

# VoteWell.net

Camarillo, California

August 5, 2021

Dr. Shirley N. Weber  
California Secretary of State

Dear Secretary Weber:

Audits are crucial to protect the votes of the largest state in the country from errors and attacks. Changes are suggested in the attached by striking out ~~some wording~~ and underlining new wording.

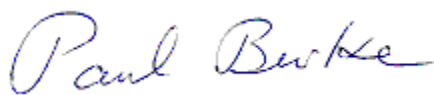
These comments overlap substantially with comments from Citizens' Oversight Projects. The most important issues are:

1. **Minimize time when sampled ballots can be altered**, and minimize public burden, by doing these public steps in this order, at one meeting where the ballots are stored: (a) give CVRs or batch totals to observers, if not previously released, (b) publicly select sample seed and sample records, (c) immediately bring forth sampled batches and ballots and examine seals, (d) interpret sampled ballots onto paper, (e) provide copies to observers, (f) compare audit board interpretations to the batch totals or CVRs given in (a).
2. The **second phase** must use a new random sample for the additional rows on the manifest, since continuing the previous sample makes it predictable, not random.
3. RLA software tool running **online is vulnerable**. It must be practical for election officials and observers to check it for a decent period before the audit, and run it on their own computers.
4. A central aspect of RLAs is **comparison of human interpretations** to machine interpretations. The rule needs to make the human interpretations public, as the rule already requires for the machine interpretations. A statement (in 20119) about CVRs refers to ELEC 2194(a), which does not concern CVRs, so we deleted it.
5. **Public notice** solely by social media or paper signs is not enough. We changed the rule from one method to all of a slightly shorter list of methods.
6. Counties creating **codes of conduct**, without limitation, creates disparities between counties and can limit effective observation, such as by telling observers not to run the RLA tool on their own computers. The counties should create a joint code.
7. Observers directly **questioning audit boards** cause delay. The rule must require another official be assigned to answer questions, obtaining them from the audit boards only if necessary.
8. When discrepancies are found, the rule needs to call for **investigating** whether the CVR was created wrong, or the paper ballot may have been altered during storage, by someone whose entry was not detected by the chain of custody. When ballot and CVR disagree, if the ballot image matches the paper ballot, the CVR is wrong. If the ballot image matches the CVR, investigation needs to determine if they were both created wrong (possible, but I know of no instance), or the paper ballot has been altered surreptitiously (which has often happened across the US). Both are hard to investigate.

9. The audits happen at a very late date in the election process, to test if electronic records match the paper ballots. By contrast, early in the process, experiments and rules need to provide **quality control for scanning**, to test if electronic records match the paper ballots at this early stage. While scanning, officials need to compare samples of ballots to scanned files (CVRs or images), before the ballots go into storage. Differences can be found immediately and solved by re-scanning. Some checking may already happen. Checking a good sample shows that CVRs and images are accurate to begin with. Digital signatures identify whether these electronic files remain unaltered. The verified electronic files can then be independently re-tallied at any time to check election results, dependent on the quality control sample size. The early checking protects results from any damage to stored paper ballots.
10. **Regulations for the 1% manual tally** are urgently needed, under ELEC 15360(c). This tally, in all counties, protects our elections from errors and attacks. As in the RLA rule, batch totals must be released before sample selection. Then, samples need to be publicly chosen by seed or 10-sided dice (as in 20120 below). The sample selection needs to happen where ballots are stored, so it can be followed immediately by bringing out and tallying the batches. Observers need to be able to see voters' marks (as in 20124) and get copies of tally sheets (as in 20123).
11. **All ballots must be covered by the 1% tally.** This goal means amending ELEC 15360(a)(1)(A) to add a second phase, auditing 1% of batches which were not included in the semifinal official canvass. We invite problems when we leave a third of our votes unaudited. In the March 2020 primary, 2,755,950 of 8,274,755 votes went unaudited.
12. **100% counts** must have the option of proceeding by batch, not precinct as required in 20121, 20122 and ELEC 15290.
13. **Posting county audit reports online** needs to be resumed, as done by Secretaries of State through 2010. [sos.ca.gov/elections/ovsta/frequently-requested-information/county-1-manual-tally-reports](http://sos.ca.gov/elections/ovsta/frequently-requested-information/county-1-manual-tally-reports)

I write from my experience as a poll worker in California and West Virginia, and an election supervisor in Bosnia for the Organization for Security and Cooperation in Europe. My career was in administering large and varied national and local samples at HUD, and I have been a statistical consultant for the UN Development Program. I have published peer-reviewed research on ballot security, [http://rbsekurity.com/JPS%20Archives/JPS%2011\(1\).pdf](http://rbsekurity.com/JPS%20Archives/JPS%2011(1).pdf) The goals of these comments are to deter, detect and recover from errors and attacks, with the minimum, effective, practical regulations.

**Thank you for your work improving California's elections.**



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Comment period to 8/5/2021: <https://www.sos.ca.gov/administration/regulations/proposed-regulations>  
Notice: <https://admin.cdn.sos.ca.gov/regulations/proposed/elections/audits/risk-limiting-audit-notice.pdf>  
Proposed rules: <https://admin.cdn.sos.ca.gov/regulations/proposed/elections/audits/risk-limiting-audit-text.pdf>  
Previous, non-emergency rules: <https://www.sos.ca.gov/administration/regulations/current-regulations/elections/risk-limiting-audits>

**Proposed Regulatory Action, Emergency Action: Risk Limiting Audits, Proposed Regulation Text  
Changes to Permanent Regulations**

**Title 2. Administration Division 7. Secretary of State Chapter 2. Risk Limiting Audits**

**20110. General Provisions.**

- (a) The purpose of this chapter is to establish guidelines and procedures for an elections official to conduct a risk-limiting audit in accordance with the requirements of Division 15, Chapter 4, Article 5.5 of the Elections Code.
- (b) Pursuant to Elections Code section 15367(a)(1), commencing with the statewide ~~primary general~~ election held on ~~March 3~~ November 3, 2020, the elections official conducting an election may conduct a risk-limiting audit ~~in place of the one percent manual tally required by Elections Code section 15360~~ during the official canvass of any election.
- (c) A participating county may exclude any contest that has been subject to a risk-limiting audit from the one-percent manual tally required by Section 15360.

*Note: Authority cited: Section 12172.5, Government Code; Section 15367, Elections Code. Reference: Sections 15150, 15360 and 15367, Elections Code.*

**20111. Definitions.**

As used in this Chapter, the following terms have the following meanings:

- (a) "Ballot" shall have the meaning set forth in Elections Code section 15366(a). A validly cast ballot is any ballot that is eligible to be counted in the canvass of an election, as specified in Division 15, Chapters 2 through 4 of the Elections Code.
- (b) "Ballot card" means a card upon which is printed, or identified by reference to the ballot, the names of candidates for nomination or election to one or more offices or the ballot titles of one or more measures. A ballot may be comprised of multiple ballot cards.
- (c) "Ballot-level comparison audit" shall have the meaning set forth in Elections Code section 15366(b).
- (d) ~~"Ballot-manifest"~~ means a detailed description of how the ballots are stored and organized, listing the unique physical location of each and every ballot card cast in the election in such a way that individual ballot cards or batches of ballot cards can be found, retrieved, and examined manually.
- (e) "Ballot-polling audit" shall have the meaning set forth in Elections Code section 15366(c). California Secretary of State – Proposed Regulatory Action Risk Limiting Audits – Proposed Regulation Text (Changes to Permanent Regulations) Page 1 of 6
- (f) "Batch comparison audit" means a type of risk-limiting audit in which elections officials examine voter markings on randomly selected batches of ballots seeking strong evidence that the reported tabulation outcome is correct.
- (g) "Cast vote record" shall have the meaning set forth in Elections Code section 15366(d). The cast vote record shall be generated by the voting system.
- ~~(g) "Cross jurisdictional contest" shall have the meaning set forth in Elections Code section 15366(e)~~
- ~~(h) "Elections official" shall have the meaning set forth in Elections Code section 320.~~
- ~~(i) "Electoral outcome" shall have the meaning set forth in Elections Code section 15366(f)(e).~~
- ~~(j) "Partial risk limiting audit" or "partial RLA" shall have the meaning set forth in Elections Code section 15366(g).~~
- (j) "Hybrid audit" means a combination of multiple risk-limiting audit types.
- (k) "Public notice" means the release of information to the public through all one or more of the following readily available communication channels: a website update, a social media post, an email list mailing including at least those requesting it, a press release, and a notice posted at an election office open to the public.
- (l) "Random seed" means a number consisting of at least 20 digits that is used to generate a random number sequence to select ballot cards or batches for audit.
- (m) "Risk-limiting audit" or "RLA" shall have the meaning set forth in Elections Code section 15366~~(h)~~(f).
- (n) "Risk-limiting audit software tool" or "RLA software tool" means software that can perform any of the audit types described in Section 20112 and which the election official can install on a local computer to avoid internet vulnerabilities. Pursuant to Elections Code section 15367(b)(2)(E), the algorithms and source code of the RLA software tool shall be disclosed to the public. The SOS shall ~~affect~~ effect this disclosure by posting the source code, or a link to the source code hosted on another publicly available website, on its website. Software must be posted 2 months before each election, for the public to verify, and not change unless a corrected version is posted a month

before the election. One option must be in a common spreadsheet format with the calculations visible, not hidden. Counties may elect to use hand tally sheets and a conventional spreadsheet that can be easily shared with the public in lieu of using any custom-made RLA software tool.

(o) "Voting system" shall have the meaning set forth in Elections Code section 362.

*Note: Authority cited: Section 12172.5, Government Code; Section 15367, Elections Code. Reference: Sections 320, 362, 15302, and 15366, Elections Code.*

#### **20112. Audit Types.**

~~The elections official shall use an RLA software tool provided by the Secretary of State to perform one of the following:~~

- (a) A ballot-level comparison audit, with a five percent risk limit.
- (b) A ballot polling audit, with a five percent risk limit.
- (c) A batch comparison audit, with a five percent risk limit.
- (d) A hybrid audit, combining two or more of the audit types in subdivisions (a) through (c), with a five percent risk limit.

*Note: Authority cited: Section 12172.5, Government Code; Section 15367, Elections Code.*

#### **20113. Audit Initiation.**

- a) If the audit commences after all validly cast ballot(s) within the jurisdiction have been tabulated, the audit shall be conducted in a single phase as described in section 20121.
- b) If the audit commences before all validly cast ballot(s) within the jurisdiction have been tabulated, it shall be conducted in two phases as described in section 20122.

*Note: Authority cited: Section 12172.5, Government Code; Section 15367, Elections Code.*

#### **20114. Contests to be Audited.**

~~The election official who elects to conduct an RLA in accordance with the requirements of Division 15, Chapter 4, Article 5.5 of the Elections Code shall do so on each contest fully contained within its jurisdiction's borders, and a partial RLA on each cross-jurisdictional contest partially contained within its jurisdiction's borders.~~

Participating counties shall conduct a risk-limiting audit on one or more contests fully contained within the county's borders.

*Note: Authority cited: Section 12172.5, Government Code; Section 15367, Elections Code. Reference: Section 15150, Elections Code.*

#### **20115. Audit Board Selection.**

(a) The elections official shall appoint an audit board(s) to perform the duties specified in section 20123 that meets the following criteria:

1. Audit boards shall consist of no fewer than three members. At all times, at least one member shall serve as an observer of the audit and may not make determinations of voter choices. At least two members, excluding the observer, shall make determinations of voter choices for each ballot card examined by the audit board. Audit board members may rotate roles.
  2. ~~Audit board members shall be comprised of election office full-time or temporary staff, volunteers or a combination of staff and volunteers, persons who are not full-time staff and not involved in the canvass, and therefore will be more independent.~~
  3. The two members examining each ballot card may not have been registered in the same political party in the past two years.
  4. Prior to conducting the audit, each member of an audit board shall complete and sign a declaration of intent to faithfully discharge audit board duties. Each audit board member shall do so in the presence of the elections official on a form provided by the elections official. The elections official shall countersign the declaration. The declaration shall be in the following form:  
*[form omitted]*
  5. No fewer than two members of the audit board will be in possession of ballot cards at any time, including during the ballot card retrieval process.
- (b) If the elections official appoints multiple audit boards, only one audit board shall evaluate each ballot card.

Note: Authority cited: Section 12172.5, Government Code; Section 15367, Elections Code.

**20116. Public Education on Risk-Limiting Audits.**

- a) Prior to conducting an RLA, the elections official shall provide public notice that includes descriptions of how the process will be conducted, the difference between 1% manual tally and an RLA, and the methods for ensuring ballot security. The elections official shall also provide information regarding the process for selection of their audit boards and procedures used to ascertain voter intent manually.
- b) The Secretary of State shall make the same materials described in (a) above available on its website.

*Note: Authority cited: Section 12172.5, Government Code; Section 15367, Elections Code.*

**20117. ~~Ballot~~ Manifest and Ballot Handling.**

- a) The elections official shall maintain an accurate ~~ballot~~ manifest, created independent of the voting system. The ~~ballot~~ manifest shall uniquely identify the storage container in which each validly cast ballot card or batch is stored after tabulation. The manifest shall be additionally linked to records in the Cast Vote Record (CVR), such that if a ballot id or batch number in the CVR exists, it can be used either directly or indirectly, to locate the ballot or batch in the storage containers.
- b) For ballot-level comparison RLA audits: The format for the ~~ballot~~ manifest shall be in the format required by the RLA software tool in the California Post-Election Risk-Limiting Audit Ballot Manifest Format document dated October 15, 2019, which is hereby incorporated by reference, which the Secretary of State shall post on its website. If a batch-comparison audit is used, then the manifest may be batch-to-box conversion sheets that should be scanned and posted online publicly.
- c) If the audit commences after all validly cast ballot(s) have been tabulated, the elections official shall create only one ~~ballot~~ manifest.
- d) If the audit commences before all validly cast ballot(s) have been tabulated, the elections official shall create two ~~ballot~~ manifests, one before each phase of the audit: an initial ~~ballot~~ manifest that includes all ballots that have been tabulated before the first phase of the audit starts, followed by the final ~~ballot~~ manifest including all tabulated ballots.
- e) The content of the initial ~~ballot~~ manifest shall not be changed in the final manifest; accordingly, no ballots shall be added to the containers included in the initial manifest. Instead, the tabulated ballots that are not included in the initial ~~ballot~~ manifest shall be stored in new containers, and the final ~~ballot~~ manifest shall include all the rows in the initial ~~ballot~~ manifest plus a row for each new container. Example: 1,000,000 ballots were cast in the county, of which 900,000 had been tabulated when the elections official decided to start the first phase of a two-phase audit. The initial ~~ballot~~ manifest includes those 900,000 ballots. Ultimately, 97,000 of the remaining 100,000 ballots are determined to be validly cast. These ballots are tabulated and are stored in new containers. The final ~~ballot~~ manifest consists of the initial ~~ballot~~ manifest plus additional rows that describe the new containers in which these 97,000 ballots are stored, for a total count of 997,000 ballots in the ~~ballot~~ manifest for the second audit phase.

*Note: Authority cited: Section 12172.5, Government Code; Section 15367, Elections Code.*

**20118. Chain of Custody.**

- a) The elections official shall maintain and document an uninterrupted chain of custody for each ballot card, each batch, and each ballot storage container. Chain of custody logs should, at a minimum, include an identifying number of each ballot storage container and the number of a tamper-evident seal affixed to each ballot storage container in such a way that the container cannot be opened without breaking the seal. Chain of custody logs shall be available for public inspection after the canvass of the election pursuant to Division 15, Chapters 2 through 4, of the Elections Code is complete.
- b) The chain of custody logs must be kept securely, so they cannot be altered by anyone with access to stored containers.
- c) The elections official shall secure and maintain in sealed ballot containers all tabulated ballots.
- d) The elections official shall establish written procedures to ensure the security, confidentiality, and integrity of any ballots, cast vote records, or any other data collected, stored, or otherwise used pursuant to this section. These procedures shall be published on its website at least five days in advance of the audit.

*Note: Authority cited: Section 12172.5, Government Code; Section 15367, Elections Code.*

**20119. Data Publication Prior to Audit.**

- a) When the elections official submits data to the RLA software tool or spreadsheet before an audit phase begins they shall also publish the same data on their website before continuing with the audit. The elections official shall also publish any changes made to such data.
- ~~b) Subject to Elections Code section 2194(a), cast vote record data shall not be posted to the elections official's website, but shall be made available to the public at the location where the audit is being conducted.~~

*Note: Authority cited: Section 12172.5, Government Code; Section 15367, Elections Code. Reference: Section 2194, Elections Code.*

**20120. Random Seed.**

- a) The random seed shall be generated in order by sequential rolls of one or more fair 10-sided dice.
- b) The random seed shall be generated in a the public meeting where the audit happens, as follows:
  - 1. The elections official shall give at least ten five-days public notice of this public meeting.
  - 2. The elections official shall randomly select members of the public who attend the meeting to take turns rolling a die, and designate one or more staff members to take turns rolling a die.
  - 3. In the event that no members of the public attend the meeting, the elections official can designate someone or themselves to roll the die.
- c) After the random seed is generated, the elections official shall provide public notice of the random seed.
- d) The random seed shall be entered into the RLA software tool as provided in sections 20121(d) and 20122(e).
- e) 10 sided dice may be used to directly select the random ballots or batches to be audited. Each color of the die shall be designated for a given decimal position, ones, tens, hundreds, thousands. The batch manifest shall be sequentially numbered, from 1 to n, where n is the total number of ballots or batches. Separate rolls of the dice shall select each ballot or batch to be audited. This method is also recommended for the 1% manual tally random selection per Elections Code 15360.

*Note: Authority cited: Section 12172.5, Government Code; Section 15367, Elections Code.*

**20121. Audit Procedures for Single-Phase Audit.**

- (a) ~~The elections official conducting an RLA audit board, after all ballots cast within the jurisdiction have been tabulated and reported shall, far enough before the audit to resolve any inconsistencies, compare with or without the tool: enter the following information into the RLA software tool:~~
  - (1) The number of ballot cards on the ballot-manifest for all ballot card(s);
  - (2) The total number of ballot cards represented in the CVRs;
  - (3) The results for all ballot card(s) tabulated; ~~and~~
  - (4) ~~If a For ballot-level comparison audits or hybrid audits with a ballot-level comparison audit component is being conducted, the contest totals of cast vote records for all ballot card tabulated; and~~
  - (5) For batch comparison audits or hybrid audits with a batch comparison audit component is being conducted, vote totals from each contest being audited for each batch, or cast vote records for all ballot cards tabulated including a field that specifies the batch of that ballot, such that the CVR records can be subtotaled for each batch.
- (b) If the ~~comparison RLA software tool~~ identifies any inconsistencies in the information entered under subdivision (a), the elections official shall resolve the inconsistencies before the audit proceeds. (c) ~~After the data have been submitted under subdivisions (a) and (b),~~ At the time and place announced for the public audit, the elections official shall generate a random seed or samples pursuant to section 20120.
- (d) The elections official shall enter the random seed into the RLA software tool. The RLA software tool will randomly generate a list of particular ballot card(s) or batches of ballot card(s) from the ~~ballot~~-manifest to examine manually.
- (e) The elections official may at any point decide to conduct a full manual tally of any contest(s) whose outcomes have not yet been confirmed by the RLA. In the event that the elections official conducts a full manual tally, the RLA of that contest shall be suspended. Such a manual tally shall follow the procedure specified in Elections Code section 15290.

*Note: Authority cited: Section 12172.5, Government Code; Section 15367, Elections Code. Reference: Section 15290, Elections Code.*

**20122. Audit Procedures for Two-Phase Audit.**

- (a) An elections official conducting a two phase audit under subdivision (d) of section 20117 shall do so in accordance with this section.
- (b) In the first phase of the audit, the ~~elections official conducting an RLA audit board shall, far enough before the audit to resolve any inconsistencies, compare with or without the tool: enter the following information into the RLA software tool:~~
- (1) The number of ballot cards on the initial ballot-manifest for all ballot card(s) tabulated as described in subdivision (d) of section 20117;
  - (2) The total number of ballot cards represented in the CVRs;
  - (3) The results for all ballot card(s) tabulated that are included in the initial ballot manifest;
  - (4) If a For ballot-level comparison audits or hybrid audits with a ballot-level comparison audit component is being conducted, the contest totals of cast vote records for all ballot card tabulated that are included in the initial ballot manifest;
  - (5) If a batch comparison audit or a hybrid audit with a batch comparison audit component is being conducted, vote totals from each contest being audited for each batch; and
  - (6) The maximum number of ballot cards to be tabulated.
- (c) If the ~~comparison RLA software tool~~ identifies any inconsistencies in the information entered under subdivision (b), the elections official shall resolve the inconsistencies before the audit proceeds.
- (d) After the data have been submitted under subdivisions (a) and (b), at the time and place announced for the public audit, the elections official shall generate the first random seed pursuant to section 20120.
- (e) The elections official shall enter the first random seed into the RLA software tool. The RLA software tool will randomly generate a list of particular ballot card(s) or batches of ballot card(s) from the ~~ballot~~ manifest to examine manually.
- (f) In the second phase of the audit, the ~~elections official conducting an RLA audit board shall, far enough before the audit to resolve any inconsistencies, compare with or without the tool: enter the following information into the RLA software tool:~~
- (1) The number of ballot cards on the final ballot-manifest for all ballot card(s) tabulated as described in subdivision (d) of section 20117;
  - (2) The total number of ballot cards represented in the CVRs;
  - (3) The results for all ballot card(s) tabulated that are included in the final ballot manifest; and
  - (4) If a For ballot-level comparison audits or hybrid audits with a ballot-level comparison audit component is being conducted, the contest totals of cast vote records for all ballot card tabulated, and
  - (5) If a batch comparison audit or a hybrid audit with a batch comparison audit component is being conducted, vote totals from each contest being audited for each batch;
- (g) If the ~~comparison RLA software tool~~ identifies any inconsistencies in the information entered under subdivision (f), the elections official shall resolve the inconsistencies before the audit proceeds.
- (h) After the data have been submitted under subdivisions (f) and (g), at the time and place announced for the second phase of the audit, the elections official shall generate the second random seed pursuant to section 20120.
- (i) The elections official shall enter the second random seed into the RLA software tool. The RLA software tool will identify whether the audit can stop or whether further auditing is required to meet the risk limit. If further auditing is required, the RLA software tool will randomly select additional particular ballot card(s) from the final ~~ballot~~ manifest to be examined manually.
- (j) The elections official may at any point decide to conduct a full manual tally of any contest(s) whose outcomes have not yet been confirmed by the RLA. In the event that the elections official conducts a full manual tally, the RLA of that contest shall be suspended. Such a manual tally shall follow the procedure specified in Elections Code section 15290.

*Note: Authority cited: Section 12172.5, Government Code; Section 15367, Elections Code. Reference: Section 15290, Elections Code.*

**20123. Ballot Retrieval and Manual Examination.**

- a) For batch-comparison audits, the sealed storage containers containing each batch shall be retrieved and moved to the auditing location without opening the containers or breaking any seals.
- b) For ballot-level audits: The audit board shall locate and retrieve, or observe the location of and retrieval by elections official or election staff of, each randomly selected ballot card from the appropriate storage container.
- c) The audit board shall verify that the seals on the appropriate storage containers are those recorded on the applicable chain of custody log.

- d) For batch-comparison audits: each batch shall be split approximately into separate tally sets of about 100 ballots each. Each tally set shall be tallied by a separate tally team using either the read-and-tally method or sort and stack method. If the read and tally method is used, a tally sheet shall be used that will not require totaling of counts.
- e) The audit board shall examine each randomly selected ballot card. If the selected ballot card was duplicated prior to tabulation, the audit board shall retrieve the original ballot card and report how the original (rather than the duplicate) was marked.
- f) The audit board shall interpret voter markings on ballot cards selected for audit in accordance with Elections Code section 15154. If the audit board members cannot unanimously agree on the voter's intent, they shall indicate their disagreement in the final report in section 20125. They shall then notify the elections official of the disagreement, who shall arbitrate the issue. The elections official may:
  - 1. Instruct the audit board members to replace the ballot card with another ballot card, selected at random, that contains the same contests as the previously selected ballot card;
  - 2. Instruct the audit board members to submit to the RLA software tool that no consensus can be reached on the voter choices; or
  - 3. Make a final determination of the voter markings and instruct the audit board to submit the voter markings or choices in all audited contests to the RLA software tool.
- g) The audit board shall record the voters' choices in every contest on every ballot card selected for audit. Those choices shall be entered into the RLA tool, if one is used, and in any case, written on a hand-tally sheet. Copies of the hand tally sheets shall be given to observers present and shall be scanned and posted to a public web site.
- h) A printout of batch totals or CVRs from the election, for the sampled ballots, shall be made, for visual comparison to the hand-tally sheets. In a batch comparison audit, tally sheets for parts of the batch will be summed before comparison to the printout.
- i) In ballot comparison and ballot polling audits, when human interpretation differs from machine interpretation, an investigation will look into it. If the ballot image agrees with the ballot, the CVR is wrong. If the ballot image agrees with the CVR, investigation needs to determine if they were both created wrong, or the paper ballot has been altered during storage, by someone whose entry was not detected by the chain of custody. Digital signatures from when the files were created will indicate if the files were altered.
- j) The audit shall continue until the risk limit is met for every contest being audited pursuant to section 20114. If the RLA software tool specifies that further auditing is required to meet the risk limit, it will randomly select additional ballot card(s) from the ~~ballot~~ manifest to be examined manually. The elections official shall retrieve those additional ballot card(s) as described in (a), examine those additional ballot card(s) as described in (b) and (c), and record the voters' choices as described in (d).
- k) If the elections official chooses to perform a full manual tally of one or more contests, the audits of those contests will be deemed to have met the risk limit and the results of the full manual tally shall be the official results for those contest(s).
- l) The RLA shall be completed no later than the canvass deadline, as specified by Section 15372 of the Elections Code.

*Note: Authority cited: Section 12172.5, Government Code; Section 15367, Elections Code. Reference: Sections 15154 and 15360, Elections Code.*

#### **20124. Public Observation and Verification of Audit.**

(a) The elections official shall ensure that the audit process is observable and verifiable to the public. The elections official shall:

- (1) Provide at least ~~ten~~ five-days public notice prior to the first phase of the RLA. This notice shall include the single time and place ~~when~~ of the random seed will be generated ~~on~~-described in section 20120 and ~~the date~~ the ballot cards will be retrieved and manually examined.
- (2) Describe in writing the process of manually examining ballot cards and the selection of the ballots to be used in the audit.
- (3) Provide observers with an oral and/or written explanation of the RLA process, a written code of conduct for observation, and any documentation they will need for informed and effective observation.
  - (A) The code of conduct for observation shall be determined by the counties jointly, or if they fail to do so, by the Secretary of State elections official. The code of conduct for observation shall explain the rights and responsibilities of observers, and shall permit video-recording and observers using their own computers.



(B) Documentation needed for informed and effective observation shall include but not be limited to any data the audit relies upon, including: ~~the ballot manifest and the cast vote records for ballot-level comparison audits.~~

(i) The manifest;

(ii) For ballot-level comparison audits or hybrid audits with a ballot-level comparison audit component, the cast vote records;

(iii) For batch comparison audits or hybrid audits with a batch comparison audit component, vote totals from each contest being audited for each batch.

(4) Disclose the methods used to select samples and to calculate the risk.

(5) Provide the public the opportunity to observe ballot cards being retrieved and examined during the audit.

(6) Provide the public the opportunity to observe the voters' marks on every audited ballot card during the audit.

(b) Observers can ask questions of a designated official present, who shall obtain answers from others present if s/he does not know them. ~~the audit board, as long as they do not interfere with the conduct of the audit procedures.~~

*Note: Authority cited: Section 12172.5, Government Code; Section 15367, Elections Code.*

### **20125. Certification of Contest Results and Reporting of Audit Results.**

(a) The elections official conducting an RLA shall report the results of the audit in the certification of the official canvass of the vote specified by Section 15372 of the Elections Code. The report shall contain the following:

(1) The type of RLA conducted (e.g. ballot comparison, ballot polling, batch comparison, or hybrid);

(2) The date and time the RLA commenced and finished, and the number of rounds of sampling;

(3) A list of contests audited, with final reported results for those contests and the final measured risk for each contest;

(4) A link to the website where the ~~ballot~~ manifest can be found;

(5) The random seed(s) the elections official generated for use with the RLA software tool, and when and how the random seed(s) was generated;

(6) The number of ballot card(s) examined for each contest under audit, noting whether a full manual tally was conducted. If the audit was conducted in stages or continued beyond the first sample, a description of how the sample was drawn and the number of ballot card(s) selected at each stage.

(7) Notes regarding any ballot card(s) for which the audit board could not determine the voter's intent, as described in subdivision (c) of section 20123;

(8) A link to the website where the list of the particular ballot card(s) examined can be found;

(9) For ballot-level comparison audits or hybrid audits with a ballot-level comparison audit component:

(A) The number of discrepancies between ballot card(s) and the cast vote record, and a description of each discrepancy; and

(B) A link to the website where the cast vote record file only for the ballot card(s) examined in the audit can be found;

(10) For batch comparison audits or hybrid audits with a batch comparison audit component, discrepancies between batches and batch totals;

(11) The person-hours required to prepare for the audit, and number of people involved; (12) The person-hours required to conduct the audit, and number of people involved; (13) The number of members of the public who observed the audit;

(14) Notes on anything unusual or problematic, or that would be useful to improve the process, or that might be of value to the Secretary of State or other elections officials; and

(15) An attestation from the elections official that the RLA was conducted in accordance with Title 2, Division 7, Chapter 2 of the California Code of Regulations.

(b) The certification of the official canvass of the vote shall be conducted in accordance with Section 15372 of the Elections Code.

(c) The Secretary of State shall publish any report under this section received from an elections official on its website no later than five days after the date it publishes the certification of the official canvass of the vote in accordance with Section 15372 of the Elections Code. This subdivision shall not prohibit the elections official from publishing the same report on its website.

*Note: Authority cited: Section 12172.5, Government Code; Section 15367, Elections Code.*

### **~~20126. Redaction of Personally Identifiable Voter Choices.~~**

~~No later than the third business day following the expiration of the deadline to request a recount under Elections Code sections 15620 or 15621, or the completion of any recount, whichever is later, an elections official who conducted an RLA shall review its cast vote records file that was published and redact from the public record, but not its own files, the voter choices corresponding to any ballot susceptible to being personally identified with an individual voter.~~

~~*Note: Authority cited: Section 12172.5 Government Code; Section 15367, Elections Code. Reference: Sections 15620, 15621 Elections Code.*~~

[ Options for election officials to avoid association of ballots with individuals include:

- i. English can be on the same ballot card with each of the less common languages and enough English-speakers can use these ballot cards so users of the less common language cannot be identified.
- ii. Ballot cards do not need to identify precinct, voting location or date or voting method (e.g. provisional or mail). Recounts are still possible, since ballot cards do identify the offices being elected.
- iii. Special districts which have different boundaries can be printed on separate cards which are scanned separately to avoid rare card styles.
- iv. Signatures violate ELEC 14287. Therefore, if present, they cannot be assumed to have been written by that voter, so they do not reveal the voter's choices. Signatures can also be redacted if desired. ]