



March 23, 2023

Via Email: ClerkoftheBoard@co.shasta.ca.us

8 pages total

The Honorable Kevin Crye
The Honorable Tim Garman
The Honorable Patrick Jones
The Honorable Chris Kelstrom
The Honorable Mary Rickert

Shasta County Board of Supervisors
1450 Court Street, Suite 308B
Redding, CA 96001-1673

Re: Follow-up re January 2023 vote to terminate County's voting system contract

Dear Supervisors Crye, Garman, Jones, Kelstrom and Rickert:

We are a group of nonprofit, nonpartisan, California-based organizations dedicated to ensuring that secure and accessible voting systems are available to all California voters. We sent you an initial letter on February 23, 2023, about your 3-2 vote on January 24, 2023, to end the County's contract with its then-current voting system vendor.

Since then, this issue, as well as what appeared to be the Board's direction to county elections officials, in a 3-2 vote, to explore the feasibility of moving exclusively to a hand-counting system for ballots, were the subjects of extensive discussion and public comment at the Board meeting on February 28, 2023. Based on all of these developments, we believe it is important for us to send you this follow-up letter.

You already have received input from a variety of sources, including us, your own county elections officials, staff of the California Secretary of State's office, and the California Attorney General's office (the latter on behalf of the Secretary of State's office), informing you of the importance of following state and federal laws governing how elections are run and also alerting you about how your actions jeopardize the County's compliance with these laws.

One purpose of this letter is to provide you with additional facts that we hope will clear up what appears to be confusion and gaps in understanding about the fundamentals of computerized voting systems and how they are used in election administration. Another purpose is to urge you and other County leaders to make concrete plans, as soon as possible, to ensure that your constituents and fellow voters continue to benefit from the security, accuracy, privacy, and accessibility that certified computerized voting systems provide.

Computerized Voting Systems

Election technology consists of parts that form a whole system. The parts serve different functions. The three functions that are the focus of this letter are (1) creating the ballot, (2) marking the ballot, and (3) counting the ballots. Before a computerized voting system can be certified for use in California, the parts are tested individually and as part of the whole system to ensure they all work together correctly.

Your 3-2 vote on January 24, 2023, to end the County's contract with its then-current voting system vendor without having another voting system in place means that the County has no contract for the election technology needed to conduct the March 2024 statewide presidential primary election or any special election(s) that may be called between now and then. Moreover, the time the County needs to be prepared for smooth and effective election administration in the coming year was shortened by the Board's failure to take action on February 28, 2023, on the agenda item that would have made a plan for contracting for a voting system.

The remainder of this letter provides more information about the functions that cannot be carried out well—or, in some cases, at all—without a computerized voting system.

Creating the Ballot

One function of computerized voting systems is to enable elections officials to create each ballot accurately and efficiently. Each county in California has multiple ballot styles¹ for each election. What is included on each voter's ballot varies depending on several factors, including the voter's precinct, political districts, and, in some cases, political party affiliation; this ensures that voters are able to vote only on the contests for which they are eligible to vote. Different ballot styles also are needed to enable elections officials to comply with requirements to provide ballots in different languages, in formats that are accessible to voters with disabilities, and with any required rotation of candidate names.²

Without a computerized voting system, county elections officials would have to figure out some other way to create all required ballot styles with the correct names and information for every contest and every ballot measure. They also would have to figure out how to manage the voluminous information that determines what appears and how it appears, as required by law, on each ballot, which currently is done using election technology called an election management system.

Marking the Ballot

Another important function of computerized voting systems is to provide voters with options for marking their ballots. These options meet a variety of needs.

- **Ballot-marking devices (BMDs):** Sometimes referred to as “accessible voting machines,” these devices are used for in-person voting at polling places. They may be used by any voter who wants or needs to use them. They have features that enable voters with temporary or permanent disabilities to exercise their right to vote privately and independently. “Privately and independently” means these devices enable them to vote without having to rely on another person to help them mark their ballot and without having to reveal how they are voting to anyone else, protecting their right to cast a secret ballot.

Here are some examples of the features of BMDs and how they are useful:

- **Touchscreen**
 - Voters who have difficulty seeing the ballot, including older voters who may not identify as disabled, can increase the text size, making it easier to read.
 - Voters who have difficulty distinguishing some colors and shades can change the color contrast on the ballot, making it easier to read.
 - Voters who cannot hold a writing implement to mark a paper ballot—for example, due to a broken hand, arthritis, a spinal cord injury, cerebral palsy, or a stroke—can navigate and mark their ballot electronically using a touchscreen.
- **Handheld controller:** Voters with visual impairments, including blindness, and/or manual dexterity impairments can navigate and mark their ballot electronically using a handheld controller. The handheld controller looks something like a video game controller, with large buttons that are different shapes and colors. It is an option in addition to the touchscreen.
- **Audio:** Voters who have difficulty seeing the ballot or who cannot see it at all can listen to an audio version of the ballot and follow the audio instructions to navigate and mark their ballot electronically.
- **Ports to connect assistive technology:** Sip-and-puff devices and paddle switches can be connected to BMDs to allow voters with limited mobility and dexterity—for example, due to quadriplegia—to navigate and mark their ballot electronically. These ports do not allow the machines to be connected to the internet.

The BMDs certified for use in California print the voter’s selections onto a paper ballot after the voter has had an opportunity to review the selections for accuracy visually and/or using the BMD’s audio feature. Voters’ selections are stored in these

machines only long enough for the paper ballot reflecting the selections to be printed; once each voter's voting session ends, no voter-selection data is retained in the machine.

- **Remote accessible vote-by-mail (RAVBM)**

As the name suggests, RAVBM provides a certified vote-by-mail option that is accessible to some voters who cannot vote privately and independently using a paper vote-by-mail ballot because of the nature of their disabilities. While RAVBM is available to all voters under California law, it is especially useful to voters who cannot see or have difficulty seeing the ballot and to voters who have manual dexterity impairments. In some ways, you can think of RAVBM as the vote-by-mail equivalent of the ballot-marking devices described above.

After signing up with their county elections officials to use the RAVBM system, voters can mark an electronic version of their ballot on their own device, such as a personal computer. Because they are using their own device, they also can use their own assistive technology to navigate and mark their ballot. A common example of such assistive technology is a screen-reader for a computer or other electronic device, which reads the ballot out loud to a person with a visual impairment, and, like the audio feature of a ballot-marking device, provides instructions for navigating the ballot.

Once a voter marks the ballot using the RAVBM system, the voter must print the ballot on paper and return the printed ballot to elections officials using the same return methods that apply to paper vote-by-mail ballots.

- **Options for military and overseas voters:** The RAVBM system also serves the needs of military and overseas voters by providing them with another way to receive and mark their ballots when paper vote-by-mail ballots might be slow to arrive through the mail system and/or they need the accessibility options described above.

Without a computerized voting system, none of the options described above would be available.

Counting the Ballots

The third function of computerized voting systems that we highlight in this letter is counting, or tabulation, of the ballots that have been cast. The certified election technology currently used in California scans the paper ballots and tallies voters' selections for each contest and measure, resulting in a complete and efficient count of all ballots cast by eligible voters. The accuracy of this computerized tabulation is checked by a hand-count of a percentage of randomly selected ballots, in a process that is open to public observation.³

Without a computerized voting system, it is unclear how the County can timely count the ballots cast in any election but a small special election. Hand-counting ballots requires sufficient multi-person teams of counters, sufficient resources to conduct the count (including facilities, tables, and funding to pay for staff, space, and supplies), and enough time to complete the count before the legal deadlines for post-election auditing and reporting the official results.

The time required for hand-counting makes it feasible for post-election audits of *a small percentage* of ballots but infeasible for counting *all* ballots in any jurisdiction that has more than a few thousand registered voters.⁴ Consider these two recent examples from Shasta County, which, according to the county elections website, currently has nearly 111,500 registered voters.

1. A February 2022 audit of 9,017 ballots containing *only two contests* took 19 staff a total of 264 hours (excluding time spent preparing for the audit), which averages out to 13.9 hours per staff member for *both* contests, or 6.9 hours per staff member *per contest*, for a hand-counted audit.⁵ The 9,017 ballots included in this audit comprise only about 8% of the total number of registered voters in the County.
2. A November 2022 audit of 5,535 ballot cards containing 50 contests took two teams of four people 8 days.⁶ The small sample of ballots included in this hand-count comprised only 8% of the nearly 69,000 ballots cast by Shasta County voters in the November 2022 election.⁷

It is unclear how Shasta County could hand-count all ballots in a timely manner for a statewide election in which a substantial portion of registered voters cast votes on a large number of ballot contests and measures.⁸ California ballots often have 20 or more contests.

Finally, we address what is actually happening in terms of hand-counting of ballots in several jurisdictions that have been mentioned in recent discussions about Shasta County's election planning.

- **Esmeralda County, Nevada:** In the June 2022 primary election, “two county commissioners and a few election workers spent more than seven hours hand-counting all 317 ballots.”⁹
- **Nye County, Nevada:** In the November 2022 general election, elections officials attempted to hand-count all ballots, starting with mailed ballots received prior to Election Day. In November 2022, Nye County had approximately 40,419 registered voters.¹⁰ Hand-counts were conducted in addition to a machine count, with the machine count's being used for the official results.¹¹ Using volunteers, the teams eventually were able to hand-count approximately 2,000 ballots per day, although the first day was significantly slower (900 ballots).¹²

- **Missouri:** Contrary to what was stated at the Board meeting on February 28, 2023, Missouri elections officials have not been hand-counting all ballots and are not implementing a plan to hand-count all ballots.¹³ Missouri elections officials, like California elections officials, do conduct a manual (i.e., hand) recount of a percentage of ballots.¹⁴

In addition, there seemed to be confusion at the Board meeting on February 28 about the meaning of a recently passed Missouri law phasing out the use of a specific type of voting equipment called a direct-recording electronic (DRE) vote-counting machine.¹⁵ DRE voting machines are essentially a piece of equipment that combines the functions of ballot-marking and ballot-tabulation in one machine, which may be why some speakers at the Board meeting were conflating ballot-marking with ballot-counting. As California Deputy Secretary of State Susan Lapsley explained at that meeting, California has not used DRE voting machines for years. Under this new law, Missouri voters will, like California voters, have the option to hand-mark a paper ballot or use an approved ballot-marking device.

- **France:** Some other countries hand-count ballots for their official tally.¹⁶ France is one such country. In France, the vote for president is conducted at one election,¹⁷ while legislative members are elected in a separate election held on a different date.¹⁸ It goes without saying that ballots containing only one selection make hand-counting vastly easier.

To be clear, we are *not* advocating that there be *no* hand-counting of ballots. Hand-counting plays an important role in post-election audits of computerized ballot tabulation. We simply are trying to correct misinformation that seems to be circulating in Shasta County's deliberations about computerized voting systems and proposals about hand-counting, as well as to emphasize the infeasibility of accurately hand-counting all Shasta County ballots in a timely manner for any election but a small special election.

Conclusion

We hope the facts we have presented in this letter assist you in making decisions about the County's voting system(s) that are in the best interest of all voters in Shasta County, including those who need a computerized voting system in order to exercise their right to vote privately and independently. As stated earlier in this letter, you must make concrete plans as soon as possible to ensure that the county's voters continue to benefit from the security, accuracy, privacy, and accessibility that certified computerized

voting systems provide. If you have any follow-up questions, we are again happy to make ourselves available to you.

Sincerely,

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cc: The Honorable Dr. Shirley Weber, California Secretary of State
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The Honorable Steve Glazer, Chair, California State Senate Elections Committee
The Honorable Isaac Bryan, Chair, California State Assembly Elections Committee
The Honorable Ryan Ronco, President, California Association of Clerks & Elections
Officials
The Honorable Cathy Darling Allen, Clerk Recorder/Registrar of Voters, Shasta
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¹ For a definition of “ballot style,” see the glossary provided by the U.S. Election Assistance Commission at https://www.eac.gov/glossary/b?title=&field_language_target_id%5B1126%5D=1126&page=1.

² For a brief explanation of California’s rotation laws, see the Orange County elections website at <https://ocvote.gov/newsclicks/california-ballot-rotations-101>.

³ To learn more about this process, see the California Secretary of State’s webpages about post-election audits, which are available at <https://www.sos.ca.gov/elections/post-election-audits>.

⁴ According to the Bipartisan Policy Center in its April 2022 explainer “How Ballot Tabulators Improve Elections,” “[o]nly a handful of small jurisdictions continue to rely on hand counts alone, given their complex, imprecise, and resource-intensive nature.” The explainer can be found at <https://bipartisanpolicy.org/explainer/how-ballot-tabulators-improve-elections/>.

⁵ The audit report can be found at <https://www.elections.co.shasta.ca.us/wp-content/uploads/2022/02/RLA-February.1.2022-SOS-Memo.pdf>.

⁶ The audit report can be found on page 8 of the “Statement of Vote” at <https://assets01.aws.connect.clarityelections.com/Assets/Connect/RootPublish/shasta-ca.connect.clarityelections.com/Election%20Results%202000-Present/2022/1108/Statement%20of%20Vote.pdf>.

⁷ It also is notable that the only variances between the hand-count and the computerized tally that were discovered in this audit both were caused by human error. For details, see the November 2022 audit report cited directly above.

⁸ For example, Shasta County’s official election results reflect that 58,362 county residents voted in the March 2020 statewide presidential primary election and 94,084 county residents voted in the November 2020 statewide presidential general election. Past election results can be found at <https://www.elections.co.shasta.ca.us/election-results/election-results/past-election-results/#PastElections>.

⁹ See the news coverage at <https://apnews.com/article/2022-midterm-elections-new-mexico-nevada-voting-presidential-652df50bc2b535d2303ddd4c5fda6ea5>.

¹⁰ See the Nevada Secretary of State’s voter registration statistics at <https://www.nvsos.gov/sos/home/showpublisheddocument/11164/63803152377570000>.

¹¹ See the news coverage at <https://news3lv.com/news/local/nye-county-clerk-tempers-hand-count-expectations-calls-it-a-test#>.

¹² See the news coverage at <https://www.nbcnews.com/politics/2022-election/nevada-officials-begin-unprecedented-hand-count-ballots-rcna54338> and <https://cwasvegas.com/news/beyond-the-podium/nye-county-ballot-hand-count-likely-wont-make-thursday-deadline-mark-kampf-southern-nevada-aclu-supreme-court-election-midterms-ballots>.

¹³ See, for example, the news coverage at https://www.thecentersquare.com/missouri/bill-to-hand-count-missouri-ballots-called-not-feasible-in-hearing/article_ae37e8b2-aba8-11ec-9b34-f72c18dd234a.html.

¹⁴ See, for example, the following Missouri regulations: <https://casetext.com/regulation/missouri-administrative-code/title-15-elected-officials/division-30-secretary-of-state/chapter-10-voting-machines-electronic/section-15-csr-30-10110-manual-recount>.

¹⁵ See Missouri House Bill 1878 at <https://www.democracydocket.com/wp-content/uploads/2022/06/1878.pdf>, as well as news coverage at https://www.komu.com/news/state/new-missouri-law-bans-use-of-electronic-voting-machines/article_3d3e64ea-f7c2-11ec-bebc-3f8019ad1c45.html.

¹⁶ See data from the International Institute for Democracy and Electoral Assistance (“Are Official Election Results Processed by an Electronic Tabulation System?”) at <https://www.idea.int/data-tools/question-view/747>.

¹⁷ See, for example, the analysis of ways in which U.S. and French elections are different at <https://www.politifact.com/article/2022/apr/13/why-france-reports-election-results-faster-us/>.

¹⁸ See the description under “Electoral system” at https://en.wikipedia.org/wiki/Elections_in_France#Electoral_system.