FINAL RECOMMENDATIONS OF TECHNOLOGY AND AUDIT SUBCOMMITTEE

These recommendations are forward-looking and are based on the understanding and assumptions that they are technologically and fiscally feasible, including that there will be technology to cost-effectively produce paper ballots for all counties for early voting.

1. House Bill 1155 and other current requirements of Colorado law

After the Secretary of State's December 2007 decertification of the electronic voting systems (EVS) used by the vast majority of Colorado counties, Governor Bill Ritter signed into law House Bill 1155, emergency legislation which provided for retesting and interim recertification of any decertified voting machines. C.R.S. § 1-5-622. Voting systems certified pursuant to H.B. 1155 expire by its terms on July 1, 2009. C.R.S. § 1-5-622(4).

We agreed that the interim emergency certifications provided for in H.B. 1155 would be extended through the 2013 election cycle. The purpose of this extension is to provide financial relief to cash-strapped counties and to provide ample time to phase in the next generation of technology as provided in Recommendation 2 below.

In other words, currently certified EVS could continue to be used through the 2013 election cycle, subject to all conditions that attached to the 2007 and 2008 certifications of such EVS. *See* C.R.S. § 1-5-601 *et seq.*; Election Rule 45.

The interim certification provided by the extension of H.B. 1155 through the 2013 election cycle would expire after the 2013 election cycle. The bill extending H.B. 1155 would be clear that those EVS would be decertified after the 2013 election cycle, if those systems cannot meet then-applicable certification standards and could no longer be used.

The statutory requirement that all direct recording electronic (DRE) voting equipment have Voter-Verified Paper Audit Trails (VVPATs) by 2010 (C.R.S. § 1-5-802) will be repealed so that Jefferson and Arapahoe counties do not have to go through expensive short-term retrofits on DREs not currently equipped with VVPATs.

2. Paper ballot/optical scan-based EVS

For all elections after the 2013 election cycle (and for all new EVS purchased and utilized before the 2013 election cycle), all Colorado counties will be required to utilize a paper ballot/optical scan-based electronic voting system which has been certified in accordance with the revised certification procedures described in Recommendation 3 below.

Mark Baisley dissents from the requirement that after 2013, all counties will be required to utilize a paper ballot/optical scan-based system and votes "no" on that portion of the recommendation. Mark joins in all other aspects of the recommendation.

Paper ballot/optical scan-based EVS may include ballot marking devices. Paper ballot/optical scan-based EVS shall be tested and certified by the Colorado Secretary of State in accordance with the standards and procedures described in Recommendation 3 below.

If no alternative technology has been developed by 2013 to meet the federal Help America Vote Act (HAVA) requirements for voters with disabilities (*see* 42 U.S.C. § 15481(a)(3)), DREs may be used for that purpose, provided that they meet then-applicable state certification requirements.

3.   Certification of paper ballot/optical scan-based system and modification of EVS whose certifications have been extended pursuant to Recommendation 1 above.

All new EVS and all modifications of currently certified EVS will be required to be tested and certified by the Colorado Secretary of State in accordance with Colorado law and Election Rules as modified by this paragraph. *See* C.R.S. §§ 1-5-601 *et sec.*, § 1-5-704; Election Rules 34, 35, 45.

The current requirement promulgated by the Election Assistance Commission (EAC) that all EVS must be tested and certified as meeting current federal standards (*see* C.R.S. § 1-5-601.5) will be repealed. Those EVS whose certifications are extended through the 2012 general election under Recommendation 1 may be modified subject to testing and certification by the Colorado Secretary of State that such systems, as modified, meet all Colorado testing and certification requirements.

The current statutory requirements and regulatory requirements for certification shall remain in effect, except that the requirement that testing and certification be completed in 90 days, (*see* C.R.S. § 1-5-617(1)(c)), is amended to provide that testing and certification be completed in 180 days.

The Colorado Secretary of State may utilize and rely on testing done by another state's Secretary of State or chief election official, or by a federally-certified testing lab, provided that the Colorado Secretary of State has complete access to all test documentation, test data and test reports. Furthermore, the Colorado Secretary of State must make written findings and certify: (1) that he or she has reviewed the test documentation, data and reports and finds that the testing has been conducted in accordance with state-of-the-art engineering standards and practices; and (2) that the testing met each applicable Colorado requirement.

4.   Audit of the performance of all EVS

Auditing is a critically important tool for verifying election results and confirming the accuracy and reliability of electronic voting systems. If audits are effective, then the public can have confidence in the outcome of elections even if the voting systems used are imperfect, because a statistically valid audit can detect and be used to correct human and voting system errors.

The Technology and Audit Subcommittee has reached a consensus that an improved statistically valid audit is of critical importance to improving the security and integrity of Colorado's election process. At this time the Subcommittee's recommendations are general in nature. There are a

number of questions that need to be answered before a time frame for implementation of a new audit process can be established.

Steve Pierson, PhD., Director of Science Policy for the American Statistical Association and other national experts in statistics and election audits were contacted for assistance in this effort. The Subcommittee has had initial dialog with these scholars and plans to continue to work with them to refine its recommendation for an improved audit system for Colorado elections. In addition the Subcommittee is exploring how best to approach the EVS vendors to determine whether and how the current EVS can be modified to report votes in batches that will facilitate a risk based audit.

PRELIMINARY AUDIT RECOMMENDATIONS

The Technology and Audit Subcommittee recommends that an updated audit requirement provide for a risk-based audit methodology instead of the current fixed-percent audit. All aspects of each election (mail-in voting/early voting/Election Day voting/other) shall be subject to the same audit requirements. Additional elements to be included in the recommended changes to the audit law include: (a) a requirement that all voting systems report votes in auditable batches, (b) a definition of the confidence level required, e.g. 90% or some lesser confidence level, (c) the requirement that the audit units be randomly selected, and (d) that the audit process be transparent. Finally the Subcommittee recommends that audit processes must be developed for each voting system in Colorado and accomplished in such a way that is easily understood by public officials charged with completing this work.

It is further recommended that the improved auditing process be defined by Colorado Statute setting out the general requirements, standards, and procedures for a risk based election audit. The new audit statute should further provide that the Colorado Department of State implement risk based election audits by a notice and comment rulemaking which will result in a new election rule giving guidance to the Counties as to specific requirements, standards, and procedures to be followed. *See e.g.* C.R.S. § 1-7-514; Election Rule 11.5.4. The new audit election rule is expected to provide for a process of practical auditing program development and allow for future changes within the auditing system as deemed appropriate for future improvements to the program.