

# Post-Election Audit Summary

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## **September 23, 2014 Recall Election**

*Issue 1 – Mayoral Recall*

## **November 4, 2014 General Election**

*Governor/Lieutenant Governor*

*Treasurer of State*

*Issue 94 – Valley View Tax Levy (Renewal)*

Beginning December 8, 2014 we conducted Risk-Limiting Post-Election Audits for the September 2014 Recall and November 2014 General Elections. A total of 63 unique batches were audited, amounting to a hand count of 13,559 ballots. Total ballots cast for each of the audited contests are as follows:

### **September 2014 Recall Election**

*Issue #1 – Mayoral Recall – 2,780 ballots*

### **November 2014 General Election**

*Governor/Lieutenant Governor – 350,531 ballots*

*Treasurer of State – 350,531 ballots*

*Issue #94 – Valley View Tax Levy (Renewal) – 822 ballots*

Our Risk-Limiting Audit was based upon the Kaplan-Markov method as explained by Philip B. Stark and Mark Lindeman. Auditing best practices recommend we split up the total ballots cast by precinct into multiple batch types. We utilized five batch types each consisting of one single ballot type category: Absentee, Election Day, Provisional, Post Absentee, and Post Election Day.

A master spreadsheet was created for each contest with statistical formulas to determine the number of batches that must be audited in order to reach a 90% confidence level. This confidence level means the audit has at least a 90% probability of leading to a full recount if the apparent outcome is incorrect.

We used a “Probability Proportional to Error Bound with Replacement” selection method. We assigned numbers ranging from 0000000 through 9999999 for each batch within each contest. Unique ranges of numbers were allocated to specific batches based upon their error bound - i.e. the greater the possibility of a miscount within a batch, the more numbers assigned, and the more likely it is to be selected. To obtain the precinct batch number we rolled differently colored dice numbered 0 - 9, each one of the colored dice representing one digit of the batch number.

In conclusion, we inspected a total of 13,559 ballots from the audited races. There were no discrepancies in any of the audited contests, giving a 100% accuracy rate for the September 23, 2014 Recall and November 4, 2014 General Election Post-Election Audits.

RACE	TOTAL BALLOTS CAST	REQUIRED BATCHES	TOTAL BALLOTS AUDITED	NUMBER OF PRECINCTS IN CONTEST
September 23, 2014 Recall Election - <b>Issue #1 - Mayoral Recall</b>	2,780	17	2,299	9
November 4, 2014 General Election - <b>Governor/Lieutenant Governor</b>	350,531	38	8,089	1,047
November 4, 2014 General Election - <b>Treasurer of State</b>	350,531	13	2,359	1,047
November 4, 2014 General Election - <b>Issue #94 - Valley View Tax Levy (Renewal)</b>	882	10	812	2

