

Post-Election Audit Summary

November 23, 2021 Recall Election

1 – Maple Heights District 6 Recall

There were 222 total ballots cast in the November 23, 2021 Recall Election. A hand count was conducted of 222 ballots cast in the audited contest. The accuracy rate for the post-election audit is 100%.

On December 14, 2021 we conducted one Risk-Limiting Post-Election Audit for the November 23, 2021 Recall Election. Audited race and batch details are provided below:

RACE	TOTAL BALLOTS CAST	UNIQUE BATCHES AUDITED	TOTAL BALLOTS AUDITED	NUMBER OF PRECINCTS IN CONTEST
1 - Maple Heights District 6 Recall	222	10	222	2
Total	222	10	222	2

Our Risk-Limiting Audits were 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 six batch types each consisting of one single ballot type category: Vote-by-Mail, Election Day, Early In-Person, Provisional, Post Vote-by-Mail, 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 00 through 99 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. For example, if a single batch has a high probability of a miscount, multiple numbers would be assigned to that single batch, making the random selection of that batch more likely during the audit. Each of those individual numbers might be randomly selected and included in the overall batch audit requirement, but the single batch to which those numbers are assigned would need to be audited only once. 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.

1 – Maple Heights District 6 Recall

PRECINCT NAME	NUMBER OF TIMES SELECTED	SELECTED BATCH TYPE	OFFICIAL BALLOTS CAST	AUDIT HAND COUNT	DIFFERENCE
MAPLE HEIGHTS 06-A	1	Vote-by-Mail	22	22	0
MAPLE HEIGHTS 06-B	1	Vote-by-Mail	26	26	0
MAPLE HEIGHTS 06-A	1	Election Day	101	101	0
MAPLE HEIGHTS 06-B	1	Election Day	53	53	0
MAPLE HEIGHTS 06-A	1	Early In-Person	10	10	0
MAPLE HEIGHTS 06-B	1	Early In-Person	2	2	0
MAPLE HEIGHTS 06-A	1	Post Election Day	1	1	0
MAPLE HEIGHTS 06-B	1	Post Election Day	1	1	0
MAPLE HEIGHTS 06-A	1	Provisional	4	4	0
MAPLE HEIGHTS 06-B	1	Provisional	2	2	0
Total	10		222	222	0

