Rule 10.10.6

If this rule is adopted as written, we would appreciate additional guidance from the Secretary's office ("the state") on how to calculate the "minimum number of votes that would have to be different to change the elimination order such that the winner in the final round of tabulation would be different." Namely, if two candidates are within 0.5% in the first round of tabulation, are counties expected to calculate potential impact on the final round of tabulation based on actual 2[nd,] 3rd, 4th ranks in the CVR, or a hypothetical set of rankings that would change the outcome?

An example of the latter is attached as an addendum to these comments. In the first scenario, each round's eliminated votes are transferred to the next-lowest candidate. In the second scenario all eliminated votes are transferred to the top candidate. The potential impact on the final round of tabulation can be demonstrated if we make assumptions about vote patterns; the work becomes much more difficult if actual rankings must be accounted for.

Additionally, it would be helpful to clarify if the math is applied to the first round of IRV or to every elimination round as well. If every round, does the "one-half of one percent of the votes cast in the contest" apply to the total submitted votes in the first round of the contest or only the continued (non-exhausted) ballots in each next round?

If counties are responsible for these calculations, we would appreciate a tool like the Recount Calculator pdf hosted on the state's "Clerk's Corner" website. We understand that the state has worked closely with statisticians to develop IRV capability in CORLA, so we hope that a similar tool or algorithm will be made available to help us determine necessary recounts.

Rule 11.3.3

Rule 11.3.3 as proposed adds a considerable amount of complexity to an already complicated process. The need to test the system proposed in 21.12 is clear, but the process provided by 11.3.3 creates several challenges for implementation.

11.3.3(b) requires a runoff tabulation entity ("controlling county") to provide an additional test deck of 25 ballots to other coordinating counties and cites Rule 11.3.2(c), but it's unclear what specific requirements in 11.3.2(c) must be met; we presume 11.3.2(c)**(2)** is the most relevant reference. Additionally, it is not possible for counties to scan one another's ballots as required by 11.3.3(c).

Our experience conducting LAT for ranked contests for the 2025 Coordinated Election demonstrates how complex this process already is for a single county. We used our voting system's Automated Test Deck module to generate 'complete rotation' and 'first position' test decks to satisfy the various requirements of 11.3.2(c) including representation of every precinct style, overvotes, skipped rankings, and so on. This system does not prevent ties in the first round of an IRV contest so we produced additional ballots to satisfy 11.3.2(c)(2)(C). The system also only produces 'results' for the first round of any IRV contest, so we had to manually create a CVR for each IRV contest, tally each elimination round, and transfer votes to generate our anticipated results prior to scanning and tabulating the test deck in our voting system.

Requiring a controlling county to generate, hand tally, and distribute a wholly new test deck (or at very least, marking pattern) imposes a significant additional burden on that county. Instead, because each county in a multi-jurisdictional ranked contest is already conducting its own independent LAT, it makes more sense to have each county submit its LAT CVR to a central system that can aggregate and process the whole contest's IRV data (see comments on Rules 21.12, 26.8, and 26.9 below for more on this concept).

Rules 21.12, 26.8, and 26.9

We do not believe conducting the elimination stages of multi-jurisdictional IRV contests should be the responsibility of the controlling county.

We are wary of opening up voting systems to ingest and compile CVRs from external sources. Notwithstanding the security provisions in 20.5.3(c) and elsewhere, the controlling county would be required to download a series of data files and import them into voting system software. We are concerned about issues such as how the system would handle corrupted data files, duplicate filenames, and version control (i.e. would inputting a new CVR overwrite existing data?).

21.12.2(b) states users of the proposed tool must be able to "standardize the names of contests and choices across jurisdictions"; the name of a contest and its choices should already be uniform when the election is created in SCORE, so we wonder how much additional work the state expects the controlling county will need to do to align results within the proposed system.

There are several other additional responsibilities in these rules that would add significant responsibility to the controlling county.

26.8.1 and 26.9.4 require participating counties to transmit new results "at least once on election night and once each day where ballots are being tabulated thereafter", which opens the possibility that while the controlling county is finished tabulating on election night, they are still required to receive, hash, import, and process another county's results for several days afterwards.

26.9.2 requires the controlling county to redact the CVR for every precinct in all counties involved. This is an already time-intensive and complex task for a county's own precincts. It would be a considerable amount of additional work to analyze and process another county's precinct-level data.

26.9.3 requires the controlling county to report IRV results if the election night reporting software is unable to. In practice, proposed rule 26.9.3 would have participating County B post to their site "To see results for Municipality C, please visit the website of County A". Each county's results posting process (and format) varies, and redirecting voters from County B to County A may create additional layers of confusion as voters accustomed to one county's results posting attempt to navigate to another's. Furthermore, while counties must meet the same deadlines for publishing results on election night, those results are often published at slightly different times. County B may redirect voters to County A before County A has published results.

To reduce voter confusion (and redirects), each county should be responsible for tabulating its own ballots and generating relevant data files that can then be aggregated at a higher level.

We believe the state is much better positioned to conduct the elimination stages of multi-county IRV contests. First, aggregating and tallying results is already done for cross-county and statewide contests in plurality contests in ENR. Although ENR does not currently support results reporting for IRV contests, the need for this support becomes even more critical with the addition of multi-county IRV aggregation.

Meanwhile, the state has done tremendous work in developing tools such as CORLA to be able to ingest and process IRV contest data, as demonstrated in our most recent Risk Limiting Audit for the 2025 Coordinated Election, which covered 3 IRV contests. Taking this work into consideration, we would suggest that the state, by

way of ENR (or another third-party platform), is in the best position to aggregate, conduct elimination stages, and present results for multi-county IRV contests. This also sets a foundation for any future changes in law that may require implementation of a statewide IRV contest, for which the state would be the controlling authority.

Rule 26.5.5

Establishing a ranked voting elimination order in advance of the 2025 Coordinated Election, including and especially our Logic and Accuracy Test, was very beneficial to our processes and we strongly support this proposed rule.

Rule 26.5.5 as currently written stipulates that "if two or more candidates tie … the eliminated candidate must be chosen by lot". Choosing a winner by lot often takes the form of a single coin flip or blind draw. However, when the LAT Testing Board compares its hand tally to the voting system's tabulated results (Rules 11.3.2(c) and (d)), reconducting the lot drawing could produce different outcomes and therefore major discrepancies between test deck results.

Likewise, the voting system must retabulate each time Election night results are generated. Without an established elimination order, breaking ties could produce vastly different outcomes which could negatively impact voter confidence in the system.

For the 2025 Coordinated Election we worked closely with our municipality to establish the elimination order by lot drawing. From our experience, a few points of clarity are worth considering to improve the proposed rule:

1. Clarify that the "designated election official" is not the coordinating election official or clerk but rather the entity certifying election content (in much the same way they already certify the order in which their candidates should be placed on the ballot).

2. The proposed rule stipulates that the designated election official is responsible for creating the elimination order "before any logic and accuracy test". It would be helpful to establish a more precise time frame for this, particularly when multiple counties are relying on it for their LATs being conducted on different dates. We suggest setting the deadline for E-60; DEOs are already responsible for certifying final ballot order and content at that time, so this would greatly simplify communication between coordinating entities and minimize the number of different deadlines in the coordination process.

3. Specify – or require the DEO to specify – exactly what the elimination order means in practice. If Candidate A (elimination order 3) ties with Candidate B (elimination order 6), is the higher or lower number eliminated? It seemed obvious to everyone at the time, until we discovered about half the office naturally assumed it one way and the rest the other.

4. Clarify that this elimination order shall take the place of the tiebreaker currently required by 1-11-102, C.R.S. when "any two or more candidates tie for the highest number of votes for the same office."

Contact:

Michele Mihulka, Elections Director

970-498-7932

michele.mihulka@larimer.gov

Scenario 1: Each round's eliminated candidate transfers all their votes to the next-lowest candidate.

	Round 1		Result	Round 2		Result	Round 3		Result	Round 4		Result	Round 5		Result
Candidate A	20000	40.0%		20000	40.0%		20000	40.0%		20000	40.0%		20000	40.0%	
Candidate B	15000	30.0%		15000	30.0%		15000	30.0%		15000	30.0%		30000	60.0%	Winner
Candidate C	7000	14.0%		7000	14.0%		7000	14.0%	Send to D						
Candidate D	4200	8.4%		4200	8.4%		8000	16.0%		15000	30.0%	Send to B			
Candidate E	2000	4.0%		3800	7.6%	Send to D									
Candidate F	1800	3.6%	Send to E												
Total Ballots Cast	50000	100.0%		50000	100.0%		50000	100.0%		50000	100.0%		50000	100.0%	
1/2 of 1%	250			250			250			250			250		

Scenario 2: Each round's eliminated candidate sends all their votes to the top candidate.

	Round 1		Result	Round 2		Result	Round 3		Result	Round 4		Result
Candidate A	20000	40.0%		21800	43.6%		23800	47.6%		28000	56.0%	Winner
Candidate B	15000	30.0%		15000	30.0%		15000	30.0%		15000	30.0%	
Candidate C	7000	14.0%		7000	14.0%		7000	14.0%		7000	14.0%	
Candidate D	4200	8.4%		4200	8.4%		4200	8.4%	Send to A			
Candidate E	2000	4.0%		2000	4.0%	Send to A						
Candidate F	1800	3.6%	Send to A									
Total Ballots Cast	50000	100.0%		50000	100.0%		50000	100.0%		50000	100.0%	
1/2 of 1%	250			250			250			250		

Above is an example of how we might compute the impact of a margin of less than 0.5% on the final round's outcome, testing hypothetical marking patterns to determine if elimination order would change.

1. Identify any margins less than 0.5%.
    a. In this hypothetical 50,000 ballot contest, that value is 250. In Round 1 Candidates E and F are 200 votes apart.

2. Create models of marking patterns that could "change elimination order such that the winner in the final round of tabulation would be different."
    a. In the first scenario, all eliminated candidate's votes are transferred to the next-lowest candidate in the next round. In the second scenario all votes are transferred to the top candidate. No ballots are exhausted in any round.
    b. The elimination order in round 3 is changed; Candidate B wins in scenario 1 and Candidate A wins in scenario 2.

3. This contest would require recount.

We are interpreting the phrase "votes that would have to be different" as written in proposed rule 10.10.6 to mean "differently marked in round 1," but to calculate the downstream impacts we need to determine how *else* those ballots were ranked. Here we make those assumptions for ease of math. Alternatively, if we used the actual CVR to imagine those 200 ballots being voted differently, we would a) need to decide which 200 we were sampling and b) the spreadsheet math would be incredibly more complex. Additional guidance would be necessary.