King County

King County Citizens' Elections Oversight Committee

Review of the Executive's Proposal to Purchase Election Equipment and Software

July 2007

King County Citizens' Election Oversight Committee

Membership

Ellen Hansen, Chair, Registered Voter
Marilyn Knight, Vice Chair, League of Women Voters of Seattle
Evelyn Arnold, Auditor, Chelan County WA*
Timothy Borders, Registered Voter
AJ Culver, The Municipal League
Paul Guppy, The Washington Policy Center
Victor King, Organization of Chinese Americans
Sheryl Moss, Director, Certification and Training, Office of
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Michael Snyder, WA State Democratic Party
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Introduction

In Motion 12493, passed in April of this year, the Metropolitan King County Council asked the Citizens' Elections Oversight Committee (CEOC) to assist them in their evaluation of the Executive's proposal to purchase election equipment and software. In addition to providing for expert and peer reviews, the motion asked the CEOC "to review the Executive's proposal to purchase election equipment and software; and to solicit input from citizens on election security concerns."

The First Business Case: New Tabulation Equipment and Software

To fulfill the Council's charge, the committee – which earlier in the year had been invited by Elections staff to attend presentations and equipment demonstrations by the vendors under consideration – established two subcommittees: the Equipment and Systems subcommittee, chaired by AJ Culver, and the Public Outreach subcommittee, chaired by Marilyn Knight.

The Public Outreach subcommittee planned and organized an evening hearing that would give interested members of the public the opportunity to testify about their concerns. Approximately 50 people attended that May 14 hearing, which was broadcast live via the King County government cable television (CTV), repeated several times and then placed in the station's archives. In addition, the Oversight Committee solicited and received written comments from the public. [1]

The Equipment and Systems subcommittee met with relevant Elections managers to discuss the Vote-By-Mail (VBM) business case, ask questions about key elements of the proposed systems, and about the process used to develop the proposal. They shared their findings with CEOC members and outlined the inadequacies of the existing software and equipment and the risks and benefits of moving to the new software and equipment in time for the 2008 elections.

This report provides the Oversight Committee's recommendations about implementing the Executive's proposal and includes a summary of public testimony and comments received by the CEOC.

Over the last several weeks, CEOC members have concluded that King County Elections is already facing significant challenges over the next eighteen months.

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[1] See Outreach Results for a summary of public comments. A DVD of the hearing is enclosed for your review.

The department will be moving to its new quarters at the end of this year – a move that will place an added burden on a staff that is already stretched to the limit. New work flows will need to be established, procedures may need to be altered.

In addition, if King County moves to vote by mail in 2008, it will require staff involvement in developing and implementing an extensive public outreach effort to educate voters about all aspects of Vote-By-Mail, including the availability and hours of operation of regional voting centers and ballot drop-off locations.

Finally, 2008 is a presidential election year, which will increase voter registration activity and voter turnout. In addition, in even-numbered years, with precinct committee officers on the ballot, more ballot styles are required. This will add to the complexity of this election.

Given these challenges, and understanding the tight time-frame required to transition to a new system, the CEOC believes there are significant risks in implementing new software and equipment for the 2008 elections. We are impressed by the many potential benefits of upgrading our vote-counting technology, but are also wary of possible pitfalls.

The most serious issue is the present lack of required federal and state certification for the new system. Final certification – likely but not guaranteed – is not scheduled until late 2007.

The committee has not had a chance to discuss and reach consensus on the issue of image scanning and pre-processing ballots. Informal discussions have revealed that some members support image scanning and pre-processing, while others do not, but at this time, the CEOC is not prepared to make a formal recommendation on this issue.

CEOC Recommendation

> **The CEOC recommends that if King County moves to Vote-By-Mail (VBM) elections in 2008, it do so using the existing software and equipment, but with the modifications listed below.**

REALS Director Sherril Huff and her staff have been clear about the inadequacies of the existing hardware and software – inadequacies that led the Executive to request the new election software and equipment currently under review. While recognizing the shortcomings of the existing equipment, the CEOC nevertheless urges that the County continue to use the existing equipment and software in 2008, but only after serious study of the following options to overcome software and equipment challenges:

To overcome the 2-gigabyte limit of the existing system, the following options should be explored:

- The database should be divided in half, creating two databases the results from which can be added together to provide final results. This technique should be practiced in advance of the presidential primary election.

- Explore the feasibility of adding another array of tabulating equipment and server, essentially duplicating the current central count setup. This would significantly increase the County's ability to report results and meet certification deadlines.

- Add extra shifts to the tabulation area, so counting can continue uninterrupted.

This approach would give additional time for the software and equipment to be certified and for staff to undergo training both on the new system and on security, and for a comprehensive voter education program to be developed and implemented. It would also allow time for the new hardware and software to be installed in other jurisdictions to see what unanticipated complications will be discovered.

For all of these reasons, the Oversight Committee believes that the purchase, staff training, and implementation of new hardware and software just after a move to new facilities and just before a presidential election is the highest risk option.

The Second Business Case: Automated Signature Verification and Ballot Tracking

The Equipment subcommittee did not have a chance to fully study the equipment and software presented in the second base and present detailed information to the full committee. For this reason, the CEOC did not take a formal position on this business case, although there was some discussion of the issues involved.

Automatic Signature Verification

The second business case has some of the same difficulties as the first. Notably, the signature verification equipment has not been fully certified. While the CEOC recognizes the potential benefits of such equipment in saving staff resources and removing one of the bottlenecks of the VBM process, its efficacy has not been fully demonstrated. The CEOC has concerns about the potential for voter fraud and the possibility of disenfranchising some voters. In any case, it is important to make sure this system is fully tested and certified and to give the Secretary of State's Office time to set standards for automated signature verification.

Ballot Tracking

The CEOC applauds the County Council and the Executive for acting decisively on the issue of preserving secret ballots by prohibiting unique identifiers on ballots, while still allowing for tracking of ballot envelopes. However, at this time, the committee is not prepared to recommend purchasing the software presented in the second business case, although many committee members have seen how complicated and time consuming the current system is to track and reconcile ballot envelopes given the number of ballots cast.

Regarding public concerns over VBM, the County can, over time, assess how much more information voters want or need regarding their ballot, and what the cost-benefit relationship is.

CEOC Priorities for Elections Operations

Regardless of the voting method used, the Citizens' Elections Oversight Committee suggests the following priorities:

Consolidated Elections Facility

The Council, Executive and King County Elections all deserve credit for moving decisively forward on the establishment of a consolidated elections facility, which is critical for the upcoming 2008 elections.

Since the last presidential election year in 2004, the transfer of absentee ballot processing and other critical tasks to the Temporary Elections Annex (TEA) at Boeing Field has substantially improved accountability, efficiency and staff morale. The CEOC strongly believes the move to the new, custom-built election facility in Renton will build upon this progress and lead to further improvements.

The transition to the new, permanent King County Elections facility must be carefully planned and implemented so that King County is fully up to the challenge of conducting any kind of election, whether it's vote-by-mail or the current mixed system.

Election Security, Secrecy, Accuracy and Auditing

Security of the process, secrecy for the voter and accuracy of the results are fundamental to free and fair elections. Since 2004, the CEOC has observed significant, steady improvement in ballot processing, reconciliation and canvassing. We believe even more can and must be done to achieve best practices, prevent error or fraud, facilitate observation and transparency, and make sure every valid vote is properly counted.

The CEOC recommends that adequate staff, facilities and related resources be devoted to ballot reconciliation so that King County Elections can meet the challenges of the high-profile upcoming presidential and gubernatorial elections.

King County should also go beyond the minimum standard set by state law for auditing election results before final certification. A hand audit of one race only in just five batches of paper ballots out of thousands processed, is inadequate for a county as large as King. The CEOC recommends that the King County Canvassing Board authorize and require a statistically-valid hand-audit requirement for paper ballots – similar to the 4 percent audit requirement for votes cast via electronic ballot – for the 2008 elections.

Voter Services, Outreach and Education

The one million active King County registered voters demand and deserve a quality election system that serves their diverse needs. Providing this level of service, outreach and education is always difficult, and it's even more challenging in a presidential year.

King County Elections is doing more than ever before, but there is much left to achieve. Looking forward to 2008, the CEOC recommends King County Elections be given the planning, budgeting, staffing and other resources to provide positive, proactive voter assistance. Priorities should include:

- Educating voters on how to properly mark their ballots, which will reduce the need to duplicate ballots in order to correctly reflect voter intent;

- Providing services and outreach to disabled voters in order to comply with state and federal law;

- Providing quality voting materials and Chinese-language ballots; and

- Providing assistance to citizens who have problems with voter registration, ballots or other election issues on or before Election Day.

Outreach Results

The Citizens' Election Oversight Committee received many comments from individual citizens as well as through oral testimony at a public meeting held on the evening of May 14, 2007. This section of the report provides a brief summary of oral and written public comments by category. The full text of each written comment is included in this report at Appendix 1. A DVD of the public meeting is attached to this report.

Individual citizens provided comments in a variety of ways, usually electronically. Some comments were sent directly to Councilmembers, which were then forwarded to Council staff and to the CEOC. In other cases members of the public used the County's web site to make comments. Council staff also received comments directly, and numerous comments to Executive were copied to Council staff. These comments were also forwarded to the CEOC.

Overall Observation
It may be helpful to note in the beginning of this section of the report that not one person, at the public hearing and in the e-mail comments and letters, supported the Executive's proposal. One comment was made suggesting criteria that new equipment should meet and one comment suggesting procedures for handling scanned images.

The CEOC was pleased that the (now confirmed) director of REALS and her senior managers attended the entire public hearing. The following CEOC report includes a summary of public comments without judgment as to the accuracy of the statements. The unedited written comments are provided as Appendix 1, a companion.

The CEOC notes that the individuals who attended the public meeting and who made written comments may not be representative of the general public. Nevertheless they are individuals who appear to care very much about elections and have taken the time to follow events and do some research. The following comments were typical of comments made orally and through e-mails and letters.

New Tabulation Equipment
- Many individuals raised concerns that the equipment proposed by the Executive for purchase has not been certified or tested by recognized authorities such as the Elections Assistance Commission, or federal or state agencies, and that such certifications and testing may well not be possible in the timeframe required for implementation.

- The [former] California Secretary of State Kevin Shelley decertified Diebold equipment because of "fraudulent, despicable behavior by Diebold…If that's the kind of deceitful behavior they are going to engage in they can't do business in California."

- It is unclear how manual recounts will be conducted using a system where ballots are scanned and modified electronically, particularly when individual ballots are required to be interpreted for voter intent. To reiterate, it is not clear how the scanned results can or will be reconciled with a manual recount of paper ballots.

- Open-source software should be used for security as well as cost reasons.

- A rather technical seven page discussion of best practices for the management and use of scanned images, which is arguably neither for nor against the purchase of new equipment but describes options and precautions in case it is purchased.

- Scanning of ballots could provide an opportunity for a "sneak peek" at elections results which could allow candidates or supporters of ballot measures to undertake last-minute strategies to change the outcome of an election. This has reportedly happened in three states.

- State law may change to prohibit the modification of scanned images when recounts are required.

- There is a general lack of concern and commitment to reliable auditing requirements to help detect fraud or errors in ballot tabulation equipment.

- Proprietary software is not transparent.

- Unlike ATM software (banking cash machines) that use open-source software, elections software is proprietary.

- Slot machines are better regulated than voting machines.

- The non-partisan GAO [Government Accountability Office] has determined that "…some of [the] concerns about electronic voting machines have been realized and have caused problems with recent elections, resulting in the loss and miscount of votes."

- Speed of the count is not important, integrity and trust of the results are.

- Touchscreen voting, even with a paper-trail verification is not reliable. A recent study by MIT/Cal Tech shows that numerous sources of fraud exist. The study showed that voters caught none of 108 errors.

- Requests to delay the transition to vote-by-mail until 2009 due to a preference for poll voting.

Automated Signature Verification
Few comments were received on this subject, but those made were not supportive of using this technology.

Ballot Tracking
Many individuals were very clear about their feelings on this subject – they do not want unique identifying marks on ballots. No one expressed opposition to tracking ballot envelopes.

- Numerous concerns were expressed about placing unique marks on individual ballots that could compromise the secrecy of ballots.

- An individual involved in the San Juan County WA lawsuit to remove unique identifying marks from ballots expressed his opposition to these marks and his appreciation that the Council sought public comment before making a decision on the matter.