County of Santa Clara

Registrar of Voters

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To: Members, Charter Review Committee, City of Santa Clara

From: Matt Moreles, Assistant Registrar of Voters, County of Santa Clara
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Subject: Voting Methods in Santa Clara County

Voting Method Definitions

<u>At-Large</u>: All voters in a jurisdiction are able to select from all candidates, and a voter may make a number of selections equal to the number of open seats. This voting method is currently in use by many cities, school districts, and other local jurisdictions in Santa Clara County.

<u>By-District</u>: The jurisdiction is divided into districts, and voters in each district are allowed to make one selection from a list of candidates specific to that district. This voting method is currently used by the County Board of Supervisors, City of San Jose, Board of Education, Santa Clara Valley Water District, a growing number of school districts, and other local jurisdictions in Santa Clara County.

<u>Ranked Choice Voting</u>: Voters are able to rank candidates in order of preference. During tabulation, the candidate receiving the least first-choice votes is eliminated and their votes are re-allocated to the voters' second choices. This process continues until a candidate reaches the defined threshold for election (e.g., majority as opposed to a plurality).

<u>Cumulative Voting</u>: Similar to an at-large election in that all voters are able to select from all candidates; however, under cumulative voting, in a contest with multiple open seats, each voter can choose to allocate their selections to individual candidates or allocate multiple votes to a single candidate.

<u>Single Transferrable Vote</u>: Voters are able to rank candidates in order of preference, similar to ranked choice voting. During tabulation for a multi-seat contest, a candidate who attains a set threshold for election has their "excess" votes re-allocated proportional to their voters' second choices. This process continues until a number of candidates attaining the set vote threshold for election equals the number of open seats.

<u>Limited Voting</u>: Similar to an at-large election in that all voters are able to select from all candidates; however, under limited voting, each voter can only select one candidate when there are multiple open seats.

Voting System Technology

For purposes of this report, "voting system" is used to refer to the hardware and software used to cast and tabulate ballots and to report election results, as distinct from the "voting methods" described above.

The County of Santa Clara's current voting system, Sequoia WinEDS 3.1.012, supports both at-large and by-district elections natively. These contest types are the two most commonly in use by local jurisdictions in the county. They do not require any changes to hardware or software, nor do they require any administrative approval from the California Secretary of State.

The current Sequoia WinEDS 3.1.012 system does not support ranked choice voting; however, there is a software upgrade, WinEDS 4.0, which does support ranked choice voting. Upgrading to the new software version would require an administrative approval to be granted by the California Secretary of State, which could be a 6- to 18-month process. There are currently two California counties who are approved to use Sequoia WinEDS 4.0, San Francisco and Alameda, who have implemented ranked choice voting for some municipal contests.

The current Sequoia WinEDS 3.1.012 system does not natively support cumulative voting; however, a work-around may exist (see section below). The Sequoia WinEDS 4.0 upgrade also does not support cumulative voting natively. Cumulative voting is expected to be supported in next generation voting systems to be implemented in the County.

The current Sequoia WinEDS 3.1.012 does not support single-transferable vote. It will be supported in next generation voting systems.

The current Sequoia WinEDS 3.1.012 does support limited voting. These contests would be configured in the system as if they were single-seat contests.

Cumulative Voting Using Current Technology

The current Sequoia WinEDS 3.1.012 system does not natively support cumulative voting. However, a work-around currently in use by the County of Amarillo, Texas, could possibly be used to conduct cumulative voting. In this solution, each candidate's name would be repeated on the ballot for a number of instances equal to the number of seats open for that contest. For example, if there were 4 seats open on the Santa Clara City Council and 14 candidates running for those seats, each of the 14 candidates would be listed 4 times, creating 56 candidate voting targets plus 4 write-in spaces (see attachment).

The voting system would report an individual vote count for each instance of a candidate's name and is not capable of calculating a total vote count for each unique candidate. The Registrar of Voters would need to manually calculate the sum of all instances of a candidate's name to report a total vote count for each candidate. Therefore, the total vote count for candidates would not be published as part of the Registrar's normal online results reports. They would be published as a separate addendum to the statement of vote in a similar fashion to write-in votes.

This design does have the potential to create some voter confusion, especially in the first election implemented, and would likely need to be mitigated with an extensive voter education and outreach campaign. First, the appearance of each candidate's name multiple times may initially confuse some voters. Also, the cumulative voting contest printed in this manner will likely split across multiple columns on the ballot and could even need to split across multiple pages. In the November 2016 election, had the City of Santa Clara's 4 open council seats with 14 total candidates been presented in this fashion, the contest would have split across three columns on one card side and onto a fourth column on a second page due to its size. Multiple-column and multiple-card contests can have higher instances of over-voting due to voter confusion with the layout and not realizing the same contest had been continued.

Special instruction text can be placed on the ballot alongside the specific cumulative voting contest to attempt to mitigate these design issues; however, not all voters read and follow ballot instructions. This is evidenced by the significant number of ballots received by the Registrar's office where the voter has not marked their selections according to the instructions at the top of the ballot. Additional voter education efforts that would further mitigate these design issues would include an additional poll

worker at each polling place, instructional materials at the polls, a dedicated page in the County Voter Information Guide, an instructional insert included with vote by mail ballot packets, direct mailers to voters, and a public information campaign with paid advertising and in-person outreach events. If a jurisdiction were to request elections to be conducted in this manner, the County of Santa Clara would work with it to define the scope and extent of the education campaign, as it will entail costs to the implementing jurisdiction.

Finally, due to the size of the contests created by this cumulative voting work-around, it could potentially create a situation where the current voting system would have to be upgraded to the Sequoia WinEDS 4.0 software version. This is because the current Sequoia WinEDS 3.1.012 software version has a limit to the ballot size of four double-sided cards (eight pages if front and back are counted separately).

The actual November 2016 ballot was three cards (six pages front-and-back). This was historically the longest ballot in the County's history, but the ballot size has been steadily increasing every general election for years. Had the Santa Clara City Council contests been conducted as cumulative voting as described above, this would have pushed the ballot to a fourth card (seven pages). Should the ballot size continue to grow as more local jurisdictions join the even-year general elections, should the cumulative voting model attract more candidates to the city council contest, or should other jurisdictions also adopt this cumulative voting model, the Registrar would not be able to continue supporting this work-around without upgrading to the Sequoia WinEDS 4.0 software version.

The upgrade to Sequoia WinEDS 4.0 would require administrative approval by the California Secretary of State. Initial discussions with the Secretary of State's Office indicate that it is unclear whether such an administrative approval would be granted. This process could take 6- to 18-months and would entail testing as well as the development and approval of use procedures, an implementation plan, and conditional requirements for certification. There are currently two California counties who are approved to use Sequoia WinEDS 4.0, San Francisco and Alameda, both of whom needed to upgrade to enable ranked choice voting for municipal contests. The major difference between Santa Clara County and those jurisdictions is that Santa Clara currently uses a central count configuration for its voting system, in which all ballots, including those cast at the polls, must be returned to the Registrar's office and tallied centrally. Alameda and San Francisco both use precinct count scanners, which allow voters at the polls to feed their ballots directly into the scanner and receive a warning if they have over- or under-voted any contests. While precinct count scanners are not a technological requirement for either upgrading to Sequoia WinEDS 4.0 or using the

cumulative voting work-around, they may be required by the Secretary of State as a condition for administrative approval for the upgrade or implementation.

Therefore, the County is technologically capable of implementing the cumulative voting work-around using its current system and software, provided that the size of the resulting ballot does not exceed a total of four cards. The County's capability of implementing the work-around with a five-card ballot is not guaranteed at this time until the County implements a new voting system.

Legality

The Registrar of Voters does not provide legal advice. Therefore, the information contained within this report pertains only to the technical capabilities of the voting system and does not constitute advice as to the legality of the voting methods discussed, the process required for adopting them, or their compliance with the California Voting Rights Act or any other law.

Cost Factors

Some voting methods, such as ranked choice voting, cumulative voting, and single transferable vote, would likely increase printing and ballot layout costs for the implementing jurisdiction because of the increased ballot real estate.

As discussed above, some voting methods, such as ranked choice voting, cumulative voting, and single transferable vote, would likely require enhanced voter education efforts during the first few elections. This would also increase costs to the implementing jurisdiction.

As discussed above, some voting methods, such as ranked choice voting and cumulative voting, may require a software upgrade for the Sequoia WinEDS voting system and administrative approval by the Secretary of State. There may be additional costs to the implementing jurisdiction relating to installation and testing of the upgrade as well as any modifications or mitigation required by the State as conditions for approval. These cost factors would not be an issue once the County has procured and implemented a next generation voting system.

The County is not currently able to furnish accurate cost estimates for any of the above factors. However, as an order-of-magnitude estimate, a previous study undertaken by the Registrar of Voters in 2006 estimated the cost of implementing ranked choice voting to be over $800,000. Information obtained from the County of Alameda shows that the

actual cost for first-election implementation of ranked choice voting for the City of Oakland was $656,908.

Table. Voting Methods Summary

Election Type	Supported by Current Voting System	Software Upgrade to Current Voting System (with State approval)	Support by New Voting Systems (earliest 2020)	Cost Factors
At large	Yes	N/A	Yes	Cost savings to City vs by-seat model because of single contest
By district	Yes	N/A	Yes	Minimal change in cost to City vs by-seat model, cost savings to candidates for candidate statements due to smaller print runs
Ranked Choice	No	Yes	Yes	Increase in printing cost, increased voter education costs, potential costs for software upgrade
Cumulative	No native support, may be possible using work around (up to 4 ballot cards)	No native support, may be possible using work around (upgrade required for 5+ ballot cards)	Yes	Increase in printing cost, increased voter education costs, potential costs for software upgrade
Single Transferrable Vote	No	No	Yes	Increase in printing cost, increased voter education costs
Limited	Yes	N/A	Yes	Minimal change in cost vs by-seat model