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Mr. Chuck Broerman El Paso County Clerk and Recorder 1675 W. Garden of the Gods Rd Colorado Springs, CO 80901-2007 (719) 575-8689

July 25, 2022

VIA: USPS CERTIFIED MAIL & EMAIL: elections@elpasoco.com

Dear Clerk and Recorder Broerman,

I, as a certified candidate for the Republican primary race for Governor held on June 28, 2022, respectfully and formally request that the El Paso County bipartisan audit board conduct a Comparison Risk Limited Audit (RLA) for the *certified* June 28, 2022, Primary election results using the statistically proven method outlined in Mark Lindeman and Philip B. Stark, A Gentle Introduction to Risk-limiting Audits, IEEE Security and Privacy, Special Issue on Electronic Voting, (Mar. 16, 2012) (PDF) which is formally endorsed and adopted by the Colorado Secretary of State, Jena Griswold.

The RLA System software program, utilized by the Election Division of the Colorado Secretary of State's office, does not check outcomes by comparing hand counts to voting systems counts for the randomly selected group of audited ballots to assess whether the subtotals are sufficiently accurate to determine who won (please refer to "RATIONAL" below).

This prevents the El Paso County bipartisan audit board from fulfilling its responsibility to demonstrate with indisputable statistical assurance that the election outcomes are correct presenting numerous questions concerning its ability to fulfill the statutory requirement.

The Comparison RLA can be accomplished within 48 hours with minimal cost, by using a statistically proven method of comparing voting system counts for groups of ballots audited against the outcome of hand counts for the same audited groups of ballots, which the current RLA procedure does not include.

The number of ballot cards to audit will represent a margin of error (risk limit) of 3% with a confidence level of 97%, population Proportion of 50% and the population size of the Total Ballot Cards in Manifest

Total Ballots in El Paso County

150,157 = 1,297 ballots

Final El Paso County Election Audit Report / Total Ballots Audited:

571 ballots / 150,157 (includes D ballots) = 0.0038

The number of ballots audited in El Paso County fails to comply with the acceptable statistical standards to provide strong evidence and confidence to the El Paso County bipartisan board to verify that the reported winner really won.

My sole purpose in submitting this notarized letter and making this formal request is to seek your public support in restoring confidence to many Colorado voters in the *certified* June 28, 2022, Primary election results. It is not my intention to alter the official results of June 28, 2022, but to verify the accuracy of the comparison RLA through the prescribed process of Lindeman and Stark.

Greg Lopez

Certified Candidate for the Office of Colorado Governor

State of Colorado

County of

2022.

Notary Public

Signature

Printed Name

My Commission Expires:

[Affix Notarial Seal Here]

THUYANN KIM NGUYEN NOTARY PUBLIC STATE OF COLORADO NOTARY ID 20204004765 IY COMMISSION EXPIRES 02/03/2024

## **RATIONAL**

**CRS Title 1 – Elections** does not prohibit, prevents, or makes any reference to any cost that must be paid by the interested party (a certified candidate) in requesting that a hand count risk-limiting comparison audit be conducted that specifically "checks outcomes by comparing hand counts to voting system counts for (groups) of ballots"

As the designated election official, you are required to conduct a risk-limiting audit in accordance with section 12-7-515, C.R.S. and Colorado Secretary of State Election Rules [8 CCR 1505-1] Rule 25. Post-election audit.

25.2 Risk limiting audit. The designated election official must conduct a risk-limiting audit in accordance with section 1-7-515, C.R.S. and this rule. 25.2.1 RLA methods

(a) Counties that use a voting system capable of exporting CVRs must conduct a comparison audit.

"Colorado takes numerous measures before and during statewide elections to secure the voting process as well as "conducts bipartisan post-election audits to ensure election outcomes are accurate."

CRS § 1-7-515 (1) (a) The general assembly hereby finds, determines, and declares that the auditing of election results is necessary to ensure effective election administration and public confidence in the election process. Further, risk-limiting audits provide a more effective manner of conducting audits than traditional audit methods in that risk-limiting audit methods typically require only limited resources for election races with wide margins of victory while investing greater resources in close races.

"Risk-limiting audits" RLA provide statistical assurance that election outcomes are correct by manually examining portions of the audit trail—paper ballots or voter-verifiable paper records" <sup>2</sup> the assigned bipartisan county audit board members rely exclusively on the results of the RLAs to officially verify that the reported winner really won.

"In Colorado, all counties participate in conducting COMPARISON AUDITS - RLAs."

The "Comparison audit" as explained in "A Gentle Introduction to Risk Limiting Audits" authors Mark Lindeman and Philip B. Stark - The sole purpose of a comparison RLA is to provide statistical assurance that election outcomes are correct <u>by comparing hand counts to voting system counts</u> to verify that the reported winner really won.

COMPARISON AUDITS – RLA: Comparison audits check outcomes <u>by comparing hand counts to voting system counts</u> for clusters of ballots.

Comparison audits can be thought of as having two phases:

- (i) Check whether the reported subtotals for every cluster of ballots sum to the contest totals for every candidate. If they do not, the reported results are inconsistent; the audit cannot proceed.
- (ii) <u>Spot-check the voting system subtotals against hand counts for randomly selected clusters</u>, to assess whether the subtotals are sufficiently accurate to determine who won. If not, the audit has a large chance of requiring a full hand count.

Rule 25. Post-election audit 25.1 Definitions. As used in this rule, unless stated otherwise:

- 25.1.4 "Comparison audit" means a type of risk-limiting audit in which the audit board examines and reports to the Secretary of State voter markings on randomly selected ballot cards, then compares them to the voting system's tabulation as reflected in the corresponding cast vote records.<sup>3</sup>
- b) Audits are conducted by bipartisan election judges. The audit is conducted by a bipartisan team of election judges in each county, known as the audit board. . . . Then, the audit board reviews each audited ballot and enters the votes they observe into the RLA System/Tool. After the audit board finishes auditing all the selected ballots, the program compares how the judges recorded the voters' choices from the paper ballot compared to the tabulation as reflected in the county's cast vote record. . . If the risk limit is never satisfied, a full hand count would be conducted. This has never occurred.

The RLA System/Tool software program allows the bipartisan audit board to simply conduct a visual confirmation that the voting system recorded the ballot markings correctly, which some argue is the same as doing a hand count, but it neglects to do any tabulation of the audited ballots as no report is generated to confirm the results of the audited ballots.

The bipartisan audit board is informed that this type of visual confirmation of the voter markings on the randomly selected ballot cards is all that is necessary because the RLA System/Tool software is designed to compare them to the voting system's tabulation as reflected in the corresponding cast vote records. There is no evidence to support that conclusion.

The most efficient ballot-level audits, comparison audits (explained below), require the voting system interpretation of every ballot—which no federally certified vote tabulation system reports. (See Stark and Wagner [2012].)

The RLA System/Tool software program <u>does not provide</u> the bipartisan audit board with a printed report specific to the paper ballots audited showing the number of votes and the percentage of vote received by each candidate in any given contested races on the group of ballots audited.

Without a system generated report similar to the report that is generated by the voting system utilized during election night confirming the voter markings on the selected group of audit ballot has been compared to how the voting system allocated every audit ballot to each candidate as reflected in the county corresponding cast vote records one is left with serious doubts to the validity of the Risk-limiting audit and the election outcomes which in turn impacts the official certification of the election results.

Secretary of State rule; 25.2.2 Preparing for the audit

(k) Number of ballot cards to audit. The Secretary of State will determine the number of ballot cards to audit to satisfy the risk limit for the target contests based on the ballot manifests submitted by the counties.

The rule prohibits the designated election official – County Clerk & Recorder - from independently determining and selecting the paper ballots to be audited to satisfy the risk limit to targeted contests.

It makes no reference to prohibiting a County Clerk & Recorder - from independently determining and selecting the paper ballots to be audited to satisfy the 3% risk limit pertaining to a hand count county comparison RLA.

I respectfully request that the selected paper ballots for the hand count county comparison RLA be solely and independently selected by the designated election official – County Clerk & Recorder with limited guidance or involvement of the Secretary of State's office.

The hand count county comparison RLA is to be based on the total number of paper ballots casted for the Republican Primary ballot only.

It is not to include the Democrat Primary paper ballots. This is a deviation from the prior RLA as the prior RLA included the total votes casted in the entire primary election to include both Republican and Democrat ballots to determine the number of ballots to audit.

The number of ballot cards to audit will represent a risk limit of 3% with a confidence level of 97%, population Proportion of 50% and the population size of the Total Ballot Cards in Manifest

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Final El Paso Audit Report

Total Ballots Audited

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Note:

The County Clerks & Recorders for the following counties will be receiving the same letter: Adams / Arapahoe / Boulder / Denver / Douglas / El Paso / Jefferson / Larimer / Mesa / Pueblo / Weld

## **List of Resources:**

Colorado Secretary of State:

Risk-Limiting Audit (RLA) FAQs Post-Election Audits Overview Rule 25. Post-election audit Risk-Limiting Audit Resources

A Gentle Introduction to Risk-limiting Audits, IEEE Security and Privacy, Special Issue on Electronic Voting, (Mar. 16, 2012) (PDF), Mark Lindeman and Philip B. Stark,

American Statistical Association Statement on Risk-Limiting Post-Elections Audits, 4/17/10

BRAVO: Ballot-polling Risk-limiting Audits to Verify Outcomes, Mark Lindeman, Philip B. Stark, Vincent S. Yates; Department of Statistics University of California, Berkley.

<u>Risk-Limiting Post-Election Audits: Why and How; Risk-Limiting Audits Working Group, October 2012</u> (version 1.1)

Machine -Assisted Election Auditing, Joseph A. Calandrino, J. Alex Halderman, and Edward W. Felton

Evidence Based Elections, P.B. Stark and D.A. Wagner

County Run Book - Colorado Risk Limiting Audit Tool v1.o.o alpha 2 - 2017; FREE & FAIR