Proposal for rules related to definition of "full hand count" for purposes of Colorado RLA and integration with existing statutory recount.

[A very large number of ballots may be required to be audited if the reported margin is small. If the margin for a given contest is small, some counties may, and at some stage probably will, deem it more efficient to perform a complete hand count rather than manually inspect randomly sampled ballots. Each county may have a different threshold of preference for substituting the hand count so this is left to each county's discretion. A full hand count may correct errors in one county that otherwise would cause other counties to do more work in auditing contests that cross county lines.]

Possible language for a SOS rule (background comments are enclosed in [brackets]):

A county may substitute a "full hand count" in place of the RLA for one or more specific audited contests at any time after the minimum required number of ballots have been sampled and audited. A "full hand count" may also be required by the SOS in some circumstances.

A full hand count may be implemented by means at the discretion of the county but must adhere to the following requirements:

1) The detection of voter intent for the contest under active audit shall be done by human cognition of marks directly from each original voter-verifiable paper ballot containing the contest (not from a screen or other form of digital image or a copied, reprinted or remade ballot). Order of ballots in a batch and batch numbering/separation need not be maintained once the transition to a full hand count is committed to by informing the SOS.

2) Votes on ballots must be directly interpreted by humans and may additionally be manually sorted with respect to voter intent. Quantification of captured votes or sorted stacks may be implemented with COTS hardware and software that is not certified for use in CO, if the method is approved by the SOS. For any such use, after human interpretation, at least two separate instances of aggregation using separate devices/methods (optionally a hand page count) must agree prior to use of those counts for certified results.

3) A SOS certified voting system, whether or not used for the original count, may be and is encouraged to be used to quantify numbers of pages of ballots in stacks manually sorted by contest choice. Machine-produced page counts may be used to produce certifiable results of a full hand count under the following conditions:

   A) Voter intent expressed on audited contests by visibly light markings or voter intent outside the target area or otherwise deemed unlikely by the audit board to be correctly interpreted by the voting system will be kept at the top of the stack during the sorting process to expedite adjudication based on paper.

   B) The available scanners are randomly assigned to the stacks in a publicly verifiably random selection process; if insufficient scanners are available, the same scanner may be re-used to

tabulate another stack as long as the results are stored elsewhere and counters are set to zero before changing the category of stack to be tabulated.

C) Tabulation by the voting system is used to confirm that the hand sort by contest choice is correct. Scanners are set to tabulate only the audited contest. Any use of onscreen adjudication input shall only be in parallel and simultaneous with observation of the physical paper ballot to confirm the accuracy of the manual sort. As long as the manual sort is determined correct, adjudicators shall use voting system adjudication only to confirm the manual sort decision in the CVR produced.

D) If discrepancies are discovered through one or more incorrect reported contest choice counts in an otherwise uniform tabulation of a sorted stack by the voting system, they are remedied if necessary by human cross check and removal to the correct stack. After such corrections of the manual sort are made, a re-tabulation is performed of both the stack from which the ballot was removed and the stack into which it was placed. Stacks may be tabulated and reported in batches if hardware permits.

E) The stacks, as corrected, are assigned to scanners again, this time to different scanners by lot. Tabulation is repeated using a different random assignment of stacks to scanners and if any discrepancy is discovered between the two runs of any stack, the discrepancy is resolved prior to rescanning to confirm resolution of the discrepancy.

4)   Use of electric/electronic technology shall be limited to hand calculators, COTS software running on COTS hardware, page counting hardware, thickness measuring and weight measuring devices, and vote tabulation equipment that is certified and operated under the conditions described above.

[For example, physical paper ballots may be sorted by election judges working for the audit board into stacks by contest choice (candidate A, candidate B, candidate C, undervote, overvote, not in contest, uncertain requiring escalated adjudication). Poorly marked ballots that might not be machine adjudicated correctly will be kept on top of each stack.

After manual sorting, each stack may be counted at any point by hand. Alternatively and preferably additionally, each stack will be counted by a separate certified tabulator set to count only the desired contest and report the aggregated vote results on the sorted stack. If the hand sort is successful and the machine accurately detects the results of the hand sort, then all tabulations of each stack and in each tabulator will be found to be voted for the associated contest choice.

These results are examined to detect any ballots that show voter intent other than the specific choice that is expected. Discrepancies are corrected by moving any offending ballots into the correct stack followed by re-tabulation by machine. CVRs may be used to locate the precise ballots that are discrepant. Problematic ballots will be isolated in the beginning of each stack so corrections of machine adjudications inconsistent with the manual sort will occur on sequential ballots, making it much easier to observe sequential sheets of paper while correcting the machine adjudication. After discrepancies are

corrected by moving ballots from stack to stack, the batches containing added or subtracted ballots shall be rescanned and tabulated again.

Once the report from each tabulator/scanner is 100% consistent with a second tabulation on a separate scanner, the total counts of ballots in all pairs of agreeing tabulators become the certified election result for that contest choice and represent the result of the "full hand count."

Ballots are to be kept in sorted stacks by contest choice pending a possible recount, depending on the margin of the certified results. If the margin meets the recount threshold then a machine recount of the sorted stacks will take place after certification with different scanners (if available) used to tabulate each of the stacks one more time (until we change statute to eliminate the need for this no-longer-necessary mandatory additional machine recount).

The protocol would change if two or three contests were to be hand counted simultaneously. One solution is to sort each of the initially sorted stacks into similar sub-stacks for the second contest to be hand counted. This is probably preferable to re-sorting all ballots according to the second contest, thus losing the opportunity for a confirming re-tabulation of the sorted stacks of the first contest in a recount.]

Harvie Branscomb and John McCarthy 7/18/2017

A supportive suggestion for amendment to C.R.S.:

The Colorado form of ballot statute can be updated to serve lower cost of elections, voter privacy, ballot anonymity and audit efficiency. This is a proposal to consider a statutory change to support rules under current consideration.

In order to efficiently hand count ballots, as many contests as possible need to be situated geographically in an unchanging location on the ballot form regardless of style. County wide contests (including statewide) will preferably be placed in order in advance of contests that apply to only a portion of the styles within a county. Also candidate races for which there is always exactly one per each ballot such as Congressional, State House and Senate can be arranged to occupy the same space on all styles to maintain uniformity in position. To accomplish this the statutory text below should be amended as I have shown in yellow highlighted strikeout and CAPS.

In case of a two page ballot, there is also benefit to separating the precinct based districts onto one ballot and non-precinct based contests (Muni, School District, Special Districts) on another. If each page is considered a separate ballot and each represents a style and converts into a separate CVR, then far fewer ballot styles need be printed and this has many advantages. For example a page that contains only countywide contests will require only one style in a county (other than precinct coding).

The proposed amendment also removes the requirement that the clerk sign the ballot, a requirement that contradicts a separate requirement that a candidate name appear only once on the ballot.

And a message is added to require the voter to comply with the constitutional requirement not to mark the ballot in a manner such that who voted it can be identified. Also, instructions to the voter are provided to remedy marking errors such that human adjudication of the ballot will occur without self-exposure of voter identity.

Colorado C.R.S. 1-5-407. Form of ballots (relevant portions excerpted)

(1) (a) All ballots must be uniform and of sufficient length and width to allow for the names of candidates, officers, ballot issues, and ballot questions to be printed in clear, plain type, with a space between the different columns on the ballot. On each ballot the endorsement "Official ballot for ...." must be printed, and after the word "for" follows the designation of the precinct, if appropriate, and the political subdivision for which the ballot is prepared, the date of the election, and a facsimile of the DISTRICT SEAL ~~signature~~ of the election official. The ballot shall not contain any caption or other endorsement, except as provided in this section. The election official shall use the same quality and tint of paper, the same kind of type, and the same quality and tint of plain black ink for all ballots prepared for one election.

…

(5) (a) Whenever the approval of a ballot issue or ballot question is submitted to the vote of the people, the ballot issue or question FOR A DISTRICT shall be printed upon the ballot following the lists of candidates RUNNING IN THAT DISTRICT. CONTESTS APPLICABLE TO THE ELECTION SHALL BE PLACED IN THE FOLLOWING ORDER: PRESIDENTIAL CONTEST AND STATEWIDE, U.S. CONGRESSIONAL, STATE SENATE, STATE REPRESENTATIVE, JUDICIAL, COUNTYWIDE, COUNTY COMMISSIONER DISTRICT, SCHOOL DISTRICTS, MUNICIPAL DISTRICTS, AND SPECIAL DISTRICTS. IF POSSIBLE A DIFFERENT SIDE OR DIFFERENT PAGE WILL BE USED AFTER COUNTY COMMISSIONER DISTRICT AND BEFORE SCHOOL DISTRICTS. ~~Except as otherwise provided in section 32-9-119.3 (2), C.R.S.,~~ WITHIN EACH DISTRICT CATEGORY, referred amendments shall be printed first, followed by initiated amendments, referred propositions, AND initiated propositions.~~, county issues and questions, municipal issues and questions, school district issues and questions, ballot issues and questions for other political subdivisions which are in more than one county, and then ballot issues and questions for other political subdivisions which are wholly within a county.~~ TO THE EXTENT POSSIBLE CONTESTS WILL BE LOCATED IN THE SAME LOCATION ON EACH STYLE BALLOT.

…

(5.5) The coordinated election official may choose to follow the provisions of subsection (5) of this section, or may choose to use separate ballots. If separate ballots are used, TO THE EXTENT POSSIBLE ALL CONTESTS IN DISTRICTS ALIGNED WITH PRECINCT BORDERS SHALL BE PLACED ON THE FIRST BALLOT AND CONTESTS FOR DISTRICTS NOT ALIGNED WITH PRECINCTS SHALL BE PLACED ON A DIFFERENT BALLOT. CONTESTS APPLICABLE TO THE ELECTION SHALL BE PLACED ON THE FIRST BALLOT IN THE FOLLOWING ORDER: PRESIDENTIAL CONTEST AND STATEWIDE, U.S. CONGRESSIONAL, STATE SENATE, STATE REPRESENTATIVE, JUDICIAL, COUNTYWIDE, AND COUNTY COMMISSIONER DISTRICT; AND THE FOLLOWING DISTRICT CATEGORIES SHALL BE PLACED STARTING ON THE SECOND PAGE IN THIS ORDER: SCHOOL DISTRICTS, MUNICIPAL DISTRICTS, THEN SPECIAL DISTRICTS. DISTRICTS THAT ENCOMPASS AT

==LEAST THE ENTIRE COUNTY SHALL BE PLACED FIRST. WITHIN EACH DISTRICT CATEGORY,== the candidates shall be listed first, followed by measures to increase taxes, measures to increase debt, citizen petitions, and referred measures.

…

(7) No printing or distinguishing marks shall be on the ballot except as specifically provided in this code. ==THE FOLLOWING MESSAGE SHALL BE PRINTED ON THE BALLOT: "IF YOU MAKE A MISTAKE IN MARKING, OBTAIN A REPLACEMENT BALLOT OR CLEARLY WRITE YOUR INTENTION IN TEXT AND MARK THROUGH ALL CHOICES ON THE AFFECTED CONTEST. DO NOT WRITE YOUR NAME OR INITIALS ON THIS BALLOT."==

C.R.S. 32-9-119.3. Elections for sales tax rate increase

ARTICLE 9. REGIONAL TRANSPORTATION DISTRICT ACT

…

(2) A ballot question submitted pursuant to subsection (1) of this section shall be submitted at a general election or an election held on the first Tuesday of November in an odd-numbered year that is conducted in accordance with the "Uniform Election Code of 1992", articles 1 to 13 of title 1, C.R.S. The secretary of state shall determine the identifying numbering or lettering of such a ballot question., ~~and the question shall be printed upon the ballot immediately following any statewide amendments and propositions.~~

Harvie Branscomb

7/18/2017