities. However, it was made very clear that CBIFS is moving toward a more transparent external platform, with plans to exhibit QIRs in an accessible manner on the CDPS website. The assessment team hopes that this transparency will also extend to all staff members.	Supports transparency, preparedness, and a culture of quality.
7. Integrate all Technical Leaders into the Quality Unit	It is recommended that CBIFS explore aligning its quality oversight model by integrating technical leaders from all forensic disciplines more closely within the quality assurance framework. Specifically, it is recommended that program managers in complex disciplines, such as Toxicology and DNA, focus on overseeing technical programs and maintaining discipline-specific quality, rather than assuming the additional responsibility of direct staff supervision. This would allow these subject matter experts to devote more attention to the scientific integrity, validation, and regulatory compliance of their respective programs, which are critical functions that support the overall effectiveness of the laboratory system.	Reinforces dedication to quality operations and displays staff alignment.

8. Increase the Number of Laboratory Manager Positions	A consistent and pressing operational concern identified across all laboratory locations is the insufficient number of laboratory manager positions relative to the volume of personnel, disciplines, and operational demands within CBIFS. The current supervisory structure is inadequate to support the growing complexity and scale of forensic operations. The assessment team recommends immediately adding at least one to two laboratory managers to each of the Arvada, Pueblo, and Grand Junction laboratories. It is recommended that there also be a commitment to re-evaluate and adjust leadership staffing ratios as future hiring occurs. Staff at these locations expressed concerns about delayed decision-making, limited access to leadership, and uneven distribution of support due to the sheer volume of responsibilities placed on too few individuals. This not only impacts morale and communication but also jeopardizes the ability to effectively implement training plans, regularly monitor scientific quality of work, and respond to the day-to-day needs of staff. Incorporating additional management roles as part of any staffing expansion is a practical necessity and a strategic investment in organizational resilience, employee support, and operational excellence.	Improves leadership bandwidth, staff support, and operational efficiency.
9. Implementation and Sustainment of a Values-Driven Leadership Development Program	It is recommended that CBIFS consider working with an external consultant to facilitate the implementation of a values-driven leadership development program specifically designed for the CBIFS leadership and management team. It could focus on tactical and administrative leadership competencies, as well as the deeper interpersonal and cultural dimensions of effective leadership. Central to this program should be targeted training and coaching in trust-building, effective coaching, conflict management and resolution, accountability, meeting facilitation, and	Strengthens leadership skills, morale, and organizational culture.

	psychological safety. These skill sets are essential for navigating the complexities of forensic science supervision, particularly in an environment where morale, communication, and transparency have been challenged.	
10. Facilitate a Deliberate Reintroduction of CDPS HR's Services and Resources	It is recommended that staff and programs within CDPS Human Resources be reintroduced to CBIFS staff. This will foster relationship-building between CDPS HR staff and CBIFS staff, increasing the visibility of CDPS HR's supportive functions across the organization.	Enhances trust and HR accessibility, improving organizational cohesion.
11. Development of an Advanced Agency-wide Onboarding Program	The development of an enhanced onboarding program should be considered. In partnership with an external consultant, CBIFS leadership, CDPS HR, CBI leadership, and CDPS executive leadership, foster agency-wide orientation and ensure new employees feel connected to CBIFS and the broader mission of the Colorado Department of Public Safety.	Improves early engagement, retention, and integration of new hires.
12. Implement Clear Boundaries Around Use of Overtime	CBIFS should consider implementing clear boundaries around overtime use to support staff well-being, ensure operational efficiency, and uphold the highest standards of scientific integrity. Establishing formal policy or guidelines will help ensure that overtime is applied equitably, managed responsibly, and aligned with individual capacity and organizational sustainability.	Promotes sustainable workload management and staff wellness.
13. Ombudsman Position Dedicated to CBIFS	It is recommended that CBIFS consider adding an Ombudsman position. This position can be a confidential, neutral, and independent point of contact for CBIFS staff, and they are encouraged to report directly to the Deputy Director of CBIFS, thereby maintaining operational independence while ensuring high-level visibility and executive support. It may be beneficial to pilot this position for an initial 18-24-month term, during which time the role's utilization, perceived trust, and organizational impact can be evaluated. This pilot period would allow for adjustments in scope or	Builds trust, supports staff, and reinforces cultural accountability.

	structure as needed, while providing a tangible resource for employees during the cultural rebuilding process.	
14. Pursue Legislative Enhancements to Establish Statutory Privilege for Defense-Requested Forensic Testing	It is recommended that CBIFS consider advocating for legislative enhancements to establish a framework that preserves impartiality by recognizing privileged access to court-ordered forensic testing for the defense. This recommendation is not intended to promote additional or duplicative retesting, but rather to support the foundational principles of fairness and confidentiality in the justice system. Specifically, the framework could clarify that a court order for forensic testing, requested by the defense and approved by the presiding judge, would be protected as privileged work product and not subject to disclosure without the defense's consent. This approach aligns with ISO/IEC 17025 standards, which emphasize impartiality and customer confidentiality. Creating a separate procedural pathway for court-ordered defense access to CBIFS would help ensure that both prosecution and defense are afforded equal footing while maintaining scientific neutrality.	Supports fairness, compliance, and stakeholder trust.
15. Dedicated Legal Counsel within CBIFS	It is recommended that CBIFS have dedicated legal counsel who should report to a member of the crime laboratory, ideally the Deputy Director or Laboratory System Director.	Enhances legal clarity, reduces risk, and improves responsiveness.
16. Establish CBIFS as an Independent Division	CDPS currently serves as the parent agency of the CBI, under which the Forensic Services section operates. It is recommended that the Forensic Services section, including the Deputy Director position overseeing forensic operations, be structurally separated from CBI and established as an independent, standalone division within the CDPS.	Reinforces independence, objectivity, and best practice alignment while benefiting from the structurally sound policies and practices of CDPS.

17. Relocate CBI Investigations Staff from CBIFS Facilities	It is recommended that CBI Investigations staff be relocated from CBIFS facilities. This would enable CBIFS staff to maintain dedicated laboratory and office space, fostering an environment that prioritizes scientific objectivity, operational efficiency, and professional boundaries. It would also preserve the integrity and independence of forensic operations, mitigating both real and perceived conflicts of interest.	Reduces conflict of interest and enhances lab neutrality.
18. Addition of Specific Positions in CBIFS	In addition to other positions mentioned within this report, the following staffing additions are recommended: • **Case Coordinators:** These positions filter out potentially biasing information, such as police reports, before they reach scientific staff, thereby preserving the objectivity of forensic analyses. The position description should also include opportunities to use them at the front end of the case intake process. • **Firearms Examiners:** These positions are needed to reestablish the Firearms Unit at the Pueblo Laboratory. More firearms examiners are recommended to address the increased workload and reduce case backlogs in the Firearms Unit, particularly for cases that occur in the geographical region served by the Pueblo Laboratory. • **DNA Analysts:** These positions are needed to meet the increasing demands of the Biological Sciences Unit. More DNA analysts across all CBIFS labs are recommended to enhance DNA analysis capacity and ensure timely case processing.	Directly increases lab capacity and turnaround performance.

	• **Toxicologists:** These positions are needed to meet the increasing demands of the Toxicology Unit. More toxicologists are recommended in the Arvada, Pueblo, and Grand Junction locations to enhance the laboratory's ability to conduct comprehensive toxicological analyses. • **NIBIN Technical Leader or Lead Worker:** This position is essential for continuing to facilitate the success of the CBIFS' NIBIN program. One position is recommended to ensure appropriate technical leadership of the CBIFS' NIBIN program.	
19. Addition of IT Positions Embedded within CBIFS	It is recommended that CBIFS have dedicated, full-time IT staff responsible for managing the LIMS. Advancements, upgrades, and maintenance in technology require dedicated personnel to support the intricate operational and scientific complexities within a forensic science system. While the OIT model may not currently allow for this, it is essential to acknowledge this critical need.	Reduces downtime, increases tech support responsiveness, and enables modernization.
20. Upgrade to the Most Recent Version of LIMS Software	An upgrade to the most recent version of the LIMS used by CBIFS is recommended. The existing version is outdated and lacks flexibility, integration potential, and user-friendly interface improvements offered in newer releases. An upgrade would also allow for more seamless interfacing with related platforms, digital dashboards, and potentially interfacing opportunities with the court systems. These are key steps toward a more responsive and transparent forensic workflow.	Boosts efficiency, usability, and cross-platform compatibility.

21. Conduct a Review and Possible Renegotiation of the Existing MOU	A review and possible renegotiation of the existing NCRFL MOU is advised. This would modernize and standardize the MOU framework and should be done to clarify governance, authority, and classification roles to reflect current operational demands. Establishment of a dedicated CBIFS leadership role with authority over NCRFL should also be considered. This would create accountability and operational consistency through centralized scientific oversight and could be an opportunity through the Quality Unit.	Enhances clarity, accountability, and strategic alignment.
22. Integrate NCRFL Personnel into a Unified Classification and Pay Structure	Integrating NCRFL personnel into a unified classification and pay structure should be considered. This would ensure equity and career mobility by aligning staff with state employment standards and allowing them all access to statewide resources.	Promotes equity, staff morale, and retention.
23. Build a Succession Planning and Leadership Development Program	A succession plan and leadership development program should be considered. This would promote qualified internal candidates and ensure leadership continuity regardless of agency affiliation. Consideration should be given for the leadership program to be merit-based.	Ensures continuity and supports leadership growth.
24. Strengthen the Balance Between Performance Expectations and Workplace Well-Being	An external firm should be considered to assist with conducting capacity analyses across disciplines, determining reasonable, data-driven workload expectations, and developing SMART-aligned KPIs that reflect both scientific quality and operational realities. Additionally, they should support, facilitate, and assist management in clearly and consistently communicating expectations, emphasizing fairness, transparency, and employee well-being. Since unspoken expectations are premediated resentments, all performance expectations must be clearly defined and communicated in advance to ensure clarity and understanding. CBIFS can move toward a more balanced, inclusive, and sustainable performance culture that values scientific	Promotes fairness, accountability, and allows for proper capacity planning.

	excellence, supports its workforce, and reinforces a foundation of trust and accountability.	
25. Re-evaluate the Current Award and Recognition Programs	A re-evaluation of the current award and recognition programs should be considered. This process should be aligned with any revised key performance indicators (KPIs), updated workflows, and organizational values that emerge from ongoing performance and capacity assessments. This should also include assessing the award and recognition programs in CBI and CDPS.	Improves morale and motivation.
26. Additional Management Positions in the Biological Sciences Unit	Additional laboratory manager positions are needed to effectively lead the Biological Sciences Unit. Before adding any positions, CBIFS should ensure that current management has the appropriate skill sets to effectively lead a team with a demanding workload and recover from a stressful event. Individuals struggling with performance should receive targeted coaching emphasizing emotional intelligence and team development. These efforts should be made before adding the necessary positions to the management team of the Biological Sciences Unit, to ensure cohesive and effective management and leadership of the Unit.	Strengthens team function and oversight in high-demand areas.
27. Develop Healthy Team Dynamics	Multiple sources of feedback consistently emphasized the need for all members of the Biological Science Unit, including laboratory managers, to develop stronger, more consistent, and trust-based relationships. These are needed to improve communication and employee engagement.	Enhances collaboration and trust.
28. Establish a Centralized Training Group for the Biological Sciences Unit	The creation of a centralized training group should be considered. The training group should be staffed by individuals with dedicated time to focus solely on training responsibilities and developing a modular, standardized curriculum aligned with onboarding needs and case complexity.	Standardizes onboarding and training, improving readiness.

29. Evaluate DNA Workflows to Gain Efficiencies	Evaluation of the DNA workflows to gain efficiencies is advised. Significant staff feedback described a readiness to pilot or refine batching methodologies, particularly in high-volume areas such as reference sample processing and CODIS uploads. These methods increase visibility and enhance these complex workflows.	Improves throughput and resource utilization.
30. Introduce a Case Complexity Scoring Model and Workflow Dashboards in the Biological Sciences Unit	A case complexity scoring model should be considered to categorize cases as light, medium, or heavy. Workflow dashboards should be implemented to improve visibility into workload distribution, turnaround times, rush designations, and backlog management. Each lab location should appoint a designated Workflow Coordinator to manage and oversee these systems.	Enables data-driven workload balancing and planning.
31. Expand the Firearms Unit to the Pueblo Laboratory	An expansion of the Firearms Unit to the Pueblo Laboratory should be considered. Investing in the expansion and structural support of a Firearms Unit at the Pueblo Laboratory is critical to maintaining a high-performing, sustainable forensic system that meets the needs of stakeholders across Colorado.	Improves accessibility and ensures sufficient and pertinent scientific coverage in that region.
32. Ensure Perspectives of the Firearms Unit are Considered in Management Discussions	CBIFS should consider including a staff member with direct firearms experience in management discussions. They would ensure that decisions are made considering the discipline's unique operational, technical, and training challenges. Another benefit is that the needs of firearms can be effectively advocated for at the management level.	Enhances discipline-specific advocacy and resource alignment.
33. Develop Healthy Team Dynamics	Multiple sources of feedback consistently emphasized the need for all members of the Firearms Unit, including laboratory managers, to develop stronger, more consistent, and trust-based relationships. These are needed to improve communication and employee engagement.	Boosts engagement and team communication.

34. Evaluate Firearms Unit Workflows to Gain Efficiencies	It is recommended that workflow improvements be considered in the Firearms Unit. CBIFS staff and stakeholders identified the need for a strategic evaluation and restructuring of existing workflows to enhance operational efficiency, reduce bottlenecks, and improve overall throughput.	Improves operations.
35. Evaluate the Firearms Unit Training Program to Gain Efficiencies	CBIFS should consider evaluating the firearms examiner training program to ensure examiner competency rather than immediate mastery, allowing for steady development in a complex and highly scrutinized discipline. Consideration should be given to creating an Assistant Technical Unit Leader for Firearms, who could provide much-needed support in managing training programs and onboarding new staff.	Enhances onboarding and technical oversight.
36. Facilitated Discussions with the Latent Prints Unit Discussing Roles and Responsibilities	Feedback from numerous interviews suggested ambiguity surrounding the roles and responsibilities of laboratory managers, technical leaders, and discipline liaisons. A structured conversation would help surface assumptions, resolve misunderstandings, and lay the groundwork for greater alignment and understanding. Following this session, the team should develop and distribute a clearly defined leadership structure chart specific to the Latent Prints Unit. This chart should outline the scope and boundaries of each role and be embedded into onboarding materials and annual team refreshers to ensure continued clarity.	Reduces role ambiguity and enhances coordination.
37. Develop a Cohesive Latent Prints Unit Training Plan	Staff voiced concerns about inconsistent onboarding timelines, redundant training elements, and delays in practical experience following external courses from the outsourced training vendors. A collaborative planning session would enable the team to design a standardized training framework that incorporates recognized	Streamlines onboarding, training and reduces redundancy.

	external training equivalencies, while streamlining internal expectations and reducing unnecessary repetition. The group would benefit from a facilitated work session dedicated to developing a cohesive training plan.	
38. Enhance Transparency in the Verification Process	Enhancing transparency in the verification process is advised as it strengthens scientific integrity and workload equity. This includes publishing and routinely updating the verification rotation list to promote confidence in the impartiality of assignments. Additionally, sequential unmasking and blind verification procedures should be expanded as part of a broader commitment to scientific rigor.	Reinforces scientific rigor.
39. Adopt a Case Submission Policy for the Latent Prints Unit	Operationally, adopting a staged case submission policy in the Latent Prints Unit is advised. This would help ensure more balanced evidence review workloads by encouraging submitting agencies to provide an initial set of probative items, with additional submissions made as needed based on results.	Reduces unnecessary backlogs and optimizes resources.
40. Strengthen the Innovation Workflow	The Innovation Workflow presents a valuable opportunity for staff engagement and process improvement. Still, it could be significantly strengthened through thoughtful redesign or software enhancements incorporating clear timelines, consistent feedback mechanisms, and transparent tracking of idea implementation.	Fosters and adds credibility to staff engagement and continuous improvement.
41. Incorporation of MOU Staff	It is advised that MOU staff be fully incorporated into lab communications, decision-making, and development opportunities to reduce structural inequities. Through interviews, the assessment team discovered that while MOU staff attend regular CBIFS meetings and updates, it could be worthwhile for CBIFS to engage in regular, facilitated roundtables to gain insight into operational opportunities and perspectives. This will allow staff to feel heard.	Promotes inclusion and cross-team cohesion.

42. Improve Validation Efforts	It is advised that any validation efforts be given a reasonable amount of time and coordinated support to advance scientific capabilities system-wide.	Enables scientific advancement and quality assurance.
43. Re-evaluate the Use of Productivity Metrics and Case Output in the Toxicology Units	The current emphasis on case output and productivity metrics should be recalibrated to better reflect the importance of scientific rigor, training, and professional contributions. A more balanced performance framework, one that values case complexity efforts, method validation, mentoring, and peer collaboration, will help shift the culture from a volume-first to a purpose-driven approach in science. This adjustment is especially critical for new analysts, who often feel pressured to meet productivity expectations before they are fully integrated into the discipline.	Supports analyst development and method quality.
44. Assess Toxicology Workflow to Gain Efficiencies	Workflow inefficiencies were consistent across all sites, particularly in post-analytical processes. CBIFS should consider identifying and eliminating redundant batch reviews, streamlining documentation steps, and clarifying transitions between analytical and administrative roles. These efforts will help reduce the backlog of unauthored cases, minimize bottlenecks, and improve overall case progression. In tandem, the current opportunity of enhanced procedures for extract transfers between labs must be addressed immediately. A standardized inter-lab sample tracking protocol is essential to safeguard evidence integrity and maintain confidence in analytical outcomes.	Improves case progression and workflow processes to enhance efficiency.
45. Prioritize Instrument Infrastructure and Technological Support	The Toxicology Unit relies on complex instrumentation that is routinely impacted by system incompatibilities due to the absence of dedicated forensic IT support and delayed maintenance. The assessment team recommends embedding IT resources for CBIFS, as previously mentioned in this report. Additionally, a coordinated strategy should be developed to	Reduces downtime and enhances technical capacity.

	accelerate the implementation and validation of advanced instruments, such as the QToF system, across all sites. This would include scheduling dedicated validation time and formalizing workflow integration plans.	
46. Evaluate Staffing in Trace Evidence Unit	Due to being short-staffed following several departures and retirements, technical reviews for the Trace Evidence Unit are being outsourced to other states, which impacts turnaround time. This outsourcing, while necessary, raises sustainability concerns and poses a potential risk to internal capacity building and succession planning. To strengthen the long-term viability and effectiveness of the Trace Evidence Unit within CBIFS, the assessment team recommends a focused investment in both staffing and internal review capacity. The current reliance on external technical reviewers, while necessary in the short term, reflects an unsustainable model that places additional strain on an already under-resourced unit. By filling existing vacancies and strategically expanding the number of examiners, CBIFS can reduce the risk of burnout, improve turnaround times, and restore essential in-house expertise.	Restores internal capacity and sustainability, reduces employee burnout and improves timeliness.
47. Consider Growth Pathways and Professional Development	The assessment team recommends that CBIFS prioritize professional development opportunities within the Trace Evidence Unit by expanding access to specialized training and encouraging participation in inter-laboratory collaborations and research initiatives. These activities enhance technical expertise and analytical capabilities, promoting staff engagement, innovation, and scientific leadership. Investing in the continued growth of trace examiners will help ensure that the unit remains current with evolving methodologies, strengthens its contributions to the forensic science community, and fosters a culture of professional excellence within the organization.	Encourages retention and scientific excellence.

48. Conduct a Comprehensive Assessment of Trace Evidence Subdisciplines	CBIFS should consider conducting a comprehensive assessment of the Trace Evidence Unit to determine which subdisciplines are most frequently requested and of highest value to submitting agencies. Understanding demand at this level will allow the agency to make informed decisions about resource allocation, training priorities, and long-term sustainability.	Guides efficient resource allocation.
49. Evaluate the Trace Evidence Workflow to Gain Efficiencies	CBIFS could consider initiating a workflow review guided by process improvement methodologies to identify process inefficiencies, eliminate bottlenecks, and improve overall case throughput. As part of this effort, the assessment team also recommends introducing enhanced case management tools or dedicated support staff to help balance workloads and facilitate timely reviews, particularly during periods of high volume or resource constraints. These measures will help the Trace Evidence Unit remain responsive, efficient, and aligned with its mission of delivering high-quality forensic services.	Enhances throughput and responsiveness.
50. Standardization of Evidence Intake and Processing Protocols Across all Labs	The assessment team recommends a comprehensive standardization of intake and evidence processing protocols across all labs, with routine refresher training to support consistency. This should include careful detail in intake documentation and reviews upon intake to limit clerical errors.	Increases consistency and reduces clerical errors.
51. Communication of Expectations When Approving Unique Submissions	To improve morale and operational transparency, lab leadership should consider reinforcing communication expectations when approving out-of-policy submissions and ensure that Evidence Unit staff are informed in advance of deviations.	Promotes transparency and staff trust.
52. Clarify Performance Evaluation Criteria	It is advised that CBIFS leadership clarify performance evaluation criteria to staff. Integrating individual and team-based performance goals is recommended, as it will provide staff with a better understanding of professional development and recognition opportunities.	Supports clarity, motivation, and career development.

References

In preparation for and throughout this assessment, Forward Resolutions consulted a range of scholarly, industry, and public sector materials to inform our understanding of organizational health, leadership dynamics, forensic science operations, and workplace recovery. These resources were instrumental in establishing a baseline of expectations regarding effective governance, psychological safety, and scientific accountability within complex systems.

By grounding the assessment in evidence-based frameworks and nationally recognized best practices, strengths and areas of opportunity within the CBIFS were identified. The references listed below provided valuable context, guided an analytical approach, and supported the development of actionable recommendations tailored to the agency's needs.

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