September 9, 2004

King County Records, Elections and Licensing Services Division
Dean Logan, Director
King County Administration Building
500 Fourth Avenue, Room 553
Seattle, WA 98104-2337

Dear Mr. Logan,

As you know, there is a rapidly growing concern in this country and throughout the world about the reliability of electronic vote-tabulating machines. This concern does not originate from a lack of confidence in election officials, nor from a mistrust of technology in general, but from the reports of experts who have analyzed the electronic voting systems currently available and found them to be flawed, insecure, and amateur in their design and development. In-depth analyses by countless software experts have also concluded that the unique requirements of voting systems, one of which is the secrecy of the ballot, add a technological challenge not found in most computerized systems.

The validity of these reports has been repeatedly confirmed in actual elections by an ever-increasing body of evidence of the systems' unreliability. The list of election problems Holly, Pam, and I gave to you when we met with Councilman Constantine describes only a fraction of the malfunctions and miscounts that have been reported across the country in counties using the same equipment King County is using.

So, I'm sure you can understand our dismay when we discovered that the votes cast in King County during the primary and general elections this year will be counted by new, hurriedly developed, unexamined software created by the vendor whose software has been the most severely criticized by experts. Leaders of other organizations, such as the Verified Voting Foundation founded by Professor David Dill of Stanford University, confirmed that our dismay was well-founded, not only because of the vendor's previous track-record, but also because of the conditions surrounding this installation, which add an unacceptably high risk of error and fraud.

In your letter you said, "with the exception of those functions and capabilities unique to Washington's new primary, the software installed in King County has been reviewed by an Independent Testing Authority (ITA)." If you had made this statement about a mechanical device, I would be reassured, but unfortunately the statement provides negative assurance about the reliability of a software product. Functional changes to a software program are never isolated from the rest of the software. They must interface with the previous functions, and it is often in that interaction that unforeseen problems arise. I have observed the truth of this many times during my 20 years of experience with software development.

In fact, during the primary election this week, Clark County, Nevada experienced the very problem that concerns us. A new feature was added to the previous version of the Sequoia software, and the Registrar of Voters is still working to resolve problems caused by an error they believe was introduced during the change. Incidentally, the revised software was even qualified by an ITA.

What this means is that your diligent efforts to conduct thorough controlled testing, while admirable, do not guarantee that the product will perform reliably during an election. As the report from a recent Harvard symposium on voting systems points out:
Testing is necessary but not sufficient for a well-run election. Testing is never perfect, as it can overlook certain factors or interactions that may be easier to detect in hindsight. Systems interact with each other in unpredictable ways, often impossible to detect in a reasonable battery of tests.\(^1\)

The report unequivocally states, "testing before the vote cannot verify accuracy of final tally," and declares, "Equipment testing does not displace the need for outcome auditing."

In your letter, you referenced limitations imposed on recounts by state law and said, "State law does not allow a county or an official to arbitrarily re-open ballot containers and conduct recounts outside of these parameters." The context of the recount law you reference suggests that its intent was to prevent political parties from capriciously demanding excessive recounts. Clearly, the recounts you are encouraging the political parties to request, which would check less than 0.0015% of the votes in the primary election, are not intended to audit the accuracy of the equipment.

It is difficult for me to believe that the legislature's goal was to limit the ability of an election director to perform the procedures necessary to ensure the accuracy of an election outcome. Surely the legislature did not intend to tie the hands of those whose duty it is to protect the integrity of our elections.

Unfortunately, our discussion has become bogged down in technical details and entangled with interpretations of legal verbiage and the meanings of words such as "recount" versus "audit," when the real point is about the spirit of democracy. The sole purpose of election administration is to ensure that the outcome of an election reflects the will of the people. So I ask you, if the election laws are intended to facilitate the democratic process, what recourse is open to you when the letter of the law is interpreted in a way that hinders that process?

At your request, Secretary of State Reed could write an emergency rule change to allow for a robust audit of the September primary. Otherwise, with only the pre-election and post-election testing, which experts declare cannot assure the accuracy of the outcome, how will any of us be confident that the software has performed correctly in the primary?

Since all the reasons you cite for the software revisions relate to the primary, it is clear that the previous software could be used to conduct the general election. Fortunately, you have the authority to make sure the unexamined software, whose reliability your Prosecuting Attorney says the law does not allow you to verify, is not used to count the votes cast in the November general election.

Sincerely,

Ellen Theisen
660 Jefferson Ave.
Port Ludlow, WA 98365

cc:  Hon. Julia Patterson, King County Council  Representative Eric Pettigrew
     Hon. Dow Constantine, , King County Council  Chairman Paul Berendt
     Paul Tanaka, County Administrative Office  Chairman Chris Vance
     Congressman Jim McDermott  Thomas T. Osinski Jr., Attorney at Law
     Representative Shay Schual-Berke

http://designforvalues.org/voting/ABPractices.pdf