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To: Members of the Appropriations and Judiciary Committees
From: Doug Nichols, Legislative Fiscal Office
RE: LR535 Interim study to evaluate and identify the objectives of the Criminalistics
Laboratory Division of the Nebraska State Patrol
Date: May 28, 2010

The information in this paper was compiled to provide information on the Nebraska State Patrol Criminalistics Laboratory to the members of the Appropriations and Judiciary Committees.

First, you will find the interim study, followed by an overview of the NSP Crime Laboratory from the State Patrol's website. Any comments or clarifications that the Legislative Fiscal Office analyst (LFO) felt necessary are included in [brackets]. Additional information received from the State Patrol is included and noted where appropriate.

Second, information on budget, backlog and turnaround time, and additional DNA samples is included, followed by laboratory statistics.

Lastly, there is information on other crime labs in Nebraska. According to the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB), Nebraska has two accredited labs: University of Nebraska, Human DNA Identification Molecular Diagnostics Laboratory, Omaha, NE and Nebraska State Patrol, Lincoln Crime Laboratory, Lincoln, NE.
<http://www.ascl-d-lab.org/accreditedlabs.html#ne>

Please feel free to contact LFO if you require further information.

ONE HUNDRED FIRST LEGISLATURE
SECOND SESSION
LEGISLATIVE RESOLUTION 535

Introduced by Conrad, 46.

PURPOSE: The Nebraska State Patrol is a multidimensional law enforcement agency established by legislative mandate in 1937. The State Patrol's responsibilities have expanded from traffic enforcement and accident investigations to include criminal and drug investigations, safety education, truck safety and regulation, liquor enforcement, the central repository for criminal histories and fingerprints, and the criminalistic laboratory, which is charged with the duty to provide scientific laboratory services to the various local, state, and federal law enforcement agencies throughout the state.

The purpose of this study is to evaluate and identify the objectives of the Criminalistics Laboratory Division of the Nebraska State Patrol and to evaluate and identify necessary revenue and funding issues needed to support the goals, objectives, and operation of the division as a stand-alone entity and in the broader context of the sound and efficient provision of Nebraska's public safety, law enforcement, criminal investigation, and judicial systems.

NOW, THEREFORE, BE IT RESOLVED BY THE MEMBERS OF THE ONE HUNDRED FIRST LEGISLATURE OF NEBRASKA, SECOND SESSION:

1. That the Appropriations and Judiciary Committees of the Legislature shall be designated to conduct a joint interim study to carry out the purposes of this resolution.
2. That the committees shall upon the conclusion of their study make a report of their findings, together with their recommendations, to the Legislative Council or Legislature.

Overview of the State Patrol's Crime Laboratory

The following information on the Crime Laboratory was taken from the State Patrol's website: <http://statepatrol.nebraska.gov/CrimeLab.aspx>

The Nebraska State Patrol Crime Laboratory is a full service forensic laboratory currently located in Lincoln. The Crime Laboratory Division was established by Nebraska State Statute in 1971 and became operational in July of 1973. The legislative mandate under Nebraska State Statute 81-2010 is to "...perform services necessary for the recognition and proper preservation, identification, and scientific analysis of evidence materials pertaining to the investigation of crimes." Key functions carried out by the Crime Laboratory in support of that mandate are listed in our Mission Statement (below). The Division is entirely government funded and serves all local, county, state, federal and military law enforcement agencies in Nebraska.

When the Crime Laboratory started operations in 1973, it consisted of a questioned documents examiner, a trace analyst, a firearms examiner and a photographer. The first full year of operation the laboratory analyzed 396 cases. Serology testing was added in 1975 and in 1983, drug and toxicology testing was transferred from the State Health Laboratory to the Crime Laboratory. Soon thereafter, a Satellite Laboratory was established in North Platte to analyze drugs for western Nebraska. Later toxicology testing was added at the Satellite Lab and in 2005 a latent print section was added at both locations.

In 1998, the Crime Laboratory in Lincoln moved to a larger facility and added DNA testing capabilities. The Satellite Laboratory was closed in 2009 and the employees in North Platte were transferred to the Lincoln facility.

Additional information from the State Patrol on the Satellite Laboratory in North Platte:

According to Patrol records, to date, the total cost of closing the Satellite Lab was \$38,489. Of that amount \$10,220 was paid for with a federal grant, resulting in a total cost of \$28,269 to the state of Nebraska. The costs included renovation at the Lincoln facility to accommodate the North Platte staff and services, restoration of the Satellite Lab facility to pre-occupation condition, move of equipment/supplies and relocation of staff. Still pending is the relocation of one staff member which has been delayed due to extended medical leave.

Due to consolidation of the facilities, the Patrol has been able to reduce staffing in the Controlled Substances Section by cutting two grant-funded forensic scientist positions. Two state vehicles that had been assigned to the Satellite Lab have been turned in, as they are no longer needed.

The NSP Crime Laboratory has limited records regarding total operating costs and depends upon the Accounting Division for detailed record keeping. However, based upon the Patrol's information, yearly operating costs of the Satellite Lab in 2008 that did not transfer to the Lincoln Lab were estimated to be about \$38,073, including, LIMS software [Laboratory Information Management System (LIMS)], equipment maintenance, phones, equipment lease, required annual inspections, janitorial services, alarm system contract, and facility rent. Most costs associated with purchasing chemicals, standards and other supplies transferred to the Lincoln Lab.

First year savings from closing the Satellite Lab were used to defray the costs of closing the laboratory. Subsequent year's savings will be utilized for increasing costs of maintenance contracts for laboratory equipment.

The Crime Laboratory is now housed solely in the Lincoln facility, has a staff of 24 and analyzes approximately 4,000 cases per year. The Crime Laboratory currently includes the following analysis areas: Drug Chemistry, Latent Fingerprints, Biology/DNA, Trace Chemistry, Questioned Documents, Toxicology, and Firearms and Tool Marks.

The Crime Laboratory is accredited by the American Society of Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB). ASCLD/LAB Accreditation is a nationally recognized achievement for forensic laboratories. The accreditation process includes the evaluation of the lab against standards covering every area of the lab's operation including analytical procedures, evidence handling, security, safety, proficiency testing, testimony, and facilities.

MISSION STATEMENT

The mission of the Nebraska State Patrol Crime Laboratory is to serve as a state leader in the field of forensic science; to provide scientific and technical assistance and service to the State Patrol and other law enforcement agencies; to educate and disseminate scientific information to state and local agencies regarding forensic science matters.

Key functions carried out by the Crime Laboratory in support of this mission include:

- To properly receive, record, retain and return physical evidence submitted to the Laboratory;
- To provide timely, effective and impartial forensic analysis in support of law enforcement activities;
- To provide expert testimony in courts of law;
- To provide instruction to law enforcement personnel and other members of the criminal justice system in the areas of collection and preservation of physical evidence, as well as the capabilities of the Laboratory;
- To implement health, safety and environmental laws and regulations, as well as laboratory security requirements;
- To provide educational information and support to individuals and agencies who request our help in exploring or developing forensic science as a profession;
- To adhere to a quality assurance system that ensures that the final product generated by the Laboratory is of the highest quality possible while meeting the needs of the criminal justice community.

Crime Laboratory Budget Information

	Expenditures			Budgeted
	FY06-07	FY07-08	FY08-09	FY09-10
General Fund	\$2,066,475	\$2,200,545	\$2,248,414	\$2,372,475
Federal Fund	\$ 340,192	\$ 765,836	\$ 507,247	\$ 450,000
Total	\$2,406,667	\$2,966,381	\$2,755,661	\$2,822,475

There are currently 24 FTE's in the Crime Laboratory. The State Patrol does not charge for any of their Crime Laboratory services, as they are entirely tax and grant funded.

Backlog and Turnaround Time

There is a six to nine month turnaround time for forensic testing at the NSP Crime Laboratory. The lab at University of Nebraska Medical Center has a faster turnaround time, but the tests cost \$500 (Lincoln Journal-Star, April 21, 2010).

In response to questions from LFO, the State Patrol states that one of their goals and objectives for 2010 is to decrease backlogs in the Biology/DNA, Latent Prints, Firearms/Toolmarks and Trace Evidence Sections at the NSP Crime Lab and to maintain turnaround time in the Controlled Substance and Toxicology Sections to one month or less.

In a follow-up question from LFO regarding backlogs, the State Patrol stated the following regarding addressing casework backlogs:

- Live video testimony options are being explored to allow for remote court testimony by analysts. If this goal can be achieved, a great deal of time spent traveling to and from court and waiting to testify can be saved and spent on working cases instead.
- Biology/DNA and Firearms/Tool Marks backlogs (including footwear and tire tread examination backlogs) are expected to decrease when all trainees have completed their training programs and are independently working cases, assuming that the Crime Lab is able to retain all existing staff.
- Current on-going cross training of chemistry staff to assist in the Trace Evidence Section is expected to reduce backlog of arson/accelerant cases.
- The Crime Lab is developing a new submission policy which will involve submitting officers to prioritize the items for testing at the time of submission, with the goal of reducing time spent testing items of no probative value or calling investigators to discuss testing needs.
- The Crime Lab continues to look for more efficient technologies and methods and implements them whenever feasible.
- The Crime Lab participated in a process mapping exercise in the Biology/DNA Section and identified a number of opportunities for process improvement to increase efficiency. The Crime Lab has been working on implementing changes as a result of the process mapping exercise.

- The Biology/DNA Section has recently started using new extraction and liquid handling robots and a new multicapillary genetic analyzer. These new additions greatly increase the number of samples that can be processed through the DNA Section while minimizing the hands on work required of the analysts. This should increase efficiency, once all of the analysts have completed training. The Crime Lab plans to add an additional multicapillary genetic analyzer with upcoming grant funding.
- The Biology/DNA Section will soon be adding a DNA Module to their existing Laboratory Information Management System (LIMS) program which will simplify complex sample tracking and is expected to streamline workflow and increase efficiency in the section.
- The Crime Lab is planning to purchase an additional comparison microscope for the Firearms/Tool Marks Section which is superior to the older model, simplifies the modifications needed to examine items of various sizes and will alleviate wasted time spent waiting for an available comparison microscope. This is expected to increase efficiency.

Additional DNA Samples

Laws 2010, LB190, was enacted in 2010 and it requires DNA testing for all felons. The following table shows the estimated number of additional felons that will require testing:

Inmates and probationers needing DNA testing:	FY2010-2011	FY2011-2012*
Existing	4,128	-
New	3,380	3,380
Total	7,508	3,380
*This is the estimated annual amount for each year forward.		

The State Patrol will use two federal grants to handle the additional samples estimated by enactment of LB190. The federal grants are specifically for use with the CODIS [Combined DNA Index System] databank samples.

One of the federal grants will fund outsourcing samples to an approved private laboratory for testing. The second grant will fund the hiring of a temporary lab technician to assist with logging samples in, prepping them for outsourcing, tracking and receiving the results.

The State Patrol further states that their current CODIS analyst will perform required technical reviews of the results and entry into CODIS. While the State Patrol anticipates a backlog in the CODIS samples during the first year, they anticipate being able to keep up with new samples coming thereafter due to the implementation of a new type of collection and testing kit and procedures that simplify and speed the testing process for databank samples.

NSP Crime Laboratory Statistics

According to the information collected in the Patrol's current LIMS program, the following are case-related statistics for 2007, 2008, and 2009:

Year	Total cases submitted to sections	Total assignments made to sections
2007	3800	4162
2008	3896	4179
2009	4061	4383

One case submitted to a section for testing may result in a number of assignments to that section due to the fact that one case may involve a number of submissions of evidence and additional testing requests, resulting in a number of reports being issued. In addition, one case may entail submission to more than one section of the lab, if multiple types of tests are needed.

In 2009, the NSP Crime Laboratory served approximately 166 different agencies, including: 74 city police departments; 65 county sheriff offices; State Patrol; State Probation; numerous correctional facilities; drug task forces; State Fire Marshal; other state agencies such as, Motor Vehicles, Health and Human Services, Games and Parks; federal agencies such as, Offutt AFB, US Army, ATF, U.S. Forest Service; and university campus police departments.

Other Crime Labs in Nebraska

As noted earlier in this paper, the University of Nebraska Medical Center has an accredited crime lab. Additionally, both the Douglas County Sheriff's Office and the Omaha Police Department have crime labs. Douglas County has been exploring relocating its crime lab into the former Thomas Fitzgerald Veterans Home and merging with the crime lab of the Omaha Police Department (Omaha World-Herald, Wednesday April 28, 2010).